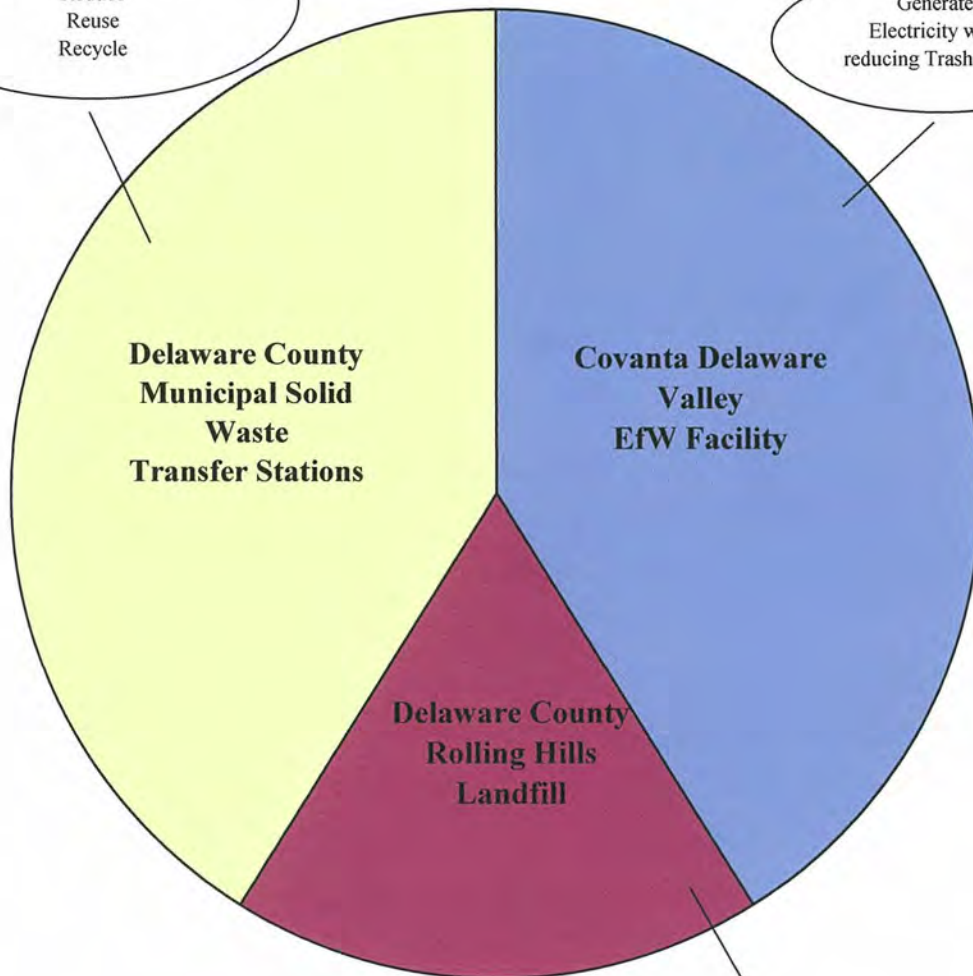


# DELAWARE COUNTY MUNICIPAL SOLID WASTE MANAGEMENT PLAN

Public & Private Programs  
Reduce  
Reuse  
Recycle

Generates  
Electricity while  
reducing Trash to Ash



Accepts Covanta's Ash Residue  
Extends the life of the Landfill

## SUBSTANTIAL REVISION 2013

# **COUNTY OF DELAWARE**

## **2013 MUNICIPAL SOLID WASTE MANAGEMENT PLAN**

### **SUBSTANTIAL REVISION**

**March, 2014**

Prepared by  
**DELAWARE COUNTY  
SOLID WASTE AUTHORITY**

# **COUNTY OF DELAWARE**

Delaware County Government Services Center  
201 West Front Streets  
Media, PA 19063  
Telephone: 610-891-5000  
[www.co.delaware.pa.us](http://www.co.delaware.pa.us)



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Mario J. Civera, Jr., Vice Chairman  
John P. M<sup>c</sup>Blain, Esquire  
David J. White  
Colleen P. Morrone



## **EXECUTIVE DIRECTOR**

Marianne Grace



## **SOLICITORS**

Michael L. Maddren, Esquire

# **DELAWARE COUNTY SOLID WASTE AUTHORITY**

Rose Tree Park ~ Hunt Club  
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Telephone: 610-892-9620 Fax: 610-892-9622  
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Recycling Website: [www.co.delaware.pa.us/recycle](http://www.co.delaware.pa.us/recycle)



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Michele Campellone, Administrative Assistant



## **SOLICITOR**

Michael F.X. Gillin, Esquire  
230 N. Monroe Street  
Media, PA 19063  
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# DELAWARE COUNTY SOLID WASTE ADVISORY COMMITTEE

## MEMBERSHIP

### CLASSES OF MUNICIPALITIES

First Class Township	John Ryan	Township of Darby
Second Class Township	Michael Trio	Township of Newtown
Borough:	Joseph Kelly	Borough of Clifton Heights
City:	Phoebe Snow	City of Chester

### CITIZENS' GROUP

Chester/Ridley/Crum Creek Watershed Assn. Brian Vadino

### INDUSTRY

Delaware County Chamber of Commerce Alex Charlton

### SOLID WASTE INDUSTRY

R.T. Opendaker, Inc.	James M <sup>c</sup> Ginn
Accurate Trash Removal	David Lasensky
Rolling Hills Landfill	Joseph Sebzda
DCSWA	Joseph W. Vasturia, P.E.
DCSWA	Michael R. M <sup>c</sup> Nichol
DCSWA	Michele Campellone

### PRIVATE RECYCLING INDUSTRY

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Accurate Recycling & Trash, Inc.	David Lasensky

### COUNTY RECYCLING COORDINATOR

Delaware County Solid Waste Authority Susan M. Cordes, Committee Chairman

### COUNTY

Delaware County Planning Department Karen Holm, Mgr., Environmental Planning

### PA DEPARTMENT OF ENVIRONMENTAL PROTECTION

PA DEP, Southeast Region	Ann Ryan, EPS
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### COUNSEL

Gillin and Associates Law Firm	Michael F.X. Gillin, Esquire
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PA DEP PLAN REVISION APPROVAL

pennsylvania

DEPARTMENT OF ENVIRONMENTAL PROTECTION

SOUTHEAST REGIONAL OFFICE

DELAWARE COUNTY  
SOLID WASTE AUTHORITY

July 14, 2014

'14 JUL 16 P2:55

Mrs. Sue Cordes  
Recycling Coordinator  
Delaware County Solid Waste Authority  
Rose Tree Park, Hunt Club  
1521 North Providence Road  
Media, PA 19063

Re: Delaware County Plan Approval

Dear Mrs. Cordes:

Enclosed is a Plan Approval for the 2013 Delaware County (County) Municipal Solid Waste Management Substantial Plan Revision that was received by the Pennsylvania Department of Environmental Protection (DEP) on May 15, 2014. This plan approval authorizes the County to implement the approved plan.

The County must implement the enclosed Plan Approval and comply with the conditions as set forth therein. Failure to implement or comply with the Plan Approval is a violation of Section 1701 of the Municipal Waste Planning, Recycling, and Waste Reduction Act of July 28, 1988, P.L. 556, 53 P.S. Section 4000.1701, and may result in enforcement action by DEP.

Any person aggrieved by this action may appeal, pursuant to Section 4 of the Environmental Hearing Board Act, 35 P.S. Section 7514, and the Administrative Agency Law, 2 Pa. C.S. Chapter 5A, to the Environmental Hearing Board, Second Floor, Rachel Carson State Office Building, 400 Market Street, P.O. Box 8457, Harrisburg, PA 17105-8457, 717.787.3483. TDD users may contact the Board through the Pennsylvania Relay Service, 800.654.5984. Appeals must be filed with the Environmental Hearing Board within 30 days of receipt of written notice of this action unless the appropriate statute provides a different time period. Copies of the appeal form and the Board's rules of practice and procedure may be obtained from the Board. The appeal form and the Board's rules of practice and procedure are also available in braille or on audiotape from the Secretary to the Board at 717.787.3483. This paragraph does not, in and of itself, create any right of appeal beyond that permitted by applicable statutes and decisional law.

**IF YOU WANT TO CHALLENGE THIS ACTION, YOUR APPEAL MUST REACH THE BOARD WITHIN 30 DAYS. YOU DO NOT NEED A LAWYER TO FILE AN APPEAL WITH THE BOARD.**



**PA DEP PLAN REVISION APPROVAL**

Mrs. Sue Cordes

- 2 -

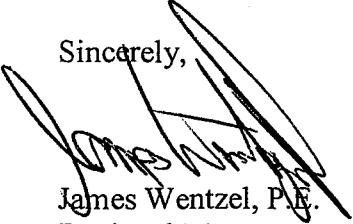
July 14, 2014

IMPORTANT LEGAL RIGHTS ARE AT STAKE, HOWEVER, SO YOU SHOULD SHOW THIS DOCUMENT TO A LAWYER AT ONCE. IF YOU CANNOT AFFORD A LAWYER, YOU MAY QUALIFY FOR FREE PRO BONO REPRESENTATION. CALL THE SECRETARY TO THE BOARD (717.787.3483) FOR MORE INFORMATION.

Please be advised that, should the County wish to reduce the bulk of waste via processing prior to final disposal after expiration of the contract with COVANTA Delaware Valley, L.P., the County will need to submit a substantial plan revision prior to the expiration of the contract. Any such plan revision will need to demonstrate that the process used to select the facility or facilities to provide such processing was fair, open, and competitive.

Questions concerning the Plan Approval should be directed to Ms. Ann Ryan at 484.250.5755.

Sincerely,



James Wentzel, P.E.  
Regional Manager  
Waste Management

Enclosure: Plan Approval

Re 30 (eh14wm)195

COMMONWEALTH OF PENNSYLVANIA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
BUREAU OF WASTE MANAGEMENT**Plan Approval**  
**2013 Municipal Waste Management Substantial Plan Revision**  
**DELAWARE COUNTY**Date Issued July 14, 2014

Under the provisions of the Municipal Waste Planning, Recycling and Waste Reduction Act of July 28, 1988, Act 101, approval is hereby given for the 2013 Delaware County Municipal Waste Management Plan Revision. Delaware County is hereby authorized to implement the approved plan revision and execute ordinances, contracts or other requirements necessary to implement the plan.

This plan approval is subject to modification, amendment and supplement by the Department of Environmental Protection ("DEP"). This approval is further subject to rescission by DEP for any violation of the applicable laws or the rules and regulations adopted thereunder, for failure to comply in whole or in part with the conditions of this plan approval and the provisions set forth in the approved plan (which is made a part hereof), or for causing any condition inimical to the public health, safety or welfare.

See attachment for plan  
approval conditions

  
\_\_\_\_\_  
FOR THE DEPARTMENT OF  
ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
BUREAU OF WASTE MANAGEMENT

**Plan Approval**  
**2013 Municipal Waste Management Substantial Plan Revision**  
**DELAWARE COUNTY**

Date Issued July 14, 2014

**Plan Approval  
Conditions**

1. The County shall implement its plan, as revised by the plan revision that was received by DEP on May 14, 2014, and as supplemented by the submission received on July 2, 2014, in accordance with the provisions of the plan except to the extent that the DEP's approval states otherwise.
2. The County may not act in a manner contrary to the approved plan or otherwise fail to act in a manner consistent with the approved plan.
3. The County shall adhere to the schedule in the approved plan for planning, designing, siting, construction or operation of municipal waste processing or disposal facilities, and waste reduction or recycling facilities or programs.
4. The plan approval is conditioned upon the requirement that a substantial plan revision be submitted to DEP in the event that the processing of waste for the purpose of waste reduction is to occur after the expiration of the contract with COVANTA Delaware Valley, L.P. The revision shall be submitted prior to the expiration date of the contract with COVANTA Delaware Valley, L.P.
5. The plan approval is also conditioned upon the requirement to submit a revised plan at least three (3) years prior to the expiration of the capacity assurances necessary to dispose of the municipal waste generated in the county.
6. The plan approval is further conditioned upon the requirement to submit a revised plan at least three (3) years prior to the expiration of the term of the county's approved plan. For the purpose of this condition, the plan approved herein shall expire ten years from the date of issuance of this approval. The county may also be required to revise its plan when otherwise required by DEP.

**THIS PERMIT IS NON - TRANSFERABLE**

Page 2 of 2

## INTRODUCTION

Each County is charged by the State of Pennsylvania to assure landfill capacity for all municipal solid waste generated within its boundaries for the upcoming ten years. In the following pages you will find Delaware County's Solid Waste Management Plan – Substantial Revision 2013. Delaware County Council charged the Delaware County Solid Waste Authority (DCSWA) with the task of completing this Plan for their approval and that of the Pennsylvania Department of Environmental Protection (PA DEP).

DCSWA is a municipal authority formed by the County of Delaware pursuant to the provisions of the Municipality Authorities Act of 1945. Delaware County Council appoints members to the DCSWA Board. The DCSWA's main objectives include the safe, efficient handling, and ultimate disposal of Delaware County's municipal solid waste (MSW).

The Delaware County Municipal Solid Waste Management Plan Non-Substantial Revision of 2002 has evolved from the Plan originally prepared in 1985. That Plan included the source separation of recyclables by residents and other generators of MSW; the plans for construction of an Energy from Waste (EfW) facility to process combustible waste generated and collected by the public and private sectors; and the acquisition and construction of a sanitary landfill to be used for the disposal of the ash residue from the EfW facility as well as non-combustibles which can be properly disposed of in a landfill and/or a metal recycler.

Information and Exhibits provided in all prior Plans (1985, 1990 and 2002) that are not in need of updating will not be included in this current Plan.

It is further indicated that adequate capacity exists in private facilities for private sector waste not suitable for disposal in the County's facility, e.g. infectious, pathological and

chemotherapeutic waste, industrial waste, construction and demolition, bulky waste, household hazardous waste, and other waste normally generated by the public and private sector.

MSW generated in Delaware County is processed by Covanta Delaware Valley, L.P., our EfW facility. As a result, this decreases the amount of landfill space needed by reducing the trash to ash while generating electricity. This EfW facility is approved to accommodate 5,850 total tons per day (TPD); however, may not exceed more than 26,200 total tons per week. Originally constructed for the County by Westinghouse, this EfW facility went online in 1992. Several years after start-up, the plant was sold to American Ref-Fuel of Delaware Valley, L.P. American Ref-Fuel was purchased in 2005 by Covanta Delaware Valley, L.P. and is the current operator of Delaware County's EfW facility.

The ash residue generated from the EfW facility is disposed of at Rolling Hills Landfill, formerly known of as Colebrookdale Landfill which is located in Berks County. This landfill was purchased by the County of Delaware in 1985 and has been operated by the DCSWA since that time.

No shortage of MSW capacity exists for Delaware County. Rolling Hills Landfill has adequate capacity to provide for the disposal of all ash residue and non-combustibles from the EfW facility as well as other waste generated by the County and other outside sources until at least 2026.

Pennsylvania Department of Environmental Protection (PA DEP) Reports that have been forwarded from Delaware County indicate that the EfW facility, transfer stations, and landfill continue to operate within PA DEP guidelines and regulations.

DCSWA maintains a recycling department where municipal and county recycling records are monitored, maintained, and developed in order to increase Delaware County's recycling diversion rate. Working with local townships and boroughs, as well as the City of Chester,

Delaware County's Recycling Coordinator also has an ongoing recycling program underway. For the year 2012, records indicate that Delaware County has a 56% recycling diversion rate.

This current *Municipal Solid Waste Management Plan Substantial Revision - 2013* also discusses ways to increase Delaware County's recycling diversion rate. Additionally, through the County's Energy and Environmental Advisory Board, we have been exploring opportunities to increase energy efficiency for Operations and Buildings for county and municipal buildings along with improving air and water quality issues.

### **PURPOSE OF PLAN**

In accordance with Pennsylvania Act 101 §501(c) and PA DEP January 2, 2010 Technical Guidance document entitled, *Guidelines for the Development and Implementation of County Municipal Waste Management Plan Revisions*, the County of Delaware has prepared this current Revision to replace the *Delaware County Municipal Solid Waste Management Non-Substantial Plan Revision* dated 2002.

This Substantial Revision of the Delaware County Municipal Solid Waste Management Plan is prepared to update and revise the 1985, 1990 and 2002 Plans. The term of this Plan is for ten years, 2013 through 2023. The objectives of this Substantial Revision include:

- ◆ Ensure sufficient processing and disposal capacity for the County of Delaware for the length of the Plan.
- ◆ Consolidate elements of the 1985, 1990 and 2002 Plan Revisions, into a single document in accordance with Act 101 §502.
- ◆ Update background information used to make planning decisions for a ten-year term.
- ◆ Update components of the Plan including the following: Description of Waste; Description of Facilities; Waste Composition Information; Waste Generation Rate Estimates; and Recycling Program Information.
- ◆ Revise the recycling aspect of the Plan.
- ◆ Assure public health and safety as it relates to proper disposal of MSW.

## **HISTORY OF THE DELAWARE COUNTY SWMP**

Delaware County and specifically the Delaware County Solid Waste Authority takes the responsibility of disposing of municipal solid waste seriously as is evidenced in Delaware County's 1985, 1990 and 2002 Solid Waste Management Plans. These Plans have been adopted by County Council at public meetings. All Plans have been submitted and approved by PA DEP. Our current Plan was given final PA DEP approval by Ron Furlan, Environmental Protection Manager for PA DEP in a letter dated October 31, 2002.

### **2013 SWMP – SUBSTANTIAL REVISION**

Notification of the County's intent to prepare a Plan Revision was submitted to PA DEP on May 26, 2009 in accordance with Title 25 §272.252(a) and (b) of the Pennsylvania Code. The County once again deferred to DCSWA, giving them the assignment of reorganizing the Solid Waste Advisory Committee (SWAC) and to complete the Plan on their behalf. The SWAC is comprised of representatives from townships, boroughs, the City of Chester, business and industry, recycling, landfill, citizens' groups, etc. This diverse committee brings the views of all citizens of Delaware County to the table. Members were chosen specifically for the knowledge and wisdom they can contribute to make Delaware County's SWMP a most complete and accurate document.

The first meeting of the SWAC was held on September 15, 2009. A list of committee members can be found on Page IV.

This *Municipal Solid Waste Management Plan Substantial Revision – 2013*, states Delaware County's intention, as required by Act 101, to continue to provide for the management

of all municipal solid waste (MSW) generated within its boundaries. The subsequent chapters quantify and characterize MSW generated in Delaware County.



## **1.0 DESCRIPTION OF WASTE**

This Chapter will attempt to provide a description of the origin and content of municipal and commercial waste generated within the County in accordance with Act 101 §502. An estimate of the quantity of waste generated, including recyclables, over the next ten years is provided in Chapter 3.

All solid waste received at the County's transfer stations enter under one of two permit classifications, 'M' or 'C'. The 'M' permit allows permitted waste haulers to bring in trucks containing residential waste. Loads are brought in to one of the two transfer stations by municipalities; private haulers under contract with specific municipalities; or through private subscription service with residents of a particular municipality. The City of Chester is permitted to take their waste directly to Covanta Delaware Valley, L.P. which is located in the City. Trucks arriving at our transfer stations with a 'C' permit contain commercial waste. Trucks containing a 'C' sticker are also permitted to dump at Covanta Delaware Valley, L.P. All trucks are weighed in and out to determine their waste tonnage. Items not accepted include industrial, construction and demolition (C&D), infectious, pathological and/or chemotherapeutic waste.

### **1.1 Municipal Solid Waste Management**

The DCSWA essentially manages all Delaware County residential solid waste. Commercial and institutional solid waste, although regulated by the DCSWA, are managed through direct relationships between the generator and municipal or private hauler. Delaware County Waste Characteristics for the years 2004 through 2012, which includes: Total Solid Waste, Total Recyclables, and the Diversion Rate for each year can be found in Table 1-1. Municipal Solid Waste Collection Figures which list the amount of MSW generated by municipality for the years 2008 through 2012 can be found in Table 1-2.

In order to access DCSWA transfer stations and EfW facility, waste haulers must be permitted by the Authority.

A list of permitted haulers can be found in the Tables listed below:

Residential Municipal Haulers	Table 1-3
Residential Subscription Haulers	Table 1-4
Commercial and Industrial Waste Haulers	Table 1-5
Institution & Educational Facilities	Table 1-6
Landscapers, Parks, and Yard Waste Haulers	Table 1-7
Municipal Highway Department Haulers	Table 1-8

#### 1.1.1 Municipal Residential Solid Waste

In 2013, sixteen (16) of the forty-nine (49) municipalities in Delaware County utilized municipality owned and operated vehicles to collect their residential waste. Twenty-four (24) municipalities contracted with private haulers to provide collection services. The remaining nine (9) municipalities do not provide collection services for their residents; however, require, through ordinance, that every residential property/establishment provide for the separate, regular and scheduled collection of solid waste by a private waste contractor. This method is considered subscription service. Table 1-9 lists the solid waste collection system employed by each municipality in the County along with the 2010 U.S. Census Bureau population and municipalities' classification.

#### 1.1.2 Residential Waste Stream

Residential MSW generation from 2004 through 2012 can be found in Table 1-2. Figures are based on DCSWA waste receipts collected from Transfer Stations #1 and #3 and Covanta Delaware Valley, L.P..

DCSWA waste receipts indicate all MSW generated; however, waste receipts were not able to identify the amount of waste each subscription hauler removed from a particular municipality. Through December 2008, the formula used to arrive at an estimated tonnage for

those municipalities was as follows: DCSWA took the total tons of MSW (documented but not credited to a particular municipality); divided it by the total number of residents in municipalities with MSW subscription contracts (using U.S. Census Bureau Records) to arrive at the amount of MSW generated per person, per year. That number was then multiplied by the population for each municipality with subscription service to arrive at an estimated tonnage per municipality as listed in Table 1-2. A more refined system began in January 2009, requiring haulers to provide manifests declaring by percentage, where each load originated from when going over our scales.

## 1.2 Radioactive Monitoring

PA DEP's new Municipal Waste Management Regulations require each solid waste processing and disposal facility to have an *Action Plan* for the monitoring and response to radioactive materials entering each facility. This Action Plan has been prepared in accordance with the PA DEP, Bureau of Radiation Protection and Bureau of Land Recycling and Waste Management Guidance Document #250-3100-001 effective September 16, 2000, "*Final Guidance Document on Radioactivity Monitoring at Solid Waste Processing and Disposal Facilities.*" The alarm procedures have been posted in each scale house.

Monitors have been installed at both Transfer Stations; Covanta Delaware Valley, L.P.; and at Rolling Hills Landfill in order to comply with PA DEP requirements as well as safeguard what is ultimately deposited at Delaware County's Landfill.

In October 2006, DCSWA submitted a request to update the Radiation Protection Action Plan to PA DEP for our Chester Transfer Station (ID No. 101188) as well as our Marple Transfer Station (ID NO. 101103). The amended Waste Management Permit was issued based upon application ID No. 101188 (APS No. 267617, AUTH No. 672707) and application ID No. 101103 (APS No. 324518, AUTH No. 671432) on May 23, 2007 (Exhibit 1-A). Updates were

designed to streamline the reporting requirements as well as action to be taken for all Level One and Level Two Alarms.

Monitor systems are calibrated annually to traceable cesium -137 source, at a level no higher than  $10 \mu\text{R h}^{-1}$  above the average background and the system is set to detect gamma ray energies of 50 kiloelectron volts and higher.

The Action Plan describes in detail procedures to be followed when a load alarm sounds. Based on the radiation level, action may include notifying PA DEP, Bureau of Radiation Protection and engaging the services of a certified health physicist to isolate and determine the type and degree of radioactive material. Disposition of radioactive material is then determined by the contracted certified health physicist in accordance with PA DEP regulations..

All incidents are called into and maintained in a “Hot Load Logbook” at the DCSWA’s main office in Media, PA. Exhibit 1-B is a record of all alarmed incidents for the year 2012. It should be noted at this time, that the most frequent instance of alarms are by residentially generated medical wastes.

### 1.3 Auxiliary Residential Programs

Other waste removal programs provided to Delaware County residents include: Seasonal Leaf Waste Collections; Christmas Tree Recycling; Yard Waste Recycling (winner of a PA Waste Watcher Award for 2009 for providing a convenient drop-off site for all county residents); Household Hazardous Waste Drop Off Collection Events (winner of the Governor’s Award for Environmental Excellence in 1999, 2001 and 2007 along with the prestigious 2011 North American Hazardous Materials Management Association Award); Motor Oil, Antifreeze, and Car Battery Collection Sites; County operated Igloo Drop-Off Sites for glass, bimetallic, aluminum and plastics (winner of a PA Waste Watcher Award for 2012); Municipal Drop Off Centers; Private Drop Off Centers; Annual Darby Creek Clean-Up Program; independently run

citizens' groups Recycling Programs, as well as Delaware County's Cell Phone Collection Program, (winner of a PA Waste Watcher Award in 2000 for initiating a Pilot Program and again in 2007 for sustaining and expanding this program to include all Delaware County Libraries; County Buildings; and many Municipal Buildings). Additionally, at the DCSWA's main office, Drop-Off Collection Boxes are available for inkjet and toner cartridges; CFL's; mercury containing thermostats; battery recycling for ni-cad, lithium, button batteries; cell phones; shoes for our shoebox recycling program and prescription eye glasses.

Delaware County hosts annually, four one-day collection events for Household Hazardous Waste. Currently, three locations offer E-Waste collection in conjunction with the HHW Collection Events. Separate E-Waste Events have been held by the county, municipalities and non-profits.

Paper Shred-It Events are also hosted by municipalities and non-profits, typically in the spring and fall each year.

Over the last two years, numerous Police Departments and Municipalities in Delaware County have become DEA designated collection locations for their spring and fall one-day Drug Take Back Programs. These programs will be further discussed in Chapter 4.

#### 1.4 Commercial Waste Management

Private haulers provide collection services for businesses, industry and institutions in Delaware County. Only trucks holding valid DCSWA Permits may use either county-owned transfer facility. Permits issued by the DCSWA require that a hauler maintain the proper licenses, registrations, and insurance certificates. Trucks and trailers registered to transport municipal, commercial and/or residual waste weighing in excess of 17,000 pounds must first provide DCSWA with written authorizations from PA DEP in the form of an ACT 90 sticker, prior to obtaining a permit. Current stickers must be prominently displayed on the cab of each

vehicle. A list of all commercial waste for the years 2006 through 2012 can be found in Table 1-10.

### 1.5 Institutional Waste Management

Institutional Waste is defined as waste generated by government organizations and non-profits. Government organizations either utilize municipal vehicles or private haulers for collection and disposal of municipal waste. Non-Profit groups typically rely on private contractors.

### 1.6 Special Handling Wastes

Special handling wastes include: infectious, pathological and chemotherapeutic wastes, incinerator ash residue, sewage, septic, and water sludge and does not meet the definition of residual or hazardous waste.

#### 1.6.1 Infectious, Pathological and Chemotherapeutic Waste

Infectious, pathologic and chemotherapeutic wastes are generated by sources such as: hospitals, clinics, nursing homes, commercial laboratories, doctors and dental offices. Infectious and pathological waste, as defined in 25 PA Code §271.1 is “MSW which, unless processed, disposed, stored, collected, or transported is or may be contaminated by a disease producing micro-organism or material, or may harm or threaten human health.” Infectious and pathological wastes include but are not limited to: contaminated laboratory instruments, broken glass, sharps, dressings, human and animal tissue, organs, and fluids. The Pennsylvania Code defines chemotherapeutic waste in 25 PA Code §271.1 as “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.” Chemotherapeutic waste results from medical procedures such as chemotherapy and drug treatments.

#### 1.6.2 Medical Waste Disposal

Medical waste is disposed of through a variety of methods, which include on-site autoclaving, and/or hauling by private medical waste contractors to off-site approved medical disposal facilities. In general, chemotherapeutic wastes are placed in yellow bags. This waste is transported to an approved medical waste disposal facility where it is incinerated. Riddle Memorial Hospital is currently the only hospital in the county that is operating a medical waste incinerator and will be discussed further in Section 2.6.1.

#### 1.7 Construction and Demolition Waste

Demolition wastes are generated by building removal, construction or alterations. Bulky wastes include items such as: white goods; oversized household items; lumber that has a cross-sectional area greater than 16 sq. inches and waste that cannot be disposed with regular municipal trash.

Construction and Demolition (C & D) waste is not generally accepted at either of the County's Transfer Stations. A list of C & D Transfer Stations can be found in Table 2-1. Non-combustibles; typically, white goods are accepted and stored for disposal/recycling through a scrap metal recycler. Bulky wastes that are accepted at Transfer Station #1 would primarily be from the Annual Darby Creek Clean-Up Events. Metal from this event is recycled through scrap metal recyclers. Bulky waste is not accepted at Transfer Station #3.

#### 1.8 Sewage and Septage Waste Stream

Sewage is collected from sewer systems and the sludge is processed by sewage treatment plants. Septage is produced in onsite septic tanks and hauled to sewage treatment plants where it is treated, adding to the volume of sludge produced in Delaware County.

Most of Delaware County's domestic sewage is treated by eleven public organizations and governmental authorities. The Philadelphia Water Department provides sewage treatment for twenty-six of Delaware County's municipalities. Except for Aston, Concord and Tinicum,

DELCORA serves most of the south and south-central part of the County, including the City of Chester, Chester Township (part), Upland, Parkside, Trainer, Marcus Hook, Lower Chichester (part), Brookhaven (part) Rose Valley (part), Nether Providence (part), and Eddystone. SWDCMA serves most of Aston and Middletown and portions of Brookhaven, Chester Township, Upper Chichester and Upper Providence. The Central Delaware County Authority services all or parts of: Edgmont, Marple, Morton, Nether Providence, Newtown, Prospect Park, Ridley Park Borough, Ridley Township, Rutledge, Springfield, Swarthmore, and Upper Providence. The Muckinipates Authority services all or parts of: Springfield, Ridley Township, Upper Darby, Darby Township, Clifton Heights, Folcroft, Glenolden, and Norwood. The Darby Creek Joint Authority services all or parts of: Darby Township, Springfield, Upper Darby, Radnor, Haverford, Marple, Aldan, Clifton Heights, Collingdale, Colwyn, Darby Borough, Folcroft, Lansdowne, Sharon Hill, and Yeadon.

Large areas of western Delaware County, including all or most of Bethel, Chadds Ford, Concord, Edgmont, Thornbury, and Upper Providence Townships are served by individual or community on-lot septic systems. Other municipalities with smaller but still significant unsewered areas include Chester Heights, Middletown, Newtown, Nether Providence, and Upper Chichester. A capacity and generation summary of sewage and septage sludge facilities can be found in Table 1-11. A generation summary of water sludge facilities can be found in Table 1-12. Table 1-13 lists sludge handlers and cesspool dumpers for the County area.

#### 1.9 Leaf and Yard Waste

Leaf and yard waste is comprised of leaves, tree trimmings, brush, shrub pruning, household and bedding plants and other landscape and gardening wastes.

The DCSWA began in the early 1990's accepting leaves for composting at their Compost Farm located adjacent to the Chester Transfer Station at 2300 Concord Road, Chester, PA



19013. For the years 2006 through 2008 between 8,200 - 11,100 tons of leaf and yard waste was accepted at our Farm. Beginning in 2009, Marple and Haverford began jointly operating their own farm and our totals have since been dramatically reduced. Amid neighbors' complaints in 2012 they began transferring their leaf and yardwaste to Two Particular Acres in Montgomery County for composting. Further elements of Delaware County's Leaf and Yardwaste Program will be discussed in Chapter 4.

#### 1.10 Automotive Parts Waste

Automotive Parts' Recycling has come a long way in the last ten years. Automobile bodies are not only recycled but are now made with recycled content steel, helping to close the loop in recycling. 100% of the steel used to make today's automobiles, can be recycled. Currently, there are no Auto Recycling Yards located in Delaware County.

##### 1.10.1 Tire Waste

Passenger cars and light truck tires account for approximately 80% of all tires discarded in the United States. The remaining 20% include: bus, truck, and off-road vehicles. The practice of retreading tires has all but come to a halt, being deemed unsafe. Tires can be recycled locally through companies found in Table 1-14.

All tire vendors are now required by law to accept old tires for recycling. Tires are either sent to a cement factory to be used as fuel or recycled into new products. One example: they are shredded or molded into mats and used under playground equipment. Experiments to mix shredded tires into macadam to make roadways and driveways more durable are currently being conducted. A Delaware County example of this new macadam can be found at the Pennsylvania Resource Council (PRC), which is located on Providence Road in Edgmont Township. Shredded tires have been mixed with macadam and used to resurface their driveway. Discarded tires are also used to make roofing shingles. PRC's roof on their main building which looks as though

made from slate, are actually shingles made from recycled rubber. These shingles are marketed by the manufacturer to outlast slate roofs. Villanova University has used a very fine shredded crumb rubber which when spread on their practice football field mixes in with the soil, softening the original clay-based soil (which softens the blow when being tackled); it also allows the surface to drain better.

Many Delaware County companies that accept tires for recycling have indicated that they recycle them with Emmanuel Tires in Conshohocken, Montgomery County, PA.

#### 1.10.2 Automotive Batteries

In 1990, automotive batteries ranked the highest among products containing lead entering the MSW stream. With the onset of recycling, we have reduced the amount of heavy metals in landfill leachate and incinerator emissions. Battery vendors now accept a customer's old battery for recycling. Batteries can also be recycled at a Household Hazardous Waste Collection Event or even locally on any given day through local companies as listed in Table 1-14.

#### 1.10.3 Motor Oil and Antifreeze

Delaware County provides its residents with a list of businesses that accept Motor Oil and Antifreeze for recycling. A list of vendors can be found in Table 1-14. Automotive repair facilities recycle at a minimum, motor oil, antifreeze, metal parts, and car batteries. Residents may also bring motor oil and antifreeze to any Household Hazardous Waste Collection Event for recycling.

#### 1.11 Household Hazardous Waste

Household hazardous waste (HHW) is the discarded, unused, or remaining portions of hazardous household products. Products, which are poisonous, toxic, flammable, caustic, corrosive, reactive, explosive, or a combination thereof are considered HHW.

Delaware County has operated a successful Household Hazardous Waste Collection Program since 1993. At that time, three events were held annually. We have expanded this successful program, now holding four (4) annual HHW Events. In 2002, we began accepting computer-related items and TVs at one HHW Event and collected 7,000 lbs. In 2004, we expanded by collecting this waste at two of our events and by 2007, expanded it to three of our four events. Beginning in 2012, we again expanded what E-Waste we would except to include any small appliance with a cord, excluding those containing Freon at three of our four events. In 2012 we accepted 236,663 lbs of E-Waste which represented 59% of the material collected in 2012.

Since 1998 through Inter-Governmental Agreements, Delaware, Bucks, Chester and Montgomery Counties as well as the City of Philadelphia have been working together in a joint Southeastern Regional Effort to remove HHW from homes.

#### 1.12 Special Events

All Delaware County Parks offer trash receptacles throughout along with County Recycling Igloos for glass bottles and jars, bimetallic and aluminum cans, and plastics #1-#2. Municipalities are aware that when offering residents use of their parks, they must also provide recycling bins.

Each year, typically around Earth Day, the Darby Creek Valley Association (DCVA) members hold a one-day event to clean local streams. They also work with the John Heinz Wildlife Preserve to schedule a day and/or a weekend (depending on the number of volunteers) around the same time; however, they try to take advantage of when the tides are out the furthest to clean up as much of the wetlands as possible. DCSWA partners with DCVA and local haulers, requesting they provide dumpsters to various sites throughout the county while DCSWA

allows them to dump this debris at no charge at Transfer Station #1. Metals are typically placed in members' trucks for recycling.

Currently, municipalities such as the City of Chester, Chester Heights, Concord, Haverford, Marple, Upper Darby and Swarthmore hold one-day recycling Shred It and/or E-Waste Recycling Events. Local non-profits such as PRC and area high schools' environmental clubs often host these events. As of September, 2013, thirty-four (34) separate and independent E-Waste Events have either taken place or have been scheduled to allow Delaware County residents to responsibly recycle their electronics. It appears this trend will continue into the foreseeable future.

## **2.0 DESCRIPTION AND LOCATION OF FACILITIES**

Act 101 requires that each county's Plan provide a description of where municipal waste is currently being disposed of or processed. Also required under §502(c) of Act 101, is an assessment of the remaining available permitted disposal capacity of these facilities. A questionnaire was sent to each municipality in preparation of compiling the information for this Plan, see Appendix A.

### **2.1 Existing Delaware County Owned Facilities**

The County of Delaware owns two transfer facilities, one in Chester Township and one in Marple Township, Delaware County as well as Rolling Hills Landfill in Earl Township, Berks County.

A list of permitted County owned/designated and Private Transfer Stations can be found in Table 2-1. A map designating these locations as well as Covanta, Delaware County's EfW Facility, can be found in Exhibit 2-A.

### **2.2 Designated MSW Disposal Facilities**

Delaware County's MSW designated disposal facilities will remain the same as those approved in the current Plan and noted below.

- ◆ Rolling Hills Landfill located in Earl Township, Berks County. The operation and ownership by the DCSWA remain in affect.
- ◆ Covanta Delaware Valley, L.P. EfW Facility located in the City of Chester accepts all Delaware County MSW. This facility was previously known of as American Ref-Fuel and before that Westinghouse.
- ◆ Waste brought to DCSWA's Transfer Station #1 and Transfer Station #3 via trash trucks are then transferred using tractor trailers to the Covanta Delaware Valley, L.P. EfW facility. This allows for less commuting or down time for trash truck operators; cuts down on wear and tear of vehicles; and improves quality of life issues such as decreased noise and air emissions.

The County's designated transfer facilities; Transfer Station #1, located in Chester Township and Transfer Station #3, located in Marple Township remain unchanged. These

facilities can/will accept all solid waste generated by residents, commercial establishments, institutions, and industries located in Delaware County. DCSWA controls and directs the flow of municipal solid waste to its designated transfer stations, EfW and disposal facilities.

Infectious, pathological, and chemotherapeutic wastes are not accepted at County MSW operated or contracted facilities. Adequate capacity exists in private facilities to accept the above wastes.

### 2.2.1 Delaware County Waste Transfer Facilities

DCSWA owns and operates two transfer stations in Delaware County, one in the northern section and one in the southern section of the County. Instead of long commutes, this allows municipalities and commercial haulers a convenient location to dispose of trash. Additionally, this also reduces the 'down time' associated with emptying the vehicles which improves employee productivity as each truck often holds up to three men. It also reduces gas, wear and tear on vehicles, as well as decreased noise and air emissions for these vehicles.

Transfer Station #1 is a thirty-acre facility located at 2300 Concord Road in Chester Township. The permitted capacity is 1,200 tons per operating day. Based on five (5) operating days per week, the facility has the capacity to process and transfer 312,000 tons of MSW per year. In 2012, Transfer Station #1 processed 92,120 tons of residential municipal waste and 70,091 tons of commercial solid waste. Also, this site hosts the County's nine acre Compost Farm which accepted 3,472 tons of residential and commercial leaf and yardwaste in 2012.

Upon arrival at the Transfer Station, vehicles proceed to the inbound hydraulic scales where they are weighed, while passing through radiation monitoring equipment. They then proceed to and drop their load on the 24,500 square foot floor space of the station. The truck continues to the outbound scales to weigh out and receive a printed receipt. A front-end loader pushes the refuse to an opening in the floor where solid waste is dropped into 90-100 C.Y. top-

loading transfer trailers. All transfer trailers are covered, passing through radiation monitors and weighed out prior to their transport to Covanta Delaware Valley. Waste Management, a private contractor, is responsible for loading and transferring all collected waste to Covanta Delaware Valley's, EfW facility in the City of Chester. Covanta is responsible for transporting the ash residue via their private contractor to Rolling Hills Landfill.

Transfer Station #3 is a twenty-five acre facility located at Sussex Boulevard and Marpit Drive in Marple Township. The permitted capacity is 1,200 tons per day. Based on five (5) operating days per week, the facility has the capacity to process and transfer 312,000 tons of MSW per year. In 2012, Transfer Station #3, processed 121,138 tons of residential municipal solid waste and 32,322 tons of commercial solid waste.

A front-end loader pushes the refuse to an opening where solid waste is dropped into an ejection system where it is compacted into a transfer trailer. Aside from this difference, Transfer Station #3 operates in the same fashion as Transfer Station #1, noted above.

### 2.2.2 Rolling Hills Landfill

Rolling Hills Landfill, located at 583 Longview Rd., Boyertown, Earl Township, Berks County has been in existence since 1952 as a municipal solid waste facility and accepted MSW from Delaware County pursuant to short-term contracts with the owner/operator, RRM Corporation. DCSWA purchased Rolling Hills Landfill (formerly Colebrookdale Landfill) in 1985. As part of the purchase agreement and transfer of the Solid Waste Permit #100345, DCSWA relocated approximately one million C.Y. of waste previously disposed of in unlined areas. Rolling Hills Landfill presently comprises approximately 680 acres. Of that total acreage, 240 acres are permitted by PA DEP for use as Rolling Hills Landfill disposal area and support facilities; 234 acres are woodlands; and 206 acres are considered buffer zones.

In 1987, DCSWA completed the trash relocation project and submitted an expansion application to the Department. DCSWA had also negotiated contractual Host Municipal Agreements with Berks County and Earl Township. Part of the Host Agreement with Earl Township included the purchase of the portion of Shenkel Road situated within the permitted boundaries.

DCSWA submitted a second expansion application and obtained approval in December, 1990. The 1990 permit enabled the overtopping of a portion of the old landfill disposal area with the condition that the overtopped cells meet current construction standards, including a geogrid reinforced double liner system. Also, the involvement of the local citizens that monitor the landfill was incorporated into the 1990 DCSWA landfill permit. Said permit provided for an additional 7,830,000 C.Y. of disposal capacity. The newest permit modification, approved in 1998, provided for cell construction to connect the two disposal areas by eliminating the bisecting township roadway. At that time the name of the site was changed to Rolling Hills Landfill. The 1998 permit provided for additional capacity of 11,871,000 C.Y. with approved average tonnage of 3,200 tons per day.

A breakdown of Annual Waste Totals accepted at Rolling Hills Landfill from 2006 through 2012, can be found in Table 2-2. Individual totals for the years 2006 through 2012, can be found in Table 2-3. As per our most current PA DEP Municipal Waste Landfill Annual Operations Report Form, prepared June 2012, the Estimated Remaining Life is 16.58 years which will more than last the length of this current Plan.

DCSWA is pursuing opportunities to purchase equipment that would enable the landfill to harvest methane gas for clean, green, renewable electricity while improving air and water quality. The project will utilize landfill gas to fuel a reciprocating engine generator that will produce electric power and capture excess waste heat that will then power the site leachate



treatment plant. The amount of energy which this project is projected to generate equates to an estimated 8.8 million kWh. Based upon prior history and actual site experience, it is estimated that 4.2 million pounds of methane will be eliminated by the introduction of the engine/generator during the initial year of operation. Excess energy will be sold on the electric wholesale market. This project will also complement Delaware County's desire to improve quality of life issues for residents of Delaware County and within the Commonwealth. Further examples of Delaware County's environmental commitment can be found in Chapter 4.

### 2.3 Delaware County Compost Farm

Delaware County's Compost Farm is a nine (9) acre farm located on the grounds of Transfer Station #1, 2300 Concord Road, Chester Township. A map designating municipal involvement in the farm as well as those operating their own facility can be found in Exhibit 2-B.

### 2.4 Energy from Waste (EfW) Facility

Covanta Delaware Valley, L.P. is located at 10 Highland Street, in the City of Chester, Delaware County. Trucks carrying waste enter this site via their Second a/k/a Route #291 and Harwick Street Entrance. This EfW facility accepts all of Delaware County's residential and commercial trash. The *Restated Service Agreement between Delaware County, PA and Westinghouse Electric Corp.* which was accepted on April 7, 1992 is included in this Plan, see Appendix J. Delaware County entered into a twenty-five (25) year agreement with Westinghouse, now known of as Covanta Delaware Valley, L.P.; see Appendix K, which ensures disposal capacity until 2017. At this time, DCSWA is attempting to negotiate a long-term contract extension with this EfW facility.

Municipal and commercial Delaware County solid wastes received at the County-owned Transfer Stations are transported to the EfW facility via a contracted hauler. Waste is deposited

on their tipping room floor. From there it is pushed onto a conveyor belt where it begins its EfW conversion. Covanta Delaware Valley, L.P. is responsible for the safe transportation of the ash residue and bulk waste to Rolling Hills Landfill. In 2012 Covanta Delaware Valley, L.P. extracted and recycled 34,772 tons of ferrous metals and 889 tons of non-ferrous metals.

Covanta continues to explore opportunities to make their facility more energy efficient and environmentally friendly. 2012 highlights include:

- Reduced their emissions for the third year in a row.
- Continue to partner with DCSWA to safely dispose of HHW throughout the County.
- Produced 618,014 megawatt hours of energy, representing enough electricity to power 53,740 households annually in our community.
- Waste process and recycling enabled Covanta to reduce greenhouse gas (GHG) by 1.2 million tons.
- Continues to be a Voluntary Protection Program (VPP) Star Facility.
- On-going commitment to the local community through their participation in the Chester Environmental Partnership.
- On-site water reuse program which minimizes the impact the facility has on local water consumption. They are currently working on using Delcora discharge water for their process, which will reduce potable water usage by 1.75 million gallons per day.
- Covanta has been designated as an OSHA VPP Star Facility. The Star Program acknowledges exemplary worksites that have:
  - Implemented comprehensive and successful safety and health management systems.
  - Achieved injury/illness rates below their industry's national average.

It is expected that Covanta's commitment to energy efficiency and the environment will continue throughout the length of this Plan and beyond.

## 2.5 Other Existing Waste Transfer Facilities

Aside from the two County-owned transfer facilities there are three (3) privately owned transfer stations. A list of these transfer stations along with permitted ID #, address, contact, and telephone number can be found in Table 2-1. A map designating these facilities can be found in Exhibit 2-A. Questionnaires were sent to each transfer facility in order to compile the

information listed below. A copy of the questionnaire can be found in Appendix B. A brief description of each private transfer station's operation follows.

#### 2.5.1 Savoy Transfer Station

This facility is located at 52 Concord Road in Chester Township, Delaware County. The facility currently is permitted for 50 tons per day of construction and demolition debris. In 2012, this transfer station accepted 5,300 tons; well below their permitted 13,000 tons per year. Their C&D waste is transferred to a landfill outside of Delaware County. Savoy also accepts aluminum, bimetallic cans, corrugated as well as steel and light iron. In 2012, they accepted 738 tons. Metals were sent for processing to State Metals and Camden Iron, while wood waste was sent to Peninsula Composting Farm in Wilmington, Delaware. Roofing was sent to various facilities for recycling.

#### 2.5.2 Waste Management - Delaware Valley South

Waste Management is located at 408 S. Oak Avenue, in Primos, Upper Darby Township. This private refuse hauler primarily services at this location commercial businesses and C & D contractors which generally includes: rubble, masonry, construction and demolition debris. However, they do allow Delaware County residents to, for a fee, drop off their items; typically bulky items. Waste from this transfer station is transferred into trailers and taken to Delaware Recycling Products Incorporated in New Castle, Delaware for further processing. Waste Management's permitted capacity is 1,500 tons per day. Based on five (5) operating days per week, this facility is permitted for 390,000 tons per year. The total solid waste received in the year 2012 was 5,091 tons. Waste Management is operating well within their limits.

On-site at this location, is a single stream container for corrugated; all grades of paper; plastics #1-#7; clear, green and brown glass; bimetallic and aluminum cans. In 2012, 234 tons of recyclables were accepted at this Drop-Off site. Single stream recycled items are currently

transported from this location to their recycling MRF located at 5245 Bleigh Avenue in the City of Philadelphia.

### 2.5.3 Accurate Trash and Recycling

Accurate Trash and Recycling is located at 508 E. Baltimore Avenue, Lansdowne (Upper Darby Township). This former transfer station has just been newly re-permitted to handle New C&D. New C&D is debris from construction sites which includes: rocks, bricks, wood, drywall, shingles, etc. The permitted maximum daily capacity is 300 tons per day. They are also permitted to accept asphalt shingles with a 500 ton per day capacity. This facility operates Monday through Friday.

This site also serves as a Drop Off location for paper, cardboard, ferrous and non-ferrous items. Further information on the company's transfer station and recycling opportunities can be found at: [www.accuraterecycling.com](http://www.accuraterecycling.com).

## 2.6 Incinerators

All Delaware County Hospitals were sent questionnaires in order to compile the necessary information for this Plan. A copy of the questionnaire can be found in Appendix C. All hospitals have installed Radiation Monitors, according to PA DEP regulations. Riddle Memorial Hospital is the only hospital that operates an incinerator.

### 2.6.1 Riddle Memorial Hospital

The only small-scale hospital incinerator currently in operation in Delaware County is located at Riddle Memorial Hospital, 1068 W. Baltimore Pike, Media (Middletown Township), operating under Permit #400590. Permitted capacity for their incinerator which they use for non-regulated, infectious and chemotherapeutic waste is 700 tons per year. In 2012, this waste amounted to 237 tons, operating well below permitted capacity.

All remaining hospitals operate San-I-Pak Autoclave Steam Sterilizer and/or Compactor Systems. Infectious Waste is boxed and sent off-site for processing via autoclaving to infectious and chemotherapeutic waste processors. Companies that handle this waste include: Stericycle, Inc., 1120 Industrial Blvd., Southampton, PA 18966; Curtis Bay Energy, 3200 Hawkins Point Rd., Baltimore, MD 21226; Stericycle, Inc, 1525 Chestnut Hill Road, Morgantown, PA 19543 and Stericycle, Inc., 1168 Porter Ave., Hall River, NC 27758.

#### 2.6.2 DELCORA Sewer Treatment Plant (STP)

DELCORA STP main office is located at 100 E. 5<sup>th</sup> Street in the City of Chester operates an incinerator for disposal of their sewage sludge. Permitted capacity is 17,532 tons annually. As stated in Chapter 1, Table 1-12 lists Potable Water “sludge” incinerator ash produced per year, per site as well as wastewater “sludge” produced per year per site. DELCORA’s “sludge” is incinerator ash containing sludge and incinerator residue from the DELCORA facility as well as from the Concord Waste Water Treatment Plant (WWTP), Media WWTP, Tinicum WWTP, Thornbury WWTP and two plants in Chadds Ford. DELCORA ash is disposed of by VFL Landfill in Wilmington, Delaware where it is used as landfill cover. There appears to be ample capacity for the length of this Plan.

#### 2.7 Transfer Facilities Summary

Delaware County’s designated Transfer Stations #1 and #3 accept all MSW except Class A and B wastes. In the year 2012, DCSWA Transfer Station #1 and #3 accepted a combined total of 315,671 tons of municipal and commercial solid waste, operating at a 51% annual capacity. Single stream recycling has had an obvious impact on the MSW brought to our Transfer Stations as tonnage has steadily decreased in the past five years. Consequently, there is ample available permitted capacity to last beyond the length of this Plan.

Private transfer facilities either transport their waste directly to Covanta Delaware Valley or to private landfills outside of Delaware County. As noted above, DCSWA's Transfer Stations have enough permitted capacity to accept waste not currently directed to our transfer stations. Directing waste generated in Delaware County to one of DCSWA's transfer stations or to Covanta directly further protects valuable landfill space as all Delaware County waste will first be processed at our EfW facility which not only generates electricity but reduces the volume of space needed in our landfill. As a result, even with additional tonnage that may be directed toward our facility, there is ample available permitted capacity to last the length of this Plan.

#### 2.8 Energy from Waste (EfW) Facility Summary

Per the *Restated Service Agreement between Delaware County Solid Waste Authority and Delaware Resource Management, Inc.*, dated 1997, Covanta Delaware Valley, L.P. will accept all waste from Transfer Station #1 and Transfer Station #3, as well as County waste disposed directly at Covanta Delaware Valley, L.P. per this agreement.

Currently Covanta Delaware Valley, L.P. is the only MSW EfW facility operating in Delaware County. A diagram indicating this site's EfW operations can be found in Exhibit 2-C.

Besides Delaware County, Covanta Delaware Valley, L.P. currently accepts MSW from the City of Philadelphia and the states of Delaware, New Jersey, Connecticut, and New York. Such actions are consistent with Delaware County's Solid Waste Management Plan as well as applicable laws and regulations.

Covanta Delaware Valley, L.P. is obligated by contract to accept all waste generated in Delaware County and indicates it has the permitted capacity to exceed the length of this Plan.

#### 2.9 Disposal Facilities Summary

Rolling Hills Landfill is owned and operated by the DCSWA. In the year 2012, Rolling Hills received 672,202 tons of waste. Of that, 368,951 tons of ash originated from Covanta,

Delaware County; 109,203 tons of ash originating from Montgomery County; 35,063 tons of ash originating from Berks County; 6,431 tons of ash from New Jersey. Also disposed of in this landfill is trash, C&D, and residual amounting to 152,555 tons bringing the overall total for 2012 to 672,203 tons. The landfill has a permitted capacity of 998,400 tons per year. Rolling Hills Landfill's breakdown for the years 2004 through 2012 are shown in Table 2-2. A map of the landfill can be found in Exhibit 2-D. As reported and submitted in our 2012 Annual Municipal Waste Landfill Annual Operations Report Form, ample capacity exists beyond the length of this Plan.

### 3.0 ESTIMATED FUTURE CAPACITY

The estimated future capacity of Delaware County disposal and processing facilities is dependent upon continued operations of existing facilities; the continued growth in recycling and waste reduction programs; and the population growth rate.

Waste generation estimates, projected over the next ten (10) years are based upon population forecasts provided by the Delaware County Planning Department (DCPD) through 2020. These forecasts can be found in Table 3-1. Recycling and waste reduction will be discussed in Chapter 4.

A *Philadelphia Inquirer* article dated April 21, 2009 entitled *Recession brings a drop in trash* indicates that with less to produce and consume, there's less to waste. It indicates using PA DEP and PWIAA as sources that the U.S. total in 2008 of 505 million tons were down more than 2 million tons from 2007. Specifically in 2008, Pennsylvania's waste received at municipal landfills and incinerators was down 300,000 tons from 2007. The article goes on to state that, "*It's too soon to tell if the drift to thrift will last.*"

#### 3.1 Residential Solid Waste

The total amounts of MSW generated in Delaware County for the years 2004 through 2012 are listed in Table 1-2. Throughout the County, the average per capita generation rate for residential waste, which was 2.29 pounds per day in 1995 has been declining and fell to 2.12 pounds per day by 2012.

#### 3.2 Recycling Totals

The total amount of recyclables for the years 2004 through 2012 can be found in Table 3-2. This lists the total Delaware County Residential, Commercial, and Industrial Recycling along with the Recycling Rate. A concerted effort has been made to harvest previously untapped totals. Data bases have been created and expanded. This has proven to be an invaluable tool.



Factors such as the decline in the need for the volume of cardboard to package items such as: computers and TVs (they're slimmer and lighter); packaging items in lighter weight containers such as condiments going from glass almost exclusively to plastic; reducing the weight in bimetallic and aluminum cans reduces the weight of the items in need of recycling. In any event, whether these items are being disposed of as trash or recycling, the packaging has become lighter and both MSW and recycling numbers are falling.

Until mid-2009, most municipalities in Delaware County had curbside recycling programs that accepted three to six items. However, the number of programs involving single stream recycling programs increased as contracts came up for renewal. In 2013, totals are expected to outpace prior years with 39 municipalities now offering Single Stream Recycling while two other communities collect the same items but commingle or still separate paper and cardboard (mainly for a better reimbursement). It is expected that municipalities are going to begin to request §902 funding for larger recycling containers.

### 3.3 Ash Residue

Covanta Delaware Valley, EfW facility, processes up to 5,250 tons per day of Solid Waste, Monday through Friday and 1,100 tons on Saturdays. From this waste, electricity is generated which is sold to electric suppliers. Annual permitted MSW capacity is 1.1 million tons.

Covanta Delaware Valley accepts waste from sources other than Delaware County. Regardless of where the solid waste was generated, all ash is deposited at Rolling Hills Landfill. Our landfill accepted 519,648 tons of ash in 2012. Of that, 368,951 tons were from Covanta, Delaware County. This represents 71% of the ash accepted at Rolling Hills for 2012. Covanta Delaware Valley's annual figures for MSW and ash can be found in Table 3-3 along with Covanta's Projections through 2020.

### 3.4 Demolition and Bulky Waste

Demolition waste is generally not accepted at either of the County's transfer stations. However, bulky waste that finds its way into Transfer Station #1 is taken to Savoy's Transfer Station. Bulky waste arriving at Transfer Station #3 is separated and taken by our transfer station operators to their Waste Management site. Both have approved permits for this waste.

### 3.5 Future Capacity of Existing Facilities

#### 3.5.1 Transfer Facilities

The existing capacity of Delaware County Transfer Facilities are sufficient for anticipated future waste generation. Transfer Station #1 and #3, are currently operating at 52% of permitted capacity. Future increases in recycled items will reduce tonnage totals even further. DCPD's 2020 projections for residential and commercial waste totals amount to 446,236 tons prior to incineration. This figure is far less than the 624,000 tons per year of available permitted capacity at Transfer Stations #1 and #3.

#### 3.5.2 Disposal Facilities

Based on a permitted waste acceptance rate of 3,200 tons per day, Rolling Hills Landfill has remaining available permitted capacity that will satisfy current and projected Delaware County MSW generation through 2027.

### 3.6 Comparison of Estimated Future Solid Waste Generation to Future Facility Capacity

A comparison of current facilities to future projected generation reveals that sufficient disposal capacity exists for Delaware County for the life of this Plan. In the year 2012, County residential waste received at Transfer Station #1 and #3, and MSW taken directly to Covanta Delaware Valley, totaled 217,700 tons. Commercial Waste at the above facilities totaled 140,595 tons. The total amount of ash taken to Rolling Hills Landfill from Covanta was 368,951

tons, which also included out-of-county trash processed by Covanta Delaware Valley. Assuming all waste is disposed at County-designated facilities, disposal capacity exceeds the ten year life of this Plan.

## **4.0 DESCRIPTION OF RECYCLING PROGRAMS**

In 2001, Delaware County met Pennsylvania's state goal of 35%. Each year since then, Delaware County has exceeded the state goal.

### **4.1 Benefits of Recycling**

Recycling provides numerous environmental and economic benefits to Delaware County. Recycling preserves capacity at Rolling Hills Landfill by reducing the amount of waste in need of disposal. Consequently, continuing to find additional ways to recycle will extend the life of the landfill.

By reducing the amount of waste in need of disposal, private haulers and municipalities collecting waste will realize savings through fewer trips to the disposal facility. This will result in reduced operational, equipment, maintenance and labor costs, and ultimately lower overall MSW disposal costs.

Operators of recycling programs benefit from the sale of recyclable materials to end users, brokers, and processors. Real economic benefits occur when the recycling programs pay all costs and expenses associated with the recycling of municipal waste. Delaware County has gone beyond typical recyclables found in curbside bins. We have active County programs for recycling items such as: inkjet and toner cartridges; cell phones; Ni-Cad, Lithium, button and rechargeable batteries; eyeglasses; CFLs; thermostats containing mercury; motor oil, antifreeze, lead-acid batteries, tires and car parts; Drop Off centers for glass, aluminum and bimetallic cans, plastics #1 and #2, paper and cardboard; sites that accept packing peanuts and bubble wrap for recycling; leaves and yardwaste; and household hazardous waste collection events which were expanded in 2003 to include TVs and computers. In 2012, our HHW events expanded to include all small appliances except those containing Freon. Most large supermarket and department

stores now accept plastic bags as well as plastic gift cards, ipods, iphones, cassette tapes, DVD's and the list continues to grow.

Additionally, we provide a list of separate sites that accept computers and TVs other than at one of our dedicated events. The list of what can be recycled locally has expanded since our 2002 Plan, both in off-site participating vendors as well as in municipal and county programs.

The County of Delaware has formed an Energy and Environmental Advisory Board (EEAB) which meets regularly to discuss ways to reduce our dependency on oil while harvesting solar and other renewable resources. Most notably, the County has installed 27 photovoltaic panels on top of its Sweeney Building which is located in the Government Complex and 1,196 panels on top of the Government Center Building. The total annual production of over 366,000 kWh hours translates into a savings of 705-830 barrels of oil per year. Additionally, the EEAB has been working with companies to retrofit County facilities with equipment that will reduce energy consumption (example: lights turn off in a room with no movement) as well as operating costs. Information is available on our expanded website as to where you can find additional information on conserving energy, preserving natural resources which includes recycling opportunities, can be found at: [www.co.delaware.pa.us/green](http://www.co.delaware.pa.us/green)

#### 4.2 Compatibility of Recycling with Waste Disposal Methods

Recycling is compatible with utilization at Covanta Delaware Valley, L.P. and the DCSWA's Rolling Hills Landfill. Recycling reduces the volume of waste; i.e., conserves future capacity at our landfill by reducing the amount of waste in need of disposal.

Recycling removes material with low combustibility from MSW entering the EfW facility. This raises the heating value of the waste incinerated which in turn allows our EfW facility to run more efficiently. In addition, materials that produce problematic by-products during incineration are diverted from the facility. Items such as steel are recycled locally.

Delaware County has implemented and expanded numerous recycling programs. Programs include: recycling cardboard, paper, glass, aluminum and bimetallic cans, and plastic bottles at all County buildings; compost farm operation; 40 Igloo Drop-Off Recycling locations which accepts clear, green and brown glass, bimetallic and aluminum cans, as well as plastic bottles and jars (#1 & #2). Recycling is an important component of our HHW contract with an emphasis being placed on recycling as much of the material as possible. Creek clean-ups include recycling the recovered metals; public and private composting and recycling centers; as well as educational programs for school children and community service organizations.

Present as well as future recycling programs will continue to maximize remaining available permitted capacity at the County-owned transfer stations, Covanta Delaware Valley, and at Rolling Hills Landfill.

#### 4.3 Recycling Plan

Delaware County is comprised of forty-nine (49) municipalities. The 1990 Plan Revision identified sixteen (16) Phase I Municipalities that were mandated to implement a residential curbside program as well as mandating their local businesses and institutions to recycle as per Act 101 on/before September 26, 1990. Phase II included fourteen (14) municipalities whose population was greater than 5,000 persons, but less than 10,000 and with a population density greater than 300 persons per square mile according to 1980 U.S. Census Bureau data. These municipalities were to begin curbside recycling on/before September 16, 1991.

The 2000 U.S. Census noted only one municipality, Bethel Township, additionally mandated to recycle. Delaware County's Recycling Coordinator worked with their township manager and attended supervisors' meetings to update the board on what was required of them. There was actually little resistance since residents were already asking for curbside recycling.

This municipality is in full compliance. Since then, many non-mandated municipalities have chosen to recycle.

Exhibit 4-A, prepared by the Delaware County Planning Department, is a map of Delaware County showing all municipalities. This map further indicates all municipalities currently implementing a Curbside Recycling Program. Exhibit 4-B, also prepared by the Delaware County Planning Department shows those Delaware County Municipalities which currently host one or more Drop-Off Recycling Programs.

Since our current Plan was approved in 2002, the State of Pennsylvania has adopted Act 140 which now requires municipalities to collect yardwaste on a monthly basis or to provide for a convenient residential drop-off site. This became a difficult stumbling block for many municipalities, as 568,889 residents (as per 2010 Census) are incorporated into 184.43 square miles.

DCSWA offers all forty-nine municipalities the opportunity to recycle leaves, yardwaste and Christmas Trees. DCSWA operates a nine-acre Compost Farm, which is located on the grounds of Transfer Station #1 at 2300 Concord Road, Chester, PA 19014. In the last three years, approximately 3,500 tons of leaves were brought to this facility annually from October through January. The volume of leaves remains consistent; however, the weight of the leaves varies due to weather conditions, e.g., a dry fall translates into lighter leaves. The leaves are initially placed in windrows where they begin their composting process. In mid-January, the leaves are screened. This helps to aid the curing process. Windrows are turned as they meet the optimum temperature of 140°. In mid-to-late summer, the compost is once again screened. This compost is stockpiled at the Marple Transfer Station as well as at several municipal sites throughout Delaware County and is made available to County residents, free of charge. Our compost continues to gain in popularity among County residents, due to the excellent quality.

Truckloads are delivered each spring to the Gardens at Rose Tree Park and it seems to be a race for the gardeners to get it on their designated (248) plots before the public comes in to help themselves of this “black gold”.

Beginning in 2008, DCSWA opened the farm late December through mid-January for the acceptance of Christmas Trees. At the same time, we began accepting yard waste from permitted municipalities, private haulers and landscapers on the third Wednesday of each month. Additionally, a designated Drop-Off area at the Farm is available to any Delaware County resident on the third Wednesday, January through September wishing to drop-off their yardwaste.

Delaware County maintains an aggressive recycling program with continued use of the Igloo Drop-Off Program for collection of recyclable materials. Igloos are placed in both mandated and non-mandated municipalities for the collection of clear, green, and brown glass, bimetallic and aluminum cans, as well as plastic bottles (#1 & #2). We specifically try to seat Igloos in non-mandated communities to allow those residents the opportunity to recycle locally. Recycling levels vary based on the extent of a municipality's commitment.

#### 4.4 Act 101 Recyclable Materials

Thirty-one (31) Delaware County Municipalities are currently mandated to recycle curbside. Fifteen (15) non-mandated municipalities also offer some type of Curbside Recycling Programs, which brings the total programs to forty-six (46). In all municipalities with Recycling Ordinances, commercial, institutional, industrial, and municipal facilities are required to recycle the following materials: high-grade office paper; corrugated paper; glass; aluminum and bimetallic cans; plastics; leaf and yardwaste along with other materials as required by their particular municipal recycling ordinance.



#### 4.4.1 Glass

Glass bottles and jars are 100% recyclable, reducing the need for raw materials in the production of new bottles and jars.

The quality of the recycled glass products delivered to market and ultimately to the processor is a major concern of the industry. Contaminants feared most by glassmakers include plate glass and ceramics. Recycled glass tonnage has decreased in recent years as evidenced by looking no further than your refrigerator door. Most condiments and juices have been replaced with the much lighter, more durable, plastic bottle. Replacing these items has seen a dramatic decrease in the weight collected in our Igloos as well as in curbside programs. In 2000, 671 tons were collected via our Igloos. In 2009, 354 tons were collected which translates to a 48% reduction in weight. Beginning in 2010, we began mixing/weighing all our glass, plastic, bimetallic and aluminum together. However, while the weight continues to decrease, the volume has increased due to the much lighter plastics replacing glass.

#### 4.4.2 Aluminum

Aluminum products remain the most valuable type of recyclable waste. Aluminum currently being recycled to produce new beverage cans saves both energy costs and the mining of the raw material, bauxite ore. Recycling saves 95% of the energy required to make aluminum cans from virgin ore.

Typically, a recycled can takes only thirty (30) days from curbside pick-up, back to the store shelves. Aluminum is extremely important to any and every recycling program.

Although the quantity of aluminum is less than 1% of the waste stream, the prices paid for aluminum are much higher than other recyclables. It should also be noted, that in 1972, it

took 21.75 12-ounce cans to equal one pound. With major improvements to the industry, it now takes 33.10 12-ounce cans to equal one pound, or a 34% reduction in the weight of each can.

#### 4.4.3 Bimetallic Cans

Recycled steel and bimetallic cans (steel can with aluminum tops and bottoms) generated from food containers are utilized by steel manufacturing companies as scrap steel. All new manufactured items made from steel, must contain at least 25% recycled steel, making recycling an integral part of the steel producing market. Bimetallic cans have become lighter as the 'lids' made of aluminum have become lighter.

#### 4.4.4 Paper and Corrugated

The paper products market is considered a chief supporter of many recycling programs. Products for recycling are: high-grade office paper, newsprint, junk mail, mixed paper, and corrugated (cardboard). Paper is always considered for recycling programs since it is the most abundant material in the waste stream. Newsprint is commonly recycled into paperboard, new newsprint, insulation, and animal bedding.

In the C/I&I waste stream, paper is also the most generated waste product. The prices paid for waste paper products fluctuate, as they follow demand trends.

It should be noted that with the onset of the Internet, many people are reading their newspapers "online". Therefore, most major newspapers are scaling back the size of their papers, while some have merged or simply gone out of business (The Evening Bulletin). The same holds true for cardboard. The once heavy cardboard box needed to cushion TVs has been reduced due to the onset of plasma and flat-panel TVs as well as lighter computer monitors. This trend is expected to increase as ipads are replacing computers, laptops and even TVs, further reducing the amount of cardboard being recycled or needed by the manufacturer.

#### 4.4.5 Plastics

The development and acceptance of plastic beverage bottles and jars in the marketplace has given way to the expansion of plastics. Ten years ago, plastic bottles were mainly used for soda and milk products. Plastics have found their way into the refrigerator, laundry room, basement and garage. While the demand for plastic bottles has increased, source reduction is also an important factor to consider. The 2-liter soda drink bottle weighs 20 grams, or 29% lighter than 25 years ago. Water bottles are extremely thin with the caps half the size they were even a year ago.

The uses for PET recycled bottles continue to grow. Beer manufacturers have begun to replace the heavier glass bottles with plastic bottles.

It takes nineteen 20 oz. PET bottles to yield enough fiber for an extra-large T-shirt or enough to make one square foot of carpet. High Density Polyethylene (HDPE) containers can be recycled into products such as: plastic lumber, trash cans, packing materials, cups, toys, and plastic pipe which has steadily been replacing copper and steel in the home for such things as water and sewer lines.

With the number of single stream programs skyrocketing, municipalities have gone from only accepting three items or just newspaper, glass, bimetallic and aluminum cans, to accepting cardboard, all grades of paper and most grades of plastic. Programs that were beginning to see a decline in their recycling caused by glass bottles and jars being replaced by plastic are beginning to see more stabilized curbside recycling totals.

All major grocery and department stores in Delaware County operate an in-store recycling program for plastic shopping bags.

#### 4.5 Existing Recycling Systems

The following sections describe residential (including curbside and Igloo Drop-Off Centers), as well as commercial and private drop-off centers existing in Delaware County.

#### 4.6 Recyclable Material Generation

##### 4.6.1 Residential

Beginning in 2008, single stream recycling replaced many programs that collected five or more items. 2009 saw the most dramatic increase in the number of municipalities offering Single Stream Recycling to their residents with those collecting only three items, following suit. Currently, forty municipalities offer single stream recycling to their residents. Two additional municipalities offer recycling of all the same commodities; however, they still separate their cardboard and paper. Millbourne Borough which is a small borough containing approximately 12 streets has a designated resident recycler who, with a hand-pulled wagon, walks the streets and picks up recycling, curbside, and brings it back to their community hall where it is then picked up and recycled. Table 4-1 indicates by municipality, what items are collected both curbside and through Drop-Off Programs. Previously identified Table 3-2, lists by municipality the total recycling, total MSW and Recycling Rates for the years 2004 through 2012.

##### 4.6.2 Commercial, Institutional, and Industrial (CI&I)

CI&I recycling pre-dates curbside recycling programs. Good business practices have always included recycling. Scrap dealers collect and accept ferrous and non-ferrous metals from industrial operations throughout the County.

Major CI&I renovation projects always include recycling. Example: Marple-Newtown High School and Widener University have replaced their outdoor bleachers. The old metal bleachers were recycled; the cost associated with this recycling effort helped to offset the installation of new bleachers.

The majority of cardboard recycling exists through a network of grocery, big box stores and commercial balers. Office paper programs are commonplace in the County.

#### 4.7 Existing Delaware County Programs

Delaware County has realized the benefits of recycling as it reduces the amount of solid waste presently entering the DCSWA-owned Rolling Hills Landfill, which in turn extends the life of the landfill. Although not limited to the programs below, some of Delaware County's successful programs include:

##### 4.7.1 Curbside Recycling Systems

In Delaware County there are several methods for curbside recycling. Some programs are administered by a particular municipality's public works' department; other municipalities hire a contractor; some have a combination where their public works' department picks up their fiber with the rest of the program contracted out; and finally, some municipalities allow their residents to use their own contractor, known of as subscription service. This subscription service is generally with residents' trash haulers whom have all now become recyclers as well. The type of service a municipality offers is listed in Table 1-9. A list of items collected in each municipality can be found in Table 4-1 .

##### 4.7.2 Igloo/Drop Off Recycling Systems

Igloos are fiberglass dome-shaped containers standing approximately 5' high with two round holes into which glass, bimetallic, aluminum and plastics #1 and #2 are deposited. In an effort to educate as well as reduce contamination, labels have been affixed to each Igloo advising residents what can be placed inside. These signs include instructions on how to properly prepare items for recycling. Each center contains a sign with the recycling logo and the words Recycling Works (courtesy of PA DEP). Each site has a trash container located in close proximity to the Igloos in an effort to reduce contamination.

In order to service these Igloos, the DCSWA operates a tractor-trailer with a crane and scale to empty and weigh the contents of each Igloos. The scale records the weight for each location. Each site hosts a minimum of 2 or 3 Igloos which are emptied once or twice a week or as needed.

Table 4-2 lists municipalities participating in the Igloo Drop-Off Program as well as specific site addresses.

#### 4.7.3 Private Drop-Off Recycling Systems

Schools, fire companies, churches, scouts, lion's clubs as well as all public and private transfer stations offer recycling to all Delaware County residents. Some sites offer cell phone and toner and laser jet recycling. Most sites can be found in Table 4-1.

A map which indicates municipalities with Drop Off facilities whether public or private can be found in Exhibit 4-B.

#### 4.7.4 Commercial Recycling Systems

Most major companies in Delaware County include recycling as part of their business practices. Waste reduction and recycling programs are environmentally responsible and generally are cost-effective methods for reducing the wastes generated by businesses, organizations and private industry.

All major food chains in Delaware County recycle cardboard, paper, plastic, and food waste in large quantities; regardless of whether they are located in a mandated community. Major food chains offer plastic shopping bag recycling. All major department stores recycle cardboard and paper in large quantities as well as having a drop-off location at most entrances for plastic shopping bag recycling.

In an attempt to reiterate the recycling message and obtain totals that might be missed, DCSWA sends out hundreds of letters annually to major businesses as well as recyclers, both in

and outside of the County. Municipal officials are encouraged to use their tax rolls to target their businesses, sending out yearly reminders along with the need to submit their annual recycling totals for inclusion in their municipality's Annual Recycling Report.

#### 4.7.5 Leaf and Yard Waste Collection and Composting

ACT 101 requires removing leaves and yard waste from MSW. Even so, Delaware County recognized the merits of composting as an alternative method of disposal of leaf and yard waste. Homeowners are encouraged through municipal newsletters, calendars, street postings, websites and press releases of the dates that leaves will be collected curbside in their community. Most municipalities collect leaves using a vacuum truck, which helps compact leaves, minimizing the number of trips to the DCSWA Compost Farm. Bulk deliveries of municipal leaf waste are accepted at Delaware County's Compost Farm. Trucks are weighed by the onsite Weighmaster. Leaves are then deposited directly at the Compost Farm. Permitted commercial accounts may also bring leaves to the Compost Farm for a reduced tipping fee. Municipalities where leaf collection is not possible (some non-mandated communities) as well as residents with large acreage (Bethel, Concord & Thornbury to name three) who find it more convenient to load their personal pick-up truck and bring it directly to our farm rather than placing it in bags at their curb for municipal pick-up may bring their leaf and yardwaste to our site on the third Wednesday of each month, January through September from 7 a.m. to 3 p.m. Additionally, HAK Clearing & Recycling and Mulch Works, both in Aston, accepts yardwaste Monday through Friday and seasonally on Saturdays. Residents wishing to dispose of yardwaste at times when our farm is not opened are encouraged to use one of the two companies mentioned above. Composting seminars are published in local papers and held at Penn State University's Lima Campus; PRC in Edgmont Township; and the Tyler Arboretum in Middletown. Residents wishing to learn more

are encouraged to attend those seminars/workshops. As a result, there seems to exist ample sites for our residents to conveniently drop off their yardwaste and composting seminars/classes.

#### 4.7.6 DCSWA Leaf Compost Farm

DCSWA's Compost Farm is located on approximately nine (9) acres within the grounds of the Chester Transfer Station. A history of the amount of leaves brought to this facility by municipality can be found in Table 4-3. The Compost Farm's operation is subcontracted. The Authority is in the first year of a three (3) year contract with County Conservation LLC of Sewell, NJ.

Leaves and yardwaste are brought to the farm by municipalities, contracted haulers, or private commercial landscapers. Until the fall of 2008, the volume of leaves remained consistent. The totals, however, fluctuate from year to year, mainly due to weather conditions. A rainy fall translates into heavier leaf tonnage. Beginning in September 2009, Marple and Haverford Township opened a joint compost farm located in Haverford Township which resulted in a drastic drop to our totals. Nether Providence and Swarthmore operate a joint compost farm at Swarthmore College, while Newtown and Radnor operate their own farms. Additionally, some municipalities have their own chippers and while they pick up yardwaste, do not bring it to our site. Instead, they chip it and use it in their parks and/or make it available to their own residents. Some municipalities allow their smaller neighboring municipalities to use their chippers, so they can use these woodchips in their parks and around their municipal buildings; e.g., Eddystone uses Ridley Township's chipper.

Once processed, DCSWA's compost is stockpiled at the Marple Transfer Station as well as at numerous locations throughout the County for residential use. Over the years, the quality has improved to where residents wait in line each spring and fall in an effort to fill their cans, trunks, and even plastic bags with this rich soil additive.



Signs have been placed at the transfer station advising residents of its uses. Besides a soil additive, this can also be used as top dressing on flower and vegetable beds. The advantage of compost over mulch as top-dressing, is that it will decompose, making next year's soil much easier to work as well as placing valuable nutrients back into the soil.

Delaware County's Parks' Department tills 248 garden plots in Rose Tree Park each year for residential food and flower gardens. Early each spring, between 150-200 tons of this rich compost is delivered to the site for use by our gardeners.

Orchards, farms and private yardwaste facilities in Delaware County also accept leaves, shrubs, and tree trimmings from municipalities, landscapers, businesses and even residents which are used as ground cover for fragile plants over the winter months. Some use the wood to make wood chips and shredded mulch. Leaves and yardwaste taken to these farms as well as to mushroom farmers located in Chester County cannot always be quantified and thus are not included in any totals.

#### 4.7.7 Household Hazardous Waste and E-Waste

Before any of the surrounding counties began addressing hazardous waste, Delaware County saw there was a need to develop a Household Hazardous Waste (HHW) Program. Beginning in 1993, Delaware County hosted three HHW Collection Events. In 1998, County elected officials from Bucks, Chester, Delaware, and Montgomery Counties along with the City of Philadelphia, signed HHW Inter-Governmental Agreements (IGA). The agreement provides a framework for each county's participation. In 2012, we completed our fifteenth year. All five counties have once again signed a four-year agreement which runs from 2013-2016. See Exhibit 4-C for Delaware County's most recently signed agreement.

This IGA allows residents from any of the five (5) counties to participate in any of the above county's HHW Events. This gives Delaware County residents more than twenty-five (25)

opportunities, annually, to dispose of HHW and E-Waste in a safe and environmentally sound manner.

Initially, all the counties worked with a public relations firm to design logos specific to the region. Some counties still use some or all of the specifically designed characters in their flyers, website and handouts. While all brochures and flyers are reproduced in each particular county, all the information is shared.

One RFP is issued and awarded; however, individual county specific contracts are signed. This makes it possible for each county to pay the vendor directly as well as submit individual county grants to PA DEP. The enormous benefit to the counties is that with being able to guarantee more than twenty-five annual events, each county takes advantage of what amounts to of as a 'volume discount'. As per the requirements in the RFP, the current vendor, Clean Harbors Environmental Services, Inc., must first consider recycling for the items collected. County Coordinators and our Regional PA DEP, EPS (Ann Ryan is Delaware County's DEP, EPS) hold monthly Regional HHW Roundtables to discuss current collection events, safety issues, staffing, publicity, and educational opportunities. We also share our successes and cost affective measures we have undertaken. A few examples that come to mind: Instead of paying county employees overtime to act as survey-takers, our County elicited the help of our Community Service Department which saved the county/PADEP that significant expense. All counties now use their Community Service Workers. One county found a local lead acid battery recycler who arrives at the close of each event and takes/recycles the batteries at no charge. A County box truck is placed on-site to recoup/recycle all clean cardboard. As a result of sharing this information, the five counties have instituted these significant cost savings measures.

With the exception of the City of Philadelphia, all County HHW Coordinators are also their county's recycling coordinators. Consequently, we try to include recycling topics to the end of each meeting.

Ten years ago only HHW was collected. In 2003, computer related items and portable TVs were added to three of Delaware County's four events. Then in 2012, electronics expanded to include all small appliances except those containing Freon. Additionally, stand alone E-Waste Events have been held which are not included in the totals below. It should be noted that as a result of new legislation, in 2012 the five-counties renegotiated that portion of our HHW contract to where there was and currently is no charge for the e-waste collected.

A breakdown by item for the last two years can be found in Table 4-4. A quick recap for the last two years is as follows.

Year	HHW	E-Waste	Total Collected	Number of Participants
2011	194,553 lbs.	229,976 lbs.	424,529 lbs.	5,332
2012	163,725 lbs.	236,663 lbs.	400,388 lbs.	5,308

HHW/E-Waste flyers are provided to all libraries and county buildings in Delaware County as well as to schools and service groups. HHW Flyers are e-mailed to each municipality, state representative and state legislator. They are requested to print as needed. Municipal officials are also encouraged to list our dates/locations in their newsletters, calendars, on their cable channel and websites. In order to make Internet updating a snap, municipalities have been encouraged to provide a link to Delaware County's HHW website which eliminates the need to have someone in their municipality input this information annually. There are several advantages to linking versus inputting the information; once the County updates its website all linking municipalities have the correct information; there are not expired dates/locations and miscommunication floating out there as to when the next event will take place.

Additionally, the County website provides a link to other counties' events if ours is not convenient. See [www.co.delaware.pa.us/recycle/hhw.html](http://www.co.delaware.pa.us/recycle/hhw.html). Information as to what will and will not be accepted may be found on the County's website including step-by-step instructions on how to solidify latex paint. Links have been included which provides the Internet visitor with door-to-door driving directions for each event in the region. *Delaware County TODAY/Almanac* publishes this information on their recycling pages. Local environmental groups also include this information in their newsletters and brochures. Press releases are sent prior to each event. Reminders are sent to surrounding municipalities prior to each event so they can announce our upcoming event at all municipal meetings. This also alerts the local Police and Fire Marshall. Articles are always published either the week of an event or the week prior in at least one daily paper, *The Daily Times*; and several weekly papers, *The County Press*; *News of Delaware County*; and *Town Talk*.

Aside from our HHW/E-Waste Program, Best Buy currently accepts e-waste for recycling; Staples and Goodwill Industries also accepts computers. Currently two municipalities, Springfield and Marple, have a drop off box at their highway yards for e-waste. Since monitors and TVs can no longer be placed out with curbside trash, many municipalities are hosting single one-day E-Waste Events. In 2013 alone, thirty-four (34) additional E-Waste Collection Events have taken place. Time will tell if this trend continues.

#### 4.7.8 Motor Oil, Antifreeze, Battery and Tire Recycling Centers

DCSWA has identified local service stations that participate in our County and state's Motor Oil, Antifreeze, Battery and Tire Recycling Program. A list identifying those recyclers can be found on the County's website at [www.co.delaware.pa.us/recycle/auto.html](http://www.co.delaware.pa.us/recycle/auto.html). This list can also be found in the *Delaware County Today/Almanac* or by calling the DCSWA or the PA DEP Recycling Hotline: 1-800-346-4242 as well as in Table 1-14, enclosed.

#### 4.7.9 Public Education Recycling Programs

A successful recycling program involves changing the habits of people through the use of an effective public education program. Since each municipality chooses which items they recycle, there could theoretically be forty-nine (49) different recycling programs in Delaware County. However, most municipalities have switched to single stream recycling which helps to simplify the educational process.

An educational program must accomplish three basic goals, which are as follows:

1. The program must clearly show residents in the community how they can benefit from a recycling program. These benefits typically center on economic gain and the environmental impact.
2. The program must clearly illustrate the procedures necessary to participate. Clear instructions translate to higher participation rates.
3. The program also must educate the public that recycling is the law, not just for the homeowner but for businesses as well.

Emphasis should be placed on the program's procedures and benefits as well as its progress.

To be affective, the educational process must continue throughout the life of the program to insure increasing participation.

The following methods are recommended:

1. Recycling container distribution should include a list of the items to be recycled; instructions on how to properly prepare items; the collection schedule; and a list of other recycling programs: e.g., HHW/E-Waste Collection Schedule; Motor Oil Recycling Sites; Drop Off Sites for items not accepted in that municipality's Curbside Program.
2. Verification with the contracted recycler or MRF to insure proper information is included in municipal handouts, newsletters, calendars, website and a municipality's cable channel.
3. Ensure that all businesses are informed of the recycling requirements; know their municipal contact; and are submitting annual reports.
4. A school educational program will educate not only students but their parents as well. See also item #3.
5. Local publicity proves to be an affective tool. Typically, residents read local papers more thoroughly. Periodic feedback to the community with a progress report helps keep residents enthusiastic about recycling.
6. Direct communication with local organizations such as realtors, service clubs, institutions, schools, and business and professional organizations. Information

should be distributed as to what items must be recycled. Instructions should include annual reporting requirements. Accurate recordkeeping should always be stressed.

7. Notices distributed by curbside recycling companies gain interest as residents are more likely to read this information.
8. Recycling Center signs, which indicate what and how to recycle.
9. Delaware County's Recycling Coordinator is available to help any municipality, business, service club or resident's recycling efforts.
10. Attending environmental events, maintaining booths, etc. where information can be distributed to a large number of interested individuals.
11. Give-aways with the recycling message creates the opportunity to ensure recycling will be discussed at a later date; e.g., pencils made from U.S. Currency will surely get kids talking about recycling in the classroom and at home. Once distributed, the student is asked what material they think is used to create this pencil. When told, you can just see their thought process working; some trying to figure out how to 'get the money out'. These pencils are specifically used because it grabs the students' attention. It is then suggested that what can be recycled is only limited by our imagination and we're counting on them to come up with new ideas and ways to recycle currently untapped items.
12. Look for new ways to reduce, reuse, and recycle.

Even though Delaware County reached a 56% diversion rate in 2012, we continue our outreach efforts in an attempt to increase this rate. The largest stumbling block, however, appears to be in recordkeeping.

PA DEP offers §904 Performance Grants to municipalities for their recycling efforts. This grant requires municipalities to educate residents and in particular businesses at least twice annually. One must be a targeted mailing. Most municipalities use their annual report to remind businesses of their municipal ordinance which requires them to recycle as well as to report the prior year's total. Businesses have responded favorably to this 'reminder'.

As mentioned earlier, the largest stumbling block appears to be in recordkeeping. Corporate offices of big box and chain stores typically, contract for all their stores' recycling. When a local manager is asked for totals, quite often the response is, they put the recycling out back and twice a week a truck comes by and picks it up. They know nothing more than that. Consequently, the County Recycling Coordinator also attempts to 'go after' those chains,

constantly updating and expanding this list in order to supply municipalities with numbers that are hard to track down. (For example, a local K-Mart does not track its numbers; rather, their Main Office in MN contracts the cardboard collection operation to a company in Tampa, Florida.) Once the County Recycling Coordinator obtains these numbers, they are copied and forwarded to the respective municipalities to be verified against any total(s) they may have received on their own prior to the Annual Recycling Report deadline. This is a labor intensive, time-consuming portion of the County's Recycling Coordinator's day from November through May.

In an effort to capture all recycling totals, municipalities are encouraged to forward the Annual Recycling Report, prepared by PA DEP, to all their businesses. Delaware County's Recycling Coordinator sends requests to area recyclers; MRFs; and chain stores such as: CVS, 7Eleven; food and department chains, automotive recyclers on the county list, etc. The County Coordinator has held workshops, encouraging municipalities to forward to their businesses the PA DEP approved form to obtain totals as it doesn't limit what information is being requested. As new municipal coordinators come on-board, they are paid a personal visit and supplied with this information.

In years past, municipalities only requested §904 Grant approved items. By using the PA DEP Form for annual reporting, it has been very effective in obtaining additional totals. As part of the workshop municipal people see that by gathering the information early in the year and in the required Annual Report format, §904 Performance Grants are much easier to prepare. As a result, this "team effort" has also contributed to Delaware County's increase in verifiable recycling rates.

#### 4.7.10 Municipal Recycling Initiatives

Municipalities have become conscious of what their citizens want. Darby Township, realizing the dependence on Holiday Internet Sales, holds a specific Holiday Curbside Collection Event for just cardboard. Chester Heights hosts a spring recycling event, annually, where e-waste, clothing, motor oil, and mixed metals are collected along with a Shred-It Truck for their residents. The City of Chester offers an E-Waste/Shred It Event where after shredding their documents, residents can visit tables set-up to educate their residents on various recycling and green opportunities. Nether Providence, Marple, Haverford and Upper Chichester offer a single stream recycling bin at a designated site within their townships. Marple and Springfield have Drop-Off bins for E-Waste at their Highway Department Yards. All but one municipality has some sort of Drop-Off Recycling within their borders. Most municipalities either: bring their Christmas Trees to the County's Compost Farm for recycling; chip them up themselves for use in their parks; or have found a closer outlet in which to recycle these trees.

All county parks as well as many municipal parks have recycling Igloos for glass, bimetallic and aluminum cans along with plastics #1 and #2..

#### 4.8 Waste Reduction

Source reduction is gaining more attention as an important solid waste management option. The term most frequently used, "waste prevention," is defined by the EPA as "any change in the design, manufacturing, purchase, or use of materials or products (including packaging) to reduce the amount of toxicity before they become MSW. Prevention also refers to the reuse of products or material." Source reduction affects the waste stream before the point of generation. Source reduction is a solid business practice that most manufacturers have embraced.

Examples can be found in replacing glass and steel containers with plastics and aluminum; fewer newspapers are sold, replaced instead by the Internet and twenty-four hour television news



programs. The weight of bimetallic and aluminum cans along with plastic bottles have been drastically reduced. Department store catalogs have almost completely disappeared having been replaced by Internet ads arriving in personal e-mails. Cardboard boxes have been replaced in part at Wal-Mart Stores by collapsible, reusable, plastic-coated boxes. Boxes are then returned to their distribution center and reused rather than recycled. This type of box is expected to become widely used in the future. Products have also been redesigned to reduce weight; e.g., Wal-Mart has limited the amount of shelf space for manufactures, causing manufacturers of items such as laundry soap to develop and offer condensed products whereby a ½ cup of the *new and improved* soap takes the place of the former 1 cup size which reduces the need for large sized containers. Lighter automobiles translates to cars becoming more fuel efficient. Large ‘tube’ and projection TVs have been replaced with the lighter plasma, HD and LCD TVs. VCR and DVD recorders are smaller or even being replaced by online rentals, eliminating even the need of those devices. The newest item which seems to be catching on is compostible packaging for items such as chips and cereal liners.

Similar to lengthening product life, reuse of products and packaging, delays the time when the items must finally be discarded. Donating reusable items to charities also delays the time prior to entering the municipal waste stream.

Delaware County is host to many Salvation Army, St. Vincent DePaul, Goodwill Industries, clothing, automotive, e-waste and household bin Drop-Off locations. Local libraries often host book collection drives where books, VHS tapes and DVDs are resold at a minimal cost, benefiting the library, reader, viewer, and the municipal waste stream. Shred-It Events, not something considered important ten years ago, are now extremely popular and allows residents the opportunity to recycle rather than trash or burn their most personal printed information. Computer and TV recycling began in 2002 and quickly became the most recycled items at our

HHW events. In 2012, we once again expanded what electronic recycling would be accepted by not limiting the size of the TVs and began marketing it to include all small appliances minus those containing Freon. As a result, this has increased the volume collected at our one-day events, dramatically.

Delaware County's Criminal Investigation Department (CID) has partnered with local police departments and for the past two years has offered Drug Take Back Events each spring and fall. This program has been well-received and we are now working on installing permanent Drop Off Boxes in designated Police Stations:

#### 4.9 Recyclable Materials Market Assessment

Recyclable materials all have their own opportunities and problems. With the rapid expanse of the Internet, new opportunities exist that weren't there even three years ago. End-users with a specific need in years past spent days, even weeks, looking for a particular item: e.g. 1970 Chevy Nova windshield. After fruitless weeks of searching for a replacement the old-fashioned way, this particular item (according to *Waste Age*) was located via the Internet in about 20 minutes in a junkyard in Arizona.

The barriers to matching buyers and sellers shrink with the Internet. Recycling via Internet methods can only be expected to increase. Companies interested in buying and selling recyclables now turn to the Internet to shop price and to find end-users.

The Internet has changed the way we do business. Currently, companies like Georgia-Pacific Corporation, International Paper Company, along with the Aluminum Association, National Recycling Coalition, and the Institute of Scrap Recycling Industries have websites, just to name a few.

The Internet has opened up new markets for recyclables giving MRF's new outlets. Instead of brokers sitting on items until local markets rebound, the recycler can take advantage of markets that were previously foreign to them.

#### 4.10 EPA WARM Model for Delaware County

Exhibit 4-D uses 2012 data to provide estimates for the environmental benefits of recycling when compared to disposal. The estimates are based on the most recent conversion factors available through the WARM model developed by the U.S. Environmental Protection Agency. The report classifies reductions in GHG and Energy in positive numerical values as opposed to the EPA which classifies reductions as negative values.

#### 4.11 Recycling Programs' Summary

Environmentally conscientious people live and work in Delaware County. Prior to Act 101, Delaware County residents recycled. As discussed above, information is published in a variety of mediums for our residents. With most people being computer literate, recycling information on all of the topics addressed in this chapter has been included in Delaware County's Recycling Webpage: [www.co.delaware.pa.us/recycle](http://www.co.delaware.pa.us/recycle).

Municipalities not mandated to recycle curbside are doing so because they see it as the right thing to do and their residents demand it.

Single Stream programs have taken over increasing what residents can recycle in curbside programs. It's even affected Drop Off Programs. Instead of County Igloos for specific items, residents can place most recyclables (minus fiber) in the Igloos. Municipalities that host their own drop off center now include all single stream items.

Most schools have collection containers for paper and ink cartridges. Libraries and some municipal buildings also offer cell phone recycling.

When our last Plan was written, we only accepted hazardous waste at our one-day HHW events. In 2002 we began accepting computers and TVs and in 2012 began to accept all small appliances at three of our four one-day events. Additionally, the County, municipalities and non-profits have hosted Special E-Waste and Shred-It Collection Events.

The next ten years should prove interesting as it relates to recycling. Ways of doing business are changing. No longer do people rely on newspapers to bring the world to them. Twenty-four hour television news' programs and Internet connections provide this information as quickly as it happens. Plastics and aluminum are replacing glass. In addition, plastics, aluminum, and metals are all being made lighter and stronger for not only food related items but are being used to build everything from homes, cars, furniture, decking, etc. Used tires are being incorporated in the manufacturing of macadam for driveways, roadways, parking bumpers, and roofing shingles. The test of time will determine how successful these products will be and whether in ten years' time, this will become an essential manufacturing ingredient.

Source reduction translates to good business practice. Computers have dramatically changed in the last ten years and have gone from weighing 20-30 pounds to less than 5 pounds with flat screens replacing the heavy monitors, and laptops, BlackBerries, iPads, and iPhones replacing even the tabletop computer. Even table top radios, alarms and large stereos have been replaced by ipods and iphones that not only wake you but play your favorite music or movie. They can even be used as a calculator, take your picture, act as a GPS among other things, eliminating the need for so many gadgets. Electronic readers are quickly replacing hard and soft bound books, storing hundreds of books on one thin device. Some area school districts have replaced their textbook with ipads. Each student receives an ipad in the beginning of the school year. All their textbooks, reading materials and assignments are available online which negates the need of purchasing, carrying and disposing of the heavy textbooks.

Cell phones have gone from pounds to ounces and as mentioned above, do so much more than just make and receive calls. Delaware County's Cell Phone Recycling Program has grown from a 90-day Pilot Program in our last Plan into regular collection sites in all libraries and most municipal buildings. Our 2002 Plan was exploring ways to recycle computers; last year we collected over 261,000 pounds of electronic waste for recycling. In Delaware County, we are always looking for new items and ways to recycle and look forward to other recycling and source reduction initiatives.

Our residents have embraced recycling and can see the environmental benefits; however, the greatest recycling obstacle seems to be the documentation of commercial totals. Delaware County recycles much more than our totals indicate. This is most obvious when you ask a retailer who advertises on TV that they recycle your old appliance, mattress, computer or cell phones, yet when they supply their recycling reports, those items are not included. Often our contacts move to different positions within even their own company and it requires county coordinators to 'start over'. Instead of the Olympic *passing of the torch*, large quantity generators seem happy to just *drop the ball* and sprint on by.

This County's Recycling Department has made an effort to correlate the Annual Recycling Report with the §904 Performance Grant filed later in the year. As a result, this has helped municipalities obtain previously untapped numbers. Some municipalities simply could not justify the time or resources needed to go after these additional annual report totals. However, with the development of the PA DEP Annual Recycling Report which can be used for both the annual report as well as the §904 Grant, municipalities need only send/receive one report for both. As a result, we are able to gather additional numbers. Municipalities view the §904 Grant as a way to augment their expenses related to operating their curbside and drop off facilities and have made a concerted effort to go after these previously unharvested commercial totals.

The County Recycling Coordinator educates the responsible municipal individuals on effective ways to create data bases using their tax rolls; with personalized 'form letters'; and follow-up with area recyclers and local businesses. Grocery stores and local retailers trucking their cardboard out-of-state, are now being held accountable. State and federal offices located in Delaware County are approached for their recycling totals. All area recyclers have been contacted and educated on PA DEP regulations. As a result, these efforts have helped recyclers understand why municipalities are so insistent on obtaining complete and accurate totals.

PA DEP forms have been supplied to area recyclers in an effort to streamline their process and 'get them onboard'.

In an attempt to capture all recycling totals, a team effort approach has been organized in Delaware County to share information.

## **5.0 SELECTION AND JUSTIFICATION OF MUNICIPAL WASTE MANAGEMENT PROGRAM**

Act 101 §502 requires an analysis of a county's Municipal Waste Management Program, including facility selection and cost of disposal.

Delaware County is in the unique position that, through the DCSWA, it owns two transfer stations for the acceptance of all Delaware County residential MSW as well as a landfill. Each transfer station also accepts Delaware County commercial solid waste, excluding C & D, sewage sludge, and infectious wastes. A contract with Covanta Delaware Valley, EfW facility, provides for the disposal of MSW transferred from the DCSWA-owned transfer stations through 2017 and beyond. Ash and residue are transported to DCSWA-owned Rolling Hills Landfill, where landfill capacity assurances exist through 2028.

Currently, Delaware County charges a Waste Management and Recycling Fee (WM&RF) of \$33.00 per ton tipping fee for the processing of residential MSW at Transfer Station #1 and #3 or at Covanta Delaware Valley in the City of Chester. This fee includes transporting this waste to our EfW facility and then transferring and disposing of the ash residue at our County-owned landfill, Rolling Hills.

The 2013 WM&RF for commercial, institutional, and industrial (C/I&I) waste at Transfer Stations #1 and #3 is \$66.00 per ton.

The facilities previously funded through Delaware County property taxes are now funded entirely by user fees. DCSWA manages and maintains the above sites.

### **5.1 Residential MSW**

Residential MSW is brought to either DCSWA Transfer Station #1 or Transfer Station #3. In an effort to reduce truck traffic as well as reduce air emissions, the City of Chester

transports their residential MSW directly to Covanta Delaware Valley, which is located in that municipality, for processing.

MSW is transported to these facilities via municipal public employees; haulers contracted by the municipality; or through private residential subscription service. The location of each transfer station allows for the quick turnaround time for haulers. Waste received at either Transfer Station # 1 or #3 is then transported via tractor trailer to Covanta Delaware Valley. This process is elaborated upon in Section 2.2.1.

## 5.2 Commercial Solid Waste

Delaware County commercial solid waste is accepted at either of DCSWA's Transfer Stations or Covanta Delaware Valley, which maintains an agreement with DCSWA to accept all Delaware County waste prior to accepting another county's or states' waste. Commercial waste can also be taken to private transfer stations and landfills. As indicated in Table 3-3, Covanta is operating well under permitted capacity.

## 5.3 Operation of Transfer Facilities and Transportation

The internal operation of the DCSWA-owned transfer stations, as well as the transportation to the EfW facility, is subcontracted to Waste Management of PA, Inc. On January 1, 2012, a *FIRST AMENDMENT TO AMENDED AND RESTATED TRANSFER STATION OPERATIONS AND DISPOSAL AGREEMENT* was executed extending the contract until December 31, 2015. This Modification Agreement can be found as Appendix D.

DCSWA-owned transfer stations' locations allow for the efficient handling of MSW; least amount of down time for haulers; flexibility to adapt to potential changes in collection technology; and flexibility in the hours of operation and the ability, when necessary, to accommodate Saturday deliveries.



The cost associated with the operation of the transfer stations are derived from tipping fees from permitted vehicles.

#### 5.4 Covanta, Delaware Valley - EfW Facility

Covanta, Delaware Valley is located at 10 Highland Avenue, Chester PA, 19013. Trucks arrive with waste via 2<sup>nd</sup> and Harwick Streets, Chester. PA, 19013. Waste collected at either Transfer Station #1 or Transfer Station #3 is transferred to Covanta, EfW facility, via a contract with Waste Management. DCSWA also contracts with Covanta for the disposal of ash and bulk generated at their facility in Delaware County. All ash generated at this facility becomes the property of the DCSWA once it is transported and disposed of at the Rolling Hills Landfill. Revenue derived from our involvement with this EfW facility is used to fund Delaware County waste and recycling operations and programs administered by DCSWA.

#### 5.5 Rolling Hills Landfill

The DCSWA owns/operates Rolling Hills Landfill for the County of Delaware. Rolling Hills currently accepts ash and bulk waste from Delaware County; ash and trash from Montgomery and Berks Counties; trash and C&D from New Jersey; and trash from Chester County. Tipping fees for trash currently are \$63.25 per ton, while ash runs between \$20-\$27 per ton. Landfill capacity exists for the next 16 years; see Section 2.2.2. The cost associated with the operation of this facility is included in tipping fees currently charged to haulers entering DCSWA facilities.

#### 5.6 Compost Farm

The DCSWA Compost Farm is a nine acre farm located on the thirty acre Transfer Station #1 property, located in Chester Township. County weighmasters weigh trucks in and out; however, the daily operation of this farm is subcontracted. As of January 2010, municipalities or their designated contractors are charged \$33.00 per ton while permitted

landscapers and independent haulers are charged \$42.00 per ton for leaf and yardwaste. Delaware County residents are permitted to bring yardwaste to a designated area at the Farm on the third Wednesday of each month from January through September. (The large volume of truck traffic prohibits us from allowing cars on our site October through December.) Residents are not charged to dispose of yardwaste when brought directly to our site, nor are they charged to obtain this ‘black gold’ (compost). Once cured, our compost crop is stockpiled at Transfer Station #3 and at various sites throughout the County for residents. Information regarding the Compost Farm along with hours residents can drop off yardwaste as well as pick up compost can be found on Delaware County’s Recycling Webpage: [www.co.delaware.pa.us/recycle](http://www.co.delaware.pa.us/recycle) as well as in Section 4.13.6 of this Plan.

#### 5.7 Municipal Ordinances Requiring Flow Control

All forty-nine (49) municipalities in Delaware passed an ordinance which regulates the disposal of all municipal solid waste<sup>1</sup> from the municipality; requiring disposal at approved sites; providing a permit<sup>2</sup> for solid waste collectors<sup>3</sup>; providing for regulations and penalties; and entering into a joint cooperation agreement with the County of Delaware. At the time of adoption of these ordinances; a sample of which can be found in Appendix E; it was determined that:

<sup>1</sup> Municipal Solid Waste – Any garbage, refuse, industrial, lunchroom or office waste, and other material including solid or semi-solid material generated in residential, municipal, commercial, or institutional establishments and from community activities, and other solid waste which is within the definition of ‘municipal solid waste’ as set forth in the act and which the County, Authority or Contractor by its ordinance or regulations is willing to accept at the plant, but excluding: (i) any liquid waste or sludge, (ii) all wastes which are defined by existing or future Federal or State Law or Regulations as hazardous waste or industrial residual waste, (iii) any waste which may be marketable and which is intentionally segregated for purposes of recycling and (iv) materials specifically excluded under applicable County Ordinances.

<sup>2</sup> Permit – A permit # shall be issued for each collection vehicle for billing purposes for disposal at DCSWA facilities.

<sup>3</sup> Collector – Any person collecting or transporting municipal solid waste for owners or occupants of a property in the Municipality, including the Municipality itself if it undertakes the collection of Municipal Solid Waste directly, and any business or institution within the Municipality which generates Municipal Solid Waste and uses its own employees and equipment for the collection and transportation of the waste.

Delaware County's SWMP of 1985 include a county-wide resource recovery plant since it would be the most environmentally sound and cost-effective method of disposing of municipal solid waste within the County.

To obtain the environmental, economic, and public benefits from the EfW facility, it was necessary that commitments be obtained from municipalities with the County as to the use of the EfW facility for the disposal of MSW.

Each ordinance indicates that municipalities have full authority under applicable laws to provide for the management of MSW within its boundaries.

Each Municipal Ordinance indicated that all collectors shall deliver and dispose of all MSW collected within the municipality to the solid waste facility designated by the County subject to such reasonable regulations for the operation thereof as may be established by the County and/or Contractor. Delivery and disposal at any other place shall be a violation of this Ordinance and cause for revocation of the collector's permit, except in special circumstances approved in advance by the municipality, the County and/or Contractor. All collectors shall comply with their operation, all applicable laws, ordinances, and regulations pertaining to the collection and transportation of MSW.

Each Ordinance also provides for Penalties and states that: "...any person who shall violate any provision of this Ordinance, shall upon conviction thereof, in a summary proceeding before a District Justice be sentenced to pay a fine. In default of payment, shall be committed to the County Jail for a period not exceeding thirty (30) days; and each day's continuance of a violation of this Ordinance as well as each truckload of illegally delivered trash shall constitute a separate offense."

## 5.8 Suspension of Flow Control

As a result of several lawsuits filed in the U.S. Supreme Court and with direction from PA DEP on January 21, 1997, Delaware County adopted Ordinance #97-1, *Suspension of Flow Control*. The ordinance's primary purpose: "suspension of mandated flow control of acceptable waste to county designated facilities." Ordinance #97-1 amended Ordinance #90-4 which allowed specific designated public facilities as the only designated sites in the County Plan.

## **6.0 LOCATION AND IDENTIFICATION OF AVAILABLE FACILITIES**

A map of all municipalities in Delaware was provided for use in this Plan by the Delaware County Planning Department and can be found as Exhibit 2-A. This exhibit indicates County owned transfer stations; our EfW facility; as well as private Transfer Stations. Physical addresses; contact information; material accepted along with PA DEP permit numbers for each site can be found in Table 2-1.

Rolling Hills Landfill's Map as well as the total designated areas for Rolling Hills Landfill can be found in Exhibit 2-D.

## **7.0 IMPLEMENTING ENTITY IDENTIFICATION**

Delaware County Council is responsible for implementing this Municipal Waste Management Plan, given that authority by virtue of Pennsylvania Act 101 as well as the Delaware County Home Rule Charter. The County requested that the DCSWA revise this Plan. Upon completion, the Plan was submitted to Delaware County Council for approval. Council's approval can be seen in Exhibit 7-A.

The DCSWA requested and received assistance in completing this document from a number of entities. First a SWAC was formed with public meetings and input from the public and private sector individuals. Participants are identified on page IV of this Plan. Additionally, Delaware County Planning Department; PA DEP; private medical facilities; waste water treatment facilities; private sector solid waste companies; as well as private recycling companies helped in compiling the current Plan.

By way of the above, the DCSWA has secured adequate processing/disposal capacity for Delaware County-generated MSW for a period of ten years.

By owning transfer stations and a landfill as well as maintaining contracts for transporting MSW and the EfW facility, the DCSWA has reduced the overall solid waste management system costs. Additional benefits include but are not limited to: providing a positive environmental impact by reducing waste in need of disposal and providing in-County disposal opportunities which further reduces truck and emission factors.

## **8.0 PUBLIC FUNCTION**

The County of Delaware has determined that provisions of the following municipal waste processing and disposal facilities is a public function:

- ◆ Transfer Station #1 and #3
- ◆ Covanta Delaware Valley ~ EfW Facility
- ◆ Rolling Hills Landfill

The County of Delaware, via the DCSWA, assumes the responsibility for Transfer Station #1 and #3. Both are owned by Delaware County and operated by DCSWA.

Covanta Delaware Valley, via a Service Agreement with the DCSWA, will operate the EfW facility for Delaware County MSW until 2017, at a minimum. At that time a contract extension can be negotiated or the County may purchase the facility.

Delaware County has further determined that provisions of the Rolling Hills Landfill as an MSW disposal facility for waste, ash residue, and by-pass waste is a public function. The DCSWA assumes the responsibility for the ownership and operation of Rolling Hills Landfill.

The County of Delaware has determined that the County's recycling programs, recordkeeping, and education is a public function. DCSWA assumes the responsibility of administering these programs and projects.

DCSWA via tipping fees provides revenue to defray capital and operating costs associated with Transfer Station #1 and #3, Rolling Hills Landfill, Covanta Delaware Valley EfW Facility, and Delaware County's Recycling Department.

## 9.0 ORDINANCES AND RESOLUTIONS

In order to provide at least ten (10) years of waste disposal capacity, the County of Delaware has adopted a series of ordinances and service agreements. A list of existing implementing documents adopted and/or executed to implement the 2013 Solid Waste Management Plan, Substantial Revision can be found listed in the Exhibits and Appendices.

### 9.1 Documents

Exhibit 7-A indicates the County of Delaware's Approval of the 2013 Solid Waste Management Plan, Substantial Revision herewith.

Appendix D contains a copy of the *FIRST AMENDMENT TO AMENDED AND RESTATED TRANSFER STATION OPERATIONS AND DISPOSAL AGREEMENT* between Waste Management, Inc. and DCSWA, for the transportation of waste from Transfer Stations #1 & #3 to the EFW facility through December 31, 2015.

Appendix E contains Upper Darby Township Ordinance #2702, which represents ordinances that each municipality enacted to direct the flow of MSW to one of the publicly owned sites as provided in the 2013 Delaware County Solid Waste Management Plan, Substantial Revision.



## **10.0 ORDERLY EXTENSION**

This 2013 Plan has been developed in compliance with the provisions of Act 101, the Municipal Waste Planning, Recycling and Waste Reduction Act, 53 P.S. §4000.101, et seq., and the Pennsylvania Solid Waste Management Act, 35 P.S. §6018.101, et seq.

This 2013 Plan has been developed in a manner that is consistent with the needs of Delaware County and is consistent with the Solid Waste Management Plans of 1985, 1990, and 2002. This Plan is consistent with local municipal land use plans and zoning ordinances of participating municipalities. It is also consistent with regional land use plans and policies developed by the Delaware Valley Regional Planning Commission. The Plan has taken into consideration planning, zoning, population forecasts, engineering, and economics.

## **11.0 METHODS OF DISPOSAL OTHER THAN BY CONTRACTS**

Permits are required for Delaware County municipalities, waste haulers and landscapers using either Transfer Station #1; Delaware County's Compost Farm (located on the grounds of Transfer Station #1); Transfer Station #3; or Delaware County Waste entering Covanta Delaware Valley, L.P.

Rolling Hills Landfill accepts waste generated in Berks County without a contract.

## **12.0 NON-INTERFERENCE**

Covanta Delaware Valley has a long-standing contract with DCSWA. Moreover, since the County of Delaware provided the seed money for the construction of this facility and has the option to buy the facility at the end of the contract, this EfW facility has direct ties to the County of Delaware. In addition, the only facilities that exist in Delaware County for the acceptance of residential MSW are publicly owned sites. The County of Delaware owns and through DCSWA operates its own landfill, Rolling Hills.

Both public and private facilities are available in Delaware County for commercial solid waste. Private transfer stations operate in Delaware County and have the option to transfer their waste to our EfW facility. Both the EfW facility and transfer stations have ample capacity to accept private transfer stations waste. This Plan does not interfere with any current private operation.

### **13.0 PUBLIC PARTICIPATION**

The County of Delaware has complied with all of the provisions related to the appointment of a Solid Waste Advisory Committee prescribed in Act 101 §503.

Questionnaires were sent to all municipalities, area hospitals, refuse haulers, and private transfer station operators. Copies of those questionnaires can be found in Appendices A through D.

Appendix E contains Upper Darby Township's ordinance directing waste to one of our Transfer Stations. All forty-nine municipalities signed similar ordinances which directs MSW to a County designated site.

Minutes of the Solid Waste Advisory Committee meetings are included in Appendix F.

Following Delaware County Council's approval of the *Delaware County Solid Waste Management Plan, Substantial Revision - 2013*, a ninety (90) day public review and comment period was advertised. Interested parties could review this Plan at the DCSWA's main office located at Rose Tree Park – Hunt Club, 1521 N. Providence Road, Media, PA. See Appendix G.

Appendix H contains a Letter of Intent sent to PA DEP on August 1, 2013 to revise the Delaware County Solid Waste Management Plan, Substantial Revision for the term 2013 through 2023.

The public was encouraged to ask questions or make comments at all SWAC Meetings. Verbal comments have become part of that meetings' minutes. Public Comment Sheets with the date of the public meeting listed were provided for public input. See Appendix I. These sheets were also made available for the 90 Day Public Comment Period. Only one comment was received, reviewed by the SWAC and a response letter sent by our solicitor. See Appendices L and M respectively.

## **14.0 OTHER INFORMATION**

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**TABLE 1-1+  
DELAWARE COUNTY  
WASTE CHARACTERISTICS**

<b>YEAR</b>	<b>TOTAL SOLID WASTE *</b>	<b>TOTAL RECYCLABLES *</b>	<b>DIVERSION RATE</b>
2006	446,318	171,107	38%
2007	453,199	189,035	42%
2008	416,118	170,223	41%
2009	454,290	212,005	47%
2010	572,727	342,834	60%
2011	488,225	257,197	53%
2012	499,354	281,664	56%

\*Totals include Residential and Commercial  
SOURCE:  
+ Delaware County Solid Waste Authority  
Revised: May, 2012

**TABLE 1-2 +  
DELAWARE COUNTY  
SOLID WASTE MUNICIPAL (Residential) COLLECTION FIGURES**

Municipality	2008	2009	2010	2011	2012	TOTAL for 5 YEAR PERIOD	Average
Aldan Borough	2,398	2,257	2,323	2,286	1,861	11,125	2,225
Aston Township	7,685	7,761	7,211	7,193	6,668	36,518	7,304
Bethel Township	3,479	3,829	3,617	3,594	3,456	17,975	3,595
Brookhaven Borough	3,348	3,396	3,014	2,878	2,751	15,387	3,077
*Chadds Ford Township	1,844	1,909	1,940	2,522	2,382	10,597	2,119
*Chester Heights Borough	1,431	399	315	148	88	2,381	476
Chester Township	2,012	2,673	2,476	2,648	1,663	11,472	2,294
City of Chester	13,294	14,020	13,202	14,294	13,132	67,942	13,588
Clifton Heights Borough	3,188	3,083	2,954	2,810	2,729	14,764	2,953
Collingdale Borough	3,870	4,105	3,917	3,889	3,748	19,529	3,906
Colwyn Borough	535	691	898	713	909	3,746	749
*Concord Township	7,180	5,050	4,447	3,704	3,653	24,034	4,807
Darby Borough	4,834	4,672	4,661	4,259	3,759	22,185	4,437
Darby Township	4,786	4,725	4,474	4,544	4,380	22,909	4,582
East Lansdowne Borough	1,080	1,425	1,432	1,465	1,216	6,618	1,324
Eddystone Borough	1,239	1,215	1,172	1,189	1,090	5,905	1,181
*Edgmont Township	1,541	1,174	1,199	889	906	5,709	1,142
Folcroft Borough	3,334	3,302	3,159	3,414	2,625	15,834	3,167
Glenolden Borough	3,185	3,221	3,000	2,941	3,145	15,492	3,098
Haverford Township	21,913	20,168	18,488	18,753	18,056	97,378	19,476
Lansdowne Borough	4,618	4,705	4,106	3,354	3,471	20,254	4,051
Lower Chichester Township	1,948	1,904	1,829	1,805	1,728	9,214	1,843
Marcus Hook Borough	1,133	1,241	1,187	1,212	1,138	5,911	1,182
Marple Township	11,648	10,778	10,224	9,941	9,569	52,160	10,432
Media Borough	1,316	1,349	770	770	869	5,074	1,015
*Middletown Township	6,892	6,669	6,846	5,084	5,821	31,312	6,262
Millbourne Borough	418	482	435	478	462	2,275	455
Morton Borough	1,141	1,015	928	936	979	4,999	1,000
*Nether Providence Township	5,251	6,157	6,303	6,352	5,671	29,734	5,947
*Newtown Township	3,676	6,499	6,616	6,452	6,032	29,275	5,855
Norwood Borough	3,567	3,688	3,227	3,289	3,234	17,005	3,401
Parkside Borough	1,124	993	961	1,030	1,253	5,361	1,072
Prospect Park Borough	3,202	3,053	2,936	2,931	2,730	14,852	2,970
Radnor Township	7,529	9,199	8,666	7,839	7,438	40,671	8,134
Ridley Park Borough	2,805	3,231	2,947	2,779	2,780	14,542	2,908
Ridley Township	16,967	15,641	14,674	14,373	13,515	75,170	15,034
*Rose Valley Borough	332	76	32	20	16	476	95
Rutledge Borough	670	669	654	678	618	3,289	658
Sharon Hill Borough	2,943	2,749	2,148	2,315	2,727	5,692	1,138
Springfield Township	12,209	12,912	11,735	11,616	12,078	60,550	12,110
Swarthmore Borough	1,459	1,584	1,349	1,289	1,241	6,922	1,384
*Thornbury Township	3,785	2,195	2,306	2,796	3,271	14,353	2,871
Tinicum Township	2,712	2,709	2,623	2,623	2,522	13,189	2,638
Trainer Borough	1,073	954	946	1,138	1,333	5,444	1,089
Upland Borough	1,507	1,527	1,485	1,472	1,421	7,412	1,482
Upper Chichester Township	6,858	6,909	6,301	6,305	5,847	32,220	6,444
Upper Darby Township	38,089	35,659	33,902	33,972	32,398	174,020	34,804
Upper Providence Township	4,536	4,588	4,110	4,107	4,062	21,403	4,281
Yeadon Borough	4,041	4,477	4,170	4,313	4,253	21,254	4,251
<b>TOTALS</b>	<b>245,625</b>	<b>242,687</b>	<b>228,315</b>	<b>225,402</b>	<b>216,694</b>	<b>1,158,723</b>	<b>231,745</b>

SOURCE:

+ Delaware County Solid Waste Authority

\* Annual Municipal Subscription Totals estimated using 2000 Census Figures for 2008 only

Revised: May, 2013

**TABLE 1-3 +  
DELAWARE COUNTY  
PERMITTED MUNICIPALITIES for RESIDENTIAL MSW**

MUNICIPALITY	LOCATION
Aston Township	Aston, PA 19014
Clifton Heights Borough	Clifton Heights, PA 19018
Collingdale Borough	Collingdale, PA 19023
Eddystone Borough	Eddystone, Pa. 190
Haverford Township	Havertown, PA 19083
Lansdowne Borough	Lansdowne, PA 19050
Lower Chichester Township	Linwood, PA 19061
Marple Township	Broomall, PA 19008
Media Borough	Media, PA 19063
Prospect Park Borough	Prospect Park, PA 19076
Radnor Township	Wayne, PA 19087
Ridley Township	Folsom, PA 19033
Springfield Township	Springfield, PA 19064
Tinicum Township	Essington, PA 19029
Upper Chichester Township.	Boothwyn, PA 19061
Upper Darby Township	Upper Darby, PA 19082

**SOURCE:**

+ Delaware County Solid Waste Authority  
Revised: May, 2013



**TABLE 1-4+**  
**DELAWARE COUNTY**  
**PERMITTED SUBSCRIPTION HAULERS for RESIDENTIAL MSW**

NAME	LOCATION
B & L Disposal Services	Wallingford, PA 19086
Boyle Disposal	Wallingford, PA 19086
Harry S. Brown	Swarthmore, PA 19081
Citywide Service, Inc.	Sharon Hill, PA 19079
J & K Trash Removal	Gradyville, PA 19039
JPS Equipment Co.	Edgmont, PA 19028
J.P. Mascaro	Audubon, PA 19403
Laxton Enterprises, Inc.	Lenni, PA 19052
R. T. Opdenaker & Sons, Inc.	Aston, PA 19014
Republic Services, Inc.	King of Prussia, PA 19406
Suburban Waste Services Inc.	Bear, DE 19701
Waste Management of Delaware Valley South	Primos, PA 19018

**SOURCE:**

+ Delaware County Solid Waste Authority  
 Revised: April, 2013

**TABLE 1-5+**  
**DELAWARE COUNTY**  
**PERMITTED COMMERCIAL/INDUSTRIAL WASTE HAULERS**

NAME	LOCATION
A. T. Builders	Drexel Hill, PA 19026
Accurate Metals, LLC	Lansdowne, PA 19050
Accurate Recycling Corp.	Lansdowne, PA 19050
Accurate Trash Removal, Inc.	Lansdowne, PA 19050
Advanced Disposal	Skippack, PA 19474
Advanced Clean Out Services, Inc.	Garnet Valley, PA 19060
A.J. Blosenski, Inc.	Honeybrook, PA 19344
Alfonso Sanbe Masonry Contractor	Chester, PA 19013
Banta's Bestway Trash Remove All Co.	Boothwyn, PA 19061
Boyle Disposal	Wallingford, PA 19086
Brandywine Waste Services, LLC	Talleyville, DE 19803
Brown, Harry S.	Glen Riddle, PA 19377
Brujus Inc.	Folsom, PA 19033
Castner Containers, LLC	Broomall PA 19008
Castner Group, Inc.	Broomall PA 19008
City Wide Service, Inc.	Sharon Hill, PA 19079
Clark Inc.	Springfield, PA 19064
Cleaver Cable Construction, Inc.	Glenolden, PA 19036
Coco's Container Service	Eddystone, PA 19022
College Hunks Hauling Junk	Exton, PA 19341
Crispin, Inc.	Focroft, PA 19032
E Build Contruction, LLC	Broomall PA 19008
Gallo Brothers Development, LLC	Norristown, PA 19401
Gentile's Farm Market Co., Inc.	Gradyville, PA 19039
Geraghty	Narbeth, PA 19072
Gold Metal Disposal, Inc.	Phila. PA 19153
Hart & Son	Glenolden, PA 19036
Impriano Roofing, Inc.	Berwyn, PA 19312
Innaurato Contractors	Swarthmore, PA 19081
J & K Trash Removal, Inc.	Gradyville, PA 19039
J.P. Mascaro & Sons	Souderton, PA 18964
J.P.S. Equipment Co., Inc.	Edgmont, PA 19028
Joe's Building & Plumbing Supplies, Inc.	Chester, PA 19013
Johnston & Sons, Inc.	Glenolden, PA 19036
Jurich Inc.	Aston, PA 19014
Knight Hauling, Inc.	Trainer, PA 19061
Laxton Enterprises, Inc.	Lenni, PA 19052
Miller Roofing & Sheet Metal Inc.	Lansdowne, PA 19050
Modern Recycling Services, LLC	Eagleville, PA 19408
Opdenaker & Sons, Inc.	Aston, PA 19014
P & L Company	Chester, PA 19013
Pastuszek Real Estate	Swarthmore, PA 19081
Pinciotti Rubbish Removal	Secane, PA 19018
Pro Clean Out	Brookhaven, PA 19015
Rayer Excavation, LLC	Media, PA 19063
Republic Services	King of Prussia, PA 19406
Savoy Enterprises, Inc.	Claymont, DE 19703
Suburban Waste Services Inc.	Bear, DE 19701
TLJ Recycling ContainersServices	Depford NJ 08096
Waste Management Delaware	Wilmington DE 19804
Waste Management of Delaware Valley South	Primos, PA 19018
Worrell's Trash Removal	Boothwyn, PA 19061

**SOURCE:**

+Delaware County Solid Waste Authority

Revised: April, 2013

**TABLE 1-6+**  
**DELAWARE COUNTY**  
**PERMITTED INSTITUTION and EDUCATIONAL FACILITY HAULERS**

NAME	LOCATION
Chester Housing Authority	Chester, PA 19013
Chester Upland School District	Chester, PA 19013
Community Action Agency of Delaware County	Media, PA 19063
Delaware County Housing Authority	Woodlyn, PA 19094
Haverford School District	Havertown, PA 19083
Upper Darby School District	Upper Darby, PA 19082
Villanova University	Villanova, PA 19085

SOURCE:  
+ Delaware County Solid Waste Authority  
Revised: April, 2013

**TABLE 1-7+**  
**DELAWARE COUNTY**  
**PERMITTED LANDSCAPING, PARKS, and YARD WASTE HAULERS**

NAME	LOCATION
Bob Wells Landscaping	Broomall, PA 19008
Brant Blackburn Landscaping	Springfield, PA 19064
Clay Landscaping	Lansdowne, PA 19050
Colagreco Landscaping	Drexel Hill, PA 19026
Curtis Landscaping, LLC	Newtown Square, PA 19073
Delaware County Parks	Media, PA 19063
DGS Landscaping, LLC	Chester, PA 19013
Duranti's Landscaping, Inc.	Broomall, PA 19008
Emil P. Weiss Landscaping	Media, PA 19063
Ferry Landscaping	Prospect Park, 19073
Gualberiti Lawn Care	Glenolden, PA 19036
Richard J. Angelini Landscaping	Boothwyn, PA 19061
Scheib's Landscaping	Folsom, PA 19033
Starr Lawn Care	Wallingford, PA 19086

**SOURCE:**

+ Delaware County Solid Waste Authority  
 Revised: April, 2013

**TABLE 1-8+**  
**DELAWARE COUNTY**  
**PERMITTED HIGHWAY DEPARTMENT HAULERS**

NAME	LOCATION
Aldan Borough Hwy.	Aldan, PA 19018
Aston Township Hwy.	Aston, PA 19014
Bethel Township Hwy.	Garnet Valley, PA 19061
Brookhaven Borough Hwy.	Brookhaven, PA 19015
Chester City Hwy.	Chester, PA 19013
Chester Township Hwy.	Chester, PA 19013
Clifton Heights Borough Hwy.	Clifton Heights, PA 19018
Collingdale Borough Hwy.	Collingdale, PA 19023
Darby Borough Hwy.	Darby, PA 19023
Darby Township Hwy.	Glenolden, PA 19036
East Lansdowne Borough Hwy.	East Lansdowne, PA 19050
Eddystone Borough Hwy.	Eddystone, PA 19022
Folcroft Borough Hwy.	Folcroft, PA 19032
Haverford Township Hwy.	Havertown, PA 19083
Lansdowne Borough Hwy.	Lansdowne, PA 19050
Lower Chichester Township Hwy.	Linwood, PA 19061
Marcus Hook Borough Hwy.	Marcus Hook, PA 19061
Marple Township Hwy.	Broomall, PA 19008
Media Borough Hwy.	Media, PA 19063
Middletown Township Hwy.	Lima, PA 19037
Morton Borough Hwy.	Morton, PA 19070
Nether Providence Township Hwy.	Wallingford, PA 19086
Newtown Township Hwy.	Newtown Square, PA 19073
Parkside Borough Hwy.	Parkside, PA 19015
Prospect Park Borough Hwy.	Prospect Park, PA 19076
Radnor Township Hwy.	Wayne, PA 19087
Ridley Park Borough Hwy.	Ridley Park, PA 19078
Ridley Township Hwy.	Folsom, PA 19033
Sharon Hill Borough Hwy.	Sharon Hill, PA 19079
Springfield Township Hwy.	Springfield, PA 19064
Swarthmore Borough Hwy.	Swarthmore, PA 19081
Tinicum Township	Essington, PA 19029
Trainer Borough Hwy.	Trainer, PA 19061
Upland Borough Hwy.	Upland, PA 19015
Upper Chichester Township Hwy.	Boothwyn, PA 19061
Upper Darby Township Hwy.	Upper Darby, PA 19082
Upper Providence Township Hwy.	Media, PA 19063
Yeadon Borough Hwy.	Yeadon, PA 19050

SOURCE:

+ Delaware County Solid Waste Authority

Revised: April, 2013

**TABLE 1-9+**  
**DELAWARE COUNTY**  
**SOLID WASTE COLLECTION SYSTEMS**

<b>Municipality</b>	<b>2010 Census Population++</b>	<b>Municipality Type++</b>	<b>Existing MSW Collection System+*</b>
Aldan Borough	4,152	Borough	Suburban Waste
Aston Township	16,592	1st Class Twp.	Municipal
Bethel Township	8,791	2nd Class Twp.	Republic Services
Brookhaven Borough	8,006	Borough	J.P. Mascaro
Chadds Ford Township	3,170	2nd Class Twp.	Subscription**
Chester Heights Borough	2,531	Borough	Subscription**
Chester Township	4,604	2nd Class Twp.	Suburban Waste
City of Chester	33,972	City	Suburban Waste
Clifton Heights Borough	6,779	Borough	Municipal/Suburban Waste
Collingdale Borough	8,786	Borough	Municipal
Colwyn Borough	2,453	Borough	Suburban Waste
Concord Township	17,231	2nd Class Twp.	Subscription**
Darby Borough	10,687	Borough	Suburban Waste
Darby Township	9,264	1st Class Twp.	City Wide Services
East Lansdowne Borough	2,668	Borough	Suburban Waste
Eddystone Borough	2,442	Borough	Municipal
Edgmont Township	3,987	2nd Class Twp.	Subscription**
Folcroft Borough	6,978	Borough	Suburban Waste
Glenolden Borough	7,476	Borough	Suburban Waste
Haverford Township	48,491	1st Class Twp.	Municipal
Lansdowne Borough	10,620	Borough	Municipal
Lower Chichester Township	3,469	1st Class Twp.	Municipal
Marcus Hook Borough	2,314	Borough	Laxton Enterprises
Marple Township	23,737	1st Class Twp.	Municipal
Media Borough	5,327	Borough	Municipal
Middletown Township	15,807	2nd Class Twp.	Subscription**
Millbourne Borough	1,159	Borough	Suburban Waste
Morton Borough	2,669	Borough	Republic Services - Phila.
Nether Providence Township	13,706	1st Class Twp.	Subscription**
Newtown Township	12,216	2nd Class Twp.	Subscription**
Norwood Borough	5,890	Borough	Suburban Waste
Parkside Borough	2,328	Borough	Laxton Enterprises
Prospect Park Borough	6,454	Borough	Municipal
Radnor Township	31,531	1st Class Twp.	Municipal
Ridley Park Borough	7,196	Borough	J.P. Mascaro
Ridley Township	30,768	1st Class Twp.	Municipal
Rose Valley Borough	913	Borough	Subscription**
Rutledge Borough	784	Borough	Republic Services
Sharon Hill Borough	5,468	Borough	Suburban Waste
Springfield Township	24,211	1st Class Twp.	Municipal
Swarthmore Borough	6,194	Borough	Suburban Waste
Thornbury Township	8,028	2nd Class Twp.	Subscription**
Tinicum Township	4,091	1st Class Twp.	Municipal
Trainer Borough	1,828	Borough	Laxton Enterprises
Upland Borough	3,239	Borough	B & L Disposal Services
Upper Chichester Township	16,738	1st Class Twp.	Municipal
Upper Darby Township	82,795	1st Class Twp.	Municipal
Upper Providence Township	10,142	2nd Class Twp.	J.P. Mascaro
Yeadon Borough	11,443	Borough	Suburban Waste
<b>GRAND TOTAL</b>	<b>560,125</b>		

\*\* Residents subscribe to any of the following haulers:

Banta's Bestway Trash Remove All Co., Boyle Disposal, Laxton Ent., Inc.,  
Suburban Waste Services, Harry S. Brown, R.T. Opendaker & Sons, Inc.  
Harry S. Brown, J & K Trash Removal, J.P. Mascaro, Waste Management,  
Republic Services, Inc.

**SOURCE:**

+ Delaware County Solid Waste Authority

++ Delaware County Planning Department

\* Private haulers listed are contracted for service by the municipality.

Revised: April, 2013

**TABLE 1-10+**  
**COMMERCIAL WASTE TOTALS for DELAWARE COUNTY**

<b>COMMERCIAL TOTALS</b>	
<b>YEAR</b>	<b>TONNAGE TOTALS</b>
2006	138,370
2007	137,712
2008	148,862
2009	132,920
2010	130,845
2011	136,173
2012	140,619

SOURCE:

+ Delaware County Solid Waste Authority

Revised: April, 2013

**TABLE 1-11 +**  
**CAPACITY SUMMARY OF**  
**SEWAGE AND SEPTAGE SLUDGE FACILITIES**

<b>Wastewater Treatment Plants</b>	<b>EDUs<sup>a</sup> Serviced</b>	<b>Residents Serviced</b>	<b>Plant Type</b>	<b>Current Flow (MGD)</b>	<b>Current Capacity (MGD)</b>
DELCORA	--	289,700	Extended Aeration	28.9	50.0
Phila SW	--	131,164 <sup>b</sup>	Extended Aeration	30.4 <sup>b</sup>	50.0 <sup>b</sup>
SWDCMA	16,500	--	Extended Aeration	4.8	6.0
Brookhaven WWTP	806	2,418	Extended Aeration	0.148	0.192
Rose Valley STP	364	--	Trickling Filter	0.052	0.13
Wilmington WWTP	1,088	3,381	Extended Aeration	0.222	N/A
Tincum Township STP	--	4,610	Trickling Filter	0.9	2.8
Little Washington WWTP (Media)	5,241	15,000	Extended Aeration	1.472	1.8
Concord Township WWTP	4,190 <sup>c</sup>	17,231	Extended Aeration	0.968	1.8
Thornbury Township WWTP	794	1,900 <sup>e</sup>	Extended Aeration	0.094	0.18
Glen Mills School TF	--	500 <sup>f</sup>	Extended Aeration	0.07	0.15
Cheyney University TF	--	1,600	Trickling Filter	0.03	0.8
Ridings at Chadds Ford STP	72 <sup>d</sup>	207	Extended Aeration	0.05	0.1
Henderson/Knight's Bridge WWTP	--	--	Extended Aeration	--	--
Springhill Farm STP	--	--	Extended Aeration	0.05	0.1
Pantos/Painter's Crossing WWTP	--	--	Decommissioned	0	0
Turner's Mill-Chadds Ford	--	--	Extended Aeration	.05	.14

<b>TOTALS</b>	<b>29,055</b>	<b>467,711</b>		<b>68.156</b>	<b>114.192</b>
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**TABLE 1-11 +**

**CAPACITY SUMMARY OF  
SEWAGE AND SEPTAGE SLUDGE FACILITIES**

**Legend:**

WWTP - Wastewater Treatment Plant

STP - Sewage Treatment Plant

TF – Treatment Facility

SWDCMA - Southwest Delaware County Municipal Authority

DELCORA - Delaware County Regional Water Quality Control Authority

Phila SW - Philadelphia Southwest Water Pollution Control Facility

MGD - Million gallons per day

a – Customers served is measured in Equivalent Dwelling Units (EDUs)

b – DELCORA agreement with City of Philadelphia is for 50MGD avg. flow, with a surcharge for flow over 50MGD. Population figure and only for Delaware County portion. 28.9 MGD of the flow comes from DELCORA, the remainder of the Delaware County flow to Philadelphia comes directly from the Eastern portion of Upper Darby Twp., and also includes wastewater from Millbourne, East Lansdowne, Haverford, and Yeadon.

c – Sent to New Castle County, Delaware via the Southern Delaware County Authority. Numbers are for SDCA controlled flow to plant (Delaware County portion).

d – Based on current flow rate for STP and 350 GPD per EDU.

e – Based on 300 homes serviced and Census Data of 3.0 residents/home in Thornbury Twp.

f – Represents the number of students living at the school, does not include staff.

-- Indicates data unavailable or not on record.

Population figures for Residents Serviced are approximate.

**SOURCE:**

+ Delaware County Planning Department

Revised: June, 2013

**TABLE 1-12 +**

**GENERATION SUMMARY OF POTABLE WATER/WASTEWATER  
SLUDGE FACILITIES**

<b>Potable Water</b>	<b>Flow</b>	<b>Sludge Produced Per Year</b>	<b>Percent Solids</b>
Aqua Pennsylvania, Crum Creek facility All Crum Creek Water Tmt. Plant Facility sludge goes to an Aqua owned mono-fill	17 MGD	2,372 tons	25.4%
Aqua Pennsylvania, Ridley Creek facility Landfill: 117 Tons at 17% solids Land application: 264 tons at 20% solids	4.1 MGD		
<b>Wastewater</b>	<b>Flow</b>	<b>Sludge Produced Per Year</b>	<b>Percent Solids</b>
DELCORA Western Regional Treatment facility	40 MGD	4,512 tons	100%

**Note:**

- DELCORA “Sludge” is incinerator ash containing sludge incinerator residue from the DELCORA facility as well as from the Concord WWTP, Media WWTP, Tincum WWTP, Thornbury WWTP and two plants in Chadds Ford.
- SWDCMA in Aston also generates sludge that they process on site for land disposal.
- DELCORA ash is disposed of by VFL Technology who operates an approved landfill near Wilmington, DE

MGD – million gallons per day  
Percent Solids is percent dry solids by weight

**SOURCE:**

+ Delaware County Planning Dept.  
Revised: June, 2013

**TABLE 1-13 +  
LIST OF SLUDGE HANDLERS  
AND SEPTIC SYSTEM PUMPERs**

---

A-Action Plumbing, Inc  
2305 Garry Road, Suite B  
Cinnaminson, NJ 08077  
856-303-8600

A Honeydipper Septic Service  
87 Township Line, P. O. Box 427  
Douglassville, PA 19518

A-1 Sanitation Service, Inc.  
1009 River Rd.  
New Castle, DE 19720  
302-322-1074

Ace Disposal Corporation  
1133 W. Valley Hill Road  
Malvern, PA 19355  
610-644-3685, 800-746-2612  
[www.acedisposal.net](http://www.acedisposal.net)

Allstate Power Vac (septic)  
928 East Hazelwood Avenue  
Rahway, NJ 07065-56634  
732-815-0220

American Sewer Service, Inc. (septic)  
734 B. Ashland Avenue  
Folcroft, PA 19032  
610-583-3600

Aqua Wastewater (septic)  
60 Schoolhouse Road  
Souderton, PA 18964  
610-459-1616  
[www.aquaamerica.com/Pages/aquawaste  
watermanagement.aspx](http://www.aquaamerica.com/Pages/aquawaste_watermanagement.aspx)

Arrow Sanitary Service, Inc.  
1772 Pulaski Highway  
800-880-4797  
Bear, PA

[www.arrowsanitary.com](http://www.arrowsanitary.com)  
Associated Products Services, Inc.  
(septic)  
2 East Road  
Mechanicsburg, PA 17050  
717-766-5397

Bill Sweigart Wastewater, Inc.  
506-B Weir Road  
Upper Chichester, PA 19014  
610-485-3272

Broadbent's, Inc.  
39 Industrial Highway  
Essington, PA 19029  
610-521-0330

C& H Disposal Service, Inc. (septic)  
47 Griers Lane  
Elmer, NJ 08318  
856-358-3457

C. M. Kristman, Sanitation (septic)  
1099 Cannery Road  
Coatesville, PA 19320  
610) 347-0688

Caprioni Portable Toilets, Inc.  
188 Head of the River Road  
Belleplaine, NJ 08270  
609-861-2298

**SOURCE:**

+ Delaware County Planning Department and DELCORA

**TABLE 1-13 +**

Central Jersey Septic, Inc.,  
(a.k.a. Johnny on the Spot)  
3168 Bordentown Avenue  
Old Bridge, NJ 08857  
(732) 566-3434

Cialini Septic Service (septic)  
1439 Williamsburg Drive  
West Chester, PA 19382  
610-506-9191

Clark's Environmental Services  
4318 Allen Road  
Salisbury, MD 21801  
410-742-2718

Clean Venture, Inc.  
201 South First Street  
Elizabeth, NJ 07206  
908-355-5800

Delaware Valley Septics  
136 Maplewood Avenue  
Upper Darby, PA 19082  
610-789-0739  
[www.delawarevalleyseptics.com](http://www.delawarevalleyseptics.com)

Elk Transportation, Inc.  
1420 Clarion Street  
Reading, PA 19601  
610-372-4760

English Sewage Disposal, Inc.  
P.O. Box 5189  
1082 Parsonage Road  
Bridgeton, NJ 08302  
856-358-4771  
[www.englishsewage.com](http://www.englishsewage.com)

Environmental Erosion Control, Inc.  
(septic)  
2017 Ohio Avenue  
Atco, New Jersey 08004  
609-209-7029

Ewing, Inc.  
2200 Palomino Ranch Road  
Havre de Grace, MD 21078  
410-272-0903

Franc Environmental, Inc.  
321 Maple Avenue  
Horsham, PA 19044  
215-997-0920

George Allen Wastewater, Inc.  
4375 County Line Road  
Colmar, PA 18915  
215-997-3299

Grannetino, Inc.  
1311 Ashbridge Road  
West Chester, PA 19380  
610-696-2454

Gray Brothers, Inc. (septic)  
1696 E. Lancaster Avenue  
Paoli, PA 19301  
610-644-2800  
[www.graybrothersinc.com](http://www.graybrothersinc.com)

IPC of Delaware, Inc  
505 South Market Street  
Wilmington, DE 19801  
302-421-9306

**SOURCE:**

+Delaware County Planning Department and DELCORA

**TABLE 1-13 +**

Central Jersey Septic, Inc.,  
(a.k.a. Johnny on the Spot)  
3168 Bordentown Avenue  
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IPC of Delaware, Inc  
505 South Market Street  
Wilmington, DE 19801  
302-421-9306

**SOURCE:**

+Delaware County Planning Department and DELCORA

**TABLE 1-13 +**

Rosey's Tank Cleaning and Pipe  
Services Group  
1940 Harris Avenue  
Deptford, NJ 08096  
856-227-5200

Russell Reid Wastewater Management  
200 Smith Street - POB 130  
Keasbey, NJ 08832-0130  
732-225-2238

SJ Transportation Co., Inc.  
P. O. Box 169  
1176 U.S. Route 40  
Woodstown, NJ 08098  
856 769-2741

Septic Solutions, LLC  
12 Walnut Drive  
Kirkwood, PA 17536  
717-587-1169

Steve Eldredge Sanitation  
322 Turner Lane  
West Chester, PA 19380  
610-918-8600  
[www.eldredgesepctic.com](http://www.eldredgesepctic.com)

Tri-State Landscaping  
P.O. Box 25  
Landenberg, PA 19350  
(610) 268-3280

US Environmental  
409 Boot Road  
Downingtown, PA 19335  
(610) 518-5800

Valley Proteins, Inc.  
P.O. Box 3588  
Winchester, VA 22604  
540-877-2092

Veolia Environmental Services  
3100 Hedley Street  
215-289-3700  
Philadelphia, PA 19137

Waste Oil Recyclers, Inc.  
P. O. Box 257  
Modena, PA 19358  
610-357-0375

Web Hauling & Distribution, Inc.  
2 Longstreet Road  
Monroe Township, NJ 08831  
609-448-6026

William P. McGovern  
1144 West Baltimore Pike  
Kennett Square, PA 19348  
610 444-5797

**SOURCE:**

+Delaware County Planning Department and DELCORA

**TABLE 1-14 +  
DELAWARE COUNTY ~  
AUTOMOTIVE PRODUCTS' RECYCLING SITES**

City	Company Name	Phone	Waste Oil	Waste Oil Furnace	Antifreeze	Kerosene	Car Batteries	Tires	Scrap Metal
Aston	Aston Township (rear of bldg) 5021 Pennell Road 19014	610-494-1636	√		<b>Open to Aston Residents ONLY</b>				
Aston	Aston Sunoco 3355 Market St., 19014	610-497-0483	√	√	√	√	√	\$2.00 each	√
Aston	Nelson's Auto Service 507 Bethel Ave. 19014	610-497-3700	√		√		√	\$2 car \$3 truck	√
Brookhaven	A M F Auto Clinic 3808 Edgemont Ave. 19015	610-872-2167	√		\$2 per gal.		√		Call
Brookhaven	Brookhaven Auto Center 4605 Edgmont Ave. 19015	610-874-2099						Call	√
Broomall	D'Urbano Automotive 3060 W. Chester Pike 19008	610-325-9122	√		√		√	\$2.50 each	
Broomall	Fritsch's Service Center 2109 S. Sproul Rd. 19008	610-356-1845	√		√		√		√
Broomall	Mr. Tire 2610 West Chester Pike 19008	610-356-6300					\$3.00 each	Call	
Broomall	Pacifico Marple Ford & Suzuki 3015 West Chester Pike 19008	610-353-5500	√		√		√	Varies	
Chester	Al's Transmission Service 400 Engle St.	610-494-7100							√
Clifton Heights	Cal's Automotive 441 E. Baltimore Pike 19018	610-394-3220	√				√		
Clifton Heights	Conti's Garage, Inc. 2 W. Madison Ave. 19018	610-623-9914	√				√	\$4.00 each	√
Collingdale	Collingdale Performance Inc. 710 MacDade Blvd	610-461-5033	√						
Collingdale	Frank's MacDade Auto Service 1100 MacDade Blvd. 19023	610-461-1660	√		√		√		√
Darby	Quality Diagnostics 1261 Macdade Blvd 19023	610-534-8863	√		√	√	√		√
Darby	Jay's Auto Service 603 Greenway Ave. 19023	610-583-8353	√	√	\$1 per gal.	√	√		√
Drexel Hill	Bruno's Service Center 5000 Township Line Rd 19026	610-446-9961	√		√		√		√
Drexel Hill	John Hauser's Drexel Automotive Inc. 518 Burmont Road 19026	610-623-6679	√				√		
Drexel Hill	Pyle & Innis Auto Repair 3421 Garrett Rd. 19026	610-259-2386	√			√	√	\$3.00 Car	√
Drexel Hill	Stephanou's Service Center Inc. 2319 Marshall Rd. 19050	610-259-9164	√	√					
Eddystone	Burkes Automotive 1195 Chester Pike	610-872-5760	\$1.00 gal.		\$2.00 gal.		\$2.00 each	\$1.00 each	
Eddystone	Chester Transmission, Inc. 1229 Chester Pike 19022	610-872-8868	√	√		√	√		√
Eddystone	Manera's Auto & Truck Repair Inc. 1209-B Chester Pike 19022	610-490-6914	√				√		√
Edgmont	Videon Chrysler 4949 West Chester Pike 19028	610-356-7000	√						
Essington	General Transmission Serv. 1 Jansen Ave. 19029	610-521-6010	√		√	√	√	Car only	√
Folcroft	Glenolden Service Center Inc. 932 Ashland Ave. 19032	610-461-2220	√			√	√		√
Folcroft	Harry's Auto Center 1900 Delmar Drive 19032	610-461-9797	√		√	√	√	√	√
Folsom	Jones' Amoco 614 Macdade Blvd. 19033	610-583-3015					√		
Glenolden	A&A Auto Service 410 Oak Ave 19036	610-586-4900	√			√			
Glenolden	Briarcliffe Auto Service 1062 W. Ashland Ave. 19035	610-532-0777	√		√		√		
Glenolden	Famiano's Auto Repairs N. Academy/ W. Cooke Ave. 19036	610-534-1606	√				√		

SOURCE:  
+Delaware County Solid Waste Authority  
Revised: April, 2013

**TABLE 1-14 +  
DELAWARE COUNTY ~  
AUTOMOTIVE PRODUCTS' RECYCLING SITES**

City	Company Name	Phone	Waste Oil	Waste Oil Furnace	Antifreeze	Kerosene	Car Batteries	Tires	Scrap Metal
Glenolden	M.B. Service Center 129 N. MacDade Blvd. 19036	610-583-0322	\$ .25 qt.		\$ .25 per qt.		\$5.00 each	\$4 car \$5 truck	√
Glenolden	Robin Ford 100 N. Macdade Blvd. 19036	610-586-3600	√		√		√	\$2 car \$4 truck	
Havertown	Havertown Tire and Service 418 E. Township Line Rd. 19083	610-789-0400					√	\$3.00 each	√
Havertown	Imported Automotive LTD. 220 W. Hillcrest Ave. 19083	610-446-2702	√	√	√	√	√	\$1 car \$2 truck	√
Havertown	Jiffy Lube 20 W. Township Line Rd 19083	610-789-0497	√						
Lester/ Tinicum	Chick's Auto And Truck Repairs 333 S. Gov. Printz Blvd. 19029	610-521-1266	√	√	√	√	√		√
Lester/ Tinicum	Denny's Auto Repair 1304 4th Ave. 19029	610-521-3673	√	√	√	√	√	\$2 car \$3 truck	√
Lima/Middletown	Qyst Tire & Auto Centers 14 S. Pennell Rd. 19087	610-565-1553	√		√	√	√		√
Linwood	Linwood Motor Service 1415 Market St. 19061	610-485-1187						\$2 car \$3 truck	
Media	By-Pass Garage Inc. The Sunoco in Rose Tree 1491 N. Providence Rd. 19063	610-566-8864	over 10 gal.		√	√	Call		Call
Media	Cottman Transmission 32 W. Baltimore Pike 19063	610-565-5210	√	√	√	√	√		√
Media	Fulmer's Garage 600 Park Ave. 19063	610-565-5346	√	√	√	√	√		√
Media	Morelli's Service Center 3460 Pennell Road	610-485-1885	√						
Media	Qyst Tire & Auto Centers 1256 N. Providence Rd. 19063	610-565-0480	√		√	√	√		√
Morton	Quality Brakes Plus 239 Woodland Ave 19070	610-544-8810	√		√		√		√
Morton	Warner's Sunoco Service 753 Kedron Ave. 19070	610-543-9827	√						
Newtown Square	Mulloy's Automotive 26 S. Newtown Street Rd. 19073	610-353-0463	√		√		√	\$3.50	√
Prospect Park	BT Automotive, Inc. 660 13th Ave. 9E 19076	610-522-5899	√			√	√		√
Ridley Park	Carrow's Service Center 109 E. Sellers Ave. 19078	610-521-9977	√		√		√	\$5.00 each	
Ridley Park	Brad Smith's Service Center 247 E. Chester Pike 19078	610-532-2156	√		√		√		√
Secane	Chris Hunter's Auto Repair 612 South Ave. 19018	610-543-9030	√		√		√		
Sharon Hill	Widdis Auto Repair Inc. 928 Chester Pike 19079	610-583-4626	√		√		√		
Springfield	Springfield Township Public Works 1258 Church Rd. 19064	610-543-2837	√		<b>Open to Springfield Residents ONLY</b>				
Springfield	Tom McGarrigle's Gulf 23 E. Woodland Ave 19064	610-543-4223	√		√			\$2.00 each	√
Swarthmore	J's Tire Center 523 S. Chester Rd. 19081	610-328-2850						\$2.50 car \$5-10 truck	
Upper Darby	Jim Suny Auto Specialist 9115 West Chester Pike 19082	610-789-9926	√				√		
Upper Darby	Lou's Auto Service 143-151 S. State Rd. 19082	610-352-9600	√				√	\$2.00 each	
Upper Darby	Shiva's Auto Repair & Insp. 7590 West Chester Pike 19082	484-452-6414	√			√	√	\$1.00 ea. Car ONLY	√
Upper Darby	Upper Darby Auto Service 7045 W. Chester Pike 19082	610-352-1460	√		√		\$5.00 each	\$5 car \$10 truck	√

SOURCE:  
+ Delaware County Solid Waste Authority  
Revised: April, 2013



**TABLE 1-14 +  
 DELAWARE COUNTY ~  
 AUTOMOTIVE PRODUCTS' RECYCLING SITES**

City	Company Name	Phone	Waste		Car			Scrap Metal
			Oil	Waste Oil Furnace	Antifreeze	Kerosene	Batteries	
Woodlyn	Cesare's Auto Repair Inc. 32 Randall Ave. 19094	610-833-2126	√				√	
Yeadon	East Penn Mfg. Co. Inc. (Deka Batteries) 480 Commerce Drive 19050	610-622-6650					√	
Large Quantities of Tires:	Emanuel Tire of PA 1251 Conshohocken Road Conshohocken, PA 19428	610-277-6670					Check regarding fee	

Improperly disposed automotive products can be damaging to the environment, animals, as well as human health. The stations in Delaware County listed above accept for recycling, the items indicated. Some have restrictions. *Please call first -- NEVER* leave items when the business is closed.

SOURCE:  
 +Delaware County Solid Waste Authority  
 Revised: April, 2013

**TABLE 2-1 +  
DELAWARE COUNTY TRANSFER STATIONS**

COUNTY MUNICIPALITY MATERIAL TYPE	ID NUMBER NAME PHYSICAL ADDRESS	MAILING ADDRESS STREET ADDRESS CITY ~ ZIP	CONTACT PERSON TITLE PHONE NUMBER
Delaware Chester Township MSW	101188 DCSWA Transfer Station #1 2300 Concord Road Chester, PA 19013	DCSWA Rose Tree Park ~ Hunt Club 1521 N. Providence Road Media, PA 19063	Michael R. McNichol, Director 610-892-9627
Delaware Marple Township MSW	101103 DCSWA Transfer Station #3 Marpit Drive & Sussex Blvd. Broomall, PA 19008	DCSWA Rose Tree Park ~ Hunt Club 1521 N. Providence Road Media, PA 19063	Michael R. McNichol, Director 610-892-9627
Delaware Chester Township C & D	101226 Savoy's Transfer Station 52 Concord Road Chester, PA 19013	52 Concord Road Chester, PA 19013	John Savoy, Owner/Operator 610-497-2012
Delaware Upper Darby Township C & D	101224 Waste Management 408 S. Oak Avenue Primos, PA 19018	408 S. Oak Avenue Primos, PA 19018	Stephen Mitchell, District Mgr 610-626-7500
Delaware Upper Darby Township C & D	WMGM025SE0018 Accurate Trash 508 E. Baltimore Avenue Lansdowne, PA 19050	508 E. Baltimore Avenue Lansdowne, PA 19050	David Lasensky, Owner/Operator 610-623-7772

**SOURCE:**

+ Delaware County Solid Waste Authority  
Revised: June, 2013

**TABLE 2-2+  
ROLLING HILLS LANDFILL BREAKDOWN  
2004 - 2012 WASTE ACCEPTED**

**2004**

MONTH	DELAWARE CO. ASH	MONTGOMERY CO. ASH	NJ ASH	DEL. CO.	BERKS	MONTGOMERY CO.
Total	381,557.45	69,621.25	16,692.16	48,328.66	126,441.24	52,027.99

**2005**

MONTH	DELAWARE CO. ASH	MONTGOMERY CO. ASH	NJ ASH	DEL. CO.	BERKS	MONTGOMERY CO.	CHESTER COUNTY
Total	355,821.50	119,011.10	55,680.37	22,814.04	110,583.67	64,355.87	7,250.16

**2006**

MONTH	DELAWARE CO. ASH	MONTGOMERY CO. ASH	NJ ASH	DEL. CO.	BERKS	MONTGOMERY CO.	CHESTER COUNTY
Total	362,222.72	111,876.25	102,481.12	1,856.44	111,851.51	61,083.84	26,295.00

**2007**

MONTH	DELAWARE CO. ASH	MONTGOMERY CO. ASH	NJ ASH	DEL. CO.	BERKS	MONTGOMERY CO.	CHESTER COUNTY
Total	351,116.26	114,631.61	100,104.68	1,817.40	98,276.00	34,893.53	17,494.59

**2008**

MONTH	DELAWARE CO. ASH	MONTGOMERY CO. ASH	NJ ASH	DEL. CO.	BERKS	MONTGOMERY CO.	CHESTER COUNTY
Total	386,589.30	115,950.58	100,015.98	1,153.07	85,578.04	26,299.45	10,333.85

**2009**

MONTH	DELAWARE CO. ASH	MONTGOMERY CO. ASH	NJ ASH	DEL. CO.	BERKS	MONTGOMERY CO.	CHESTER COUNTY
Total	418,944.95	112,359.05	1,144.33	1,686.29	83,995.65	22,757.25	9,672.19

**2010**

MONTH	DELAWARE CO. ASH	MONTGOMERY CO. ASH	NJ ASH	BERKS-ASH	DEL. CO.	BERKS	MONTGOMERY CO.	CHESTER COUNTY
Total	380,659.60	108,122.27	43,870.62	41,212.22	1,194.22	78,597.64	19,992.59	7,830.03

**2011**

MONTH	DELAWARE CO. ASH	MONTGOMERY CO. ASH	NJ ASH	BERKS-ASH	NJ SOIL	DEL. CO.	BERKS	MONTGOMERY CO.
Total	376,188.01	108,509.13	11,595.50	41,118.52	23,395.29	654.15	76,831.25	17,632.64

**2012**

MONTH	DELAWARE CO. ASH	MONTGOMERY CO. ASH	BERKS - ASH	NJ SOIL	NJ C&D	DEL. CO.	BERKS	MONTGOMERY CO.	CHESTER CO.
Total	368,950.66	109,202.72	35,062.82	6,431.03	56,112.48	563.71	71,135.84	16,263.70	7,479.22

SOURCE:

+ Delaware County Solid Waste Authority

**TABLE 2-3 +  
ROLLING HILLS LANDFILL BREAKDOWN  
2004 – 2012**

**2004 - 2012 WASTE ACCEPTED**

**2004**

MONTH	DELAWARE CO. ASH	MONTGOMERY CO. ASH	NJ ASH	DEL. CO.	BERKS	MONTGOMERY CO.
January	27,776.33		7,565.29	5,508.01	7,770.51	3,557.14
February	25,210.51		9,034.63	2,353.88	8,266.96	4,806.69
March	30,500.55		92.24	3,516.89	10,574.90	4,162.92
April	30,980.94			9,327.03	9,860.33	3,132.81
May	30,831.24			6,351.83	9,855.42	3,245.05
June	32,581.60			13,068.77	11,531.10	5,703.98
July	36,927.28			5,584.50	11,254.36	5,619.50
August	37,632.44			262.67	12,390.33	4,755.28
September	35,424.58			433.30	12,112.12	4,212.43
October	31,877.46			287.55	11,609.62	3,904.00
November	30,900.63			599.20	11,113.06	4,686.81
December	30,913.89			1,035.03	10,102.53	4,241.38
<b>Total</b>	<b>381,557.45</b>		<b>16,692.16</b>	<b>48,328.66</b>	<b>126,441.24</b>	<b>52,027.99</b>

**2005**

MONTH	DELAWARE CO. ASH	MONTGOMERY CO. ASH	NJ ASH	DEL. CO.	BERKS	MONTGOMERY CO.	CHESTER COUNTY
January	26,145.00	9,540.73		4,659.55	8,295.59	3,499.54	
February	26,535.20	8,800.56		3,287.19	7,402.73	3,435.91	
March	31,014.83	11,853.99		3,311.89	8,903.57	4,070.66	
April	29,241.02	7,148.79		6,175.43	10,120.51	6,600.16	
May	32,383.36	10,281.21		4,525.42	9,675.32	5,562.46	
June	33,296.77	10,881.84	1,950.21	290.61	10,575.29	6,850.50	
July	30,588.76	10,271.70	4,973.41	170.65	9,416.20	6,364.64	
August	31,440.29	11,263.56	10,227.09	84.02	9,872.01	5,527.44	
September	29,336.25	10,138.45	11,982.42		9,261.15	4,513.60	388.57
October	26,494.51	9,291.33	12,410.24	5.61	9,544.90	6,455.28	2,301.30
November	30,007.66	9,897.20	8,524.83	140.20	9,208.86	6,085.98	2,273.16
December	29,337.85	9,641.74	5,612.17	163.47	8,307.54	5,389.70	2,287.13
<b>Total</b>	<b>355,821.50</b>	<b>119,011.10</b>	<b>55,680.37</b>	<b>22,814.04</b>	<b>110,583.67</b>	<b>64,355.87</b>	<b>7,250.16</b>

SOURCE:  
+ Delaware County Solid Waste Authority  
Revised: April, 2013

**TABLE 2-3 +  
ROLLING HILLS LANDFILL BREAKDOWN  
2004 – 2012**

**2004 - 2012 WASTE ACCEPTED**

**2006**

MONTH	DELAWARE CO. ASH	MONTGOMERY CO. ASH	NJ ASH	DEL. CO.	BERKS	MONTGOMERY CO.	CHESTER COUNTY
January	29,087.47	9,115.46	7,408.14	223.88	9,359.86	5,499.16	2,449.99
February	25,700.21	8,615.45	9,911.65	256.18	7,861.97	4,788.66	1,714.72
March	27,870.12	6,345.40	11,356.21	240.89	9,289.47	5,574.40	2,264.70
April	30,308.13	9,537.92	8,981.06	101.45	8,830.39	5,229.78	2,005.09
May	34,704.98	10,337.82	10,593.21	74.10	10,282.41	5,478.26	2,262.05
June	32,795.18	10,605.18	10,016.42	17.06	10,263.83	5,631.16	2,332.30
July	31,542.37	8,890.00	9,587.41	254.45	9,760.79	5,013.32	2,015.72
August	31,893.79	11,130.25	7,470.00	101.92	10,329.76	5,344.22	2,317.51
September	29,561.78	8,859.18	5,246.87	271.63	9,517.21	4,849.92	2,013.21
October	28,048.82	9,864.34	4,129.78	73.95	9,449.20	4,962.08	2,433.33
November	30,099.81	9,256.61	5,973.36	180.52	8,881.55	4,719.93	2,388.09
December	30,610.06	9,318.64	11,807.01	60.41	8,025.07	3,992.95	2,098.29
<b>Total</b>	<b>362,222.72</b>	<b>111,876.25</b>	<b>102,481.12</b>	<b>1,856.44</b>	<b>111,851.51</b>	<b>61,083.84</b>	<b>26,295.00</b>

**2007**

MONTH	DELAWARE CO. ASH	MONTGOMERY CO. ASH	NJ ASH	DEL. CO.	BERKS	MONTGOMERY CO.	CHESTER COUNTY
January	28,777.24	9,939.71	2,981.64	118.48	8,221.06	4,473.07	2,031.97
February	25,348.92	8,640.37	2,474.81	65.89	6,231.93	3,007.77	1,239.79
March	30,049.49	9,230.44	4,301.36	142.32	8,403.87	2,780.29	1,742.35
April	31,083.86	8,631.16	7,569.01	202.41	9,168.63	2,654.46	1,764.38
May	33,175.19	10,941.67	10,719.07	146.51	9,686.14	3,356.14	1,783.19
June	29,576.76	6,873.49	7,957.19	151.39	8,026.51	3,380.17	1,662.06
July	29,285.22	10,404.76	8,588.43	228.43	8,001.36	3,060.97	1,372.99
August	30,660.46	10,682.95	8,678.02	234.03	8,797.38	2,710.37	1,380.82
September	25,527.64	9,577.77	13,740.13	120.74	7,414.36	2,165.13	1,101.17
October	29,282.36	10,767.89	20,522.69	86.47	9,218.91	2,685.83	1,194.56
November	28,861.76	9,346.47	7,904.11	175.83	7,866.78	2,500.24	1,190.61
December	29,487.36	9,594.93	4,668.22	144.90	7,239.07	2,119.09	1,030.70
<b>Total</b>	<b>351,116.26</b>	<b>114,631.61</b>	<b>100,104.68</b>	<b>1,817.40</b>	<b>98,276.00</b>	<b>34,893.53</b>	<b>17,494.59</b>

SOURCE:  
+ Delaware County Solid Waste Authority  
Revised: April, 2013

**TABLE 2-3 +  
ROLLING HILLS LANDFILL BREAKDOWN  
2004 – 2012**

**2004 - 2012 WASTE ACCEPTED**

**2008**

MONTH	DELAWARE CO. ASH	MONTGOMERY CO. ASH	NJ ASH	DEL. CO.	BERKS	MONTGOMERY CO.	CHESTER COUNTY
January	27,990.92	8,144.95	6,199.26	85.40	7,785.82	2,259.93	920.97
February	26,794.50	8,144.89	6,448.05	188.24	6,940.65	1,967.38	812.20
March	30,223.92	9,318.68	7,353.45	117.79	7,139.04	2,116.34	853.54
April	35,425.22	10,956.12	6,533.06	121.87	7,019.96	2,418.64	808.81
May	35,498.98	10,437.71	6,107.10	173.77	6,944.59	2,219.46	940.88
June	34,000.83	10,261.27	8,359.63	66.08	6,895.93	2,195.28	862.99
July	35,265.06	10,362.17	11,185.36	135.79	7,681.85	2,421.06	884.37
August	33,553.03	9,555.66	12,747.23	133.36	7,267.09	2,065.50	866.06
September	30,700.03	10,599.19	9,596.46	60.16	7,405.35	2,378.45	914.00
October	33,876.19	9,451.88	9,550.13	33.08	7,561.01	2,260.40	935.48
November	28,249.10	8,835.61	10,442.51	22.87	6,298.00	1,910.24	713.03
December	35,011.52	9,882.45	5,493.74	14.66	6,638.75	2,086.77	821.52
<b>Total</b>	<b>386,589.30</b>	<b>115,950.58</b>	<b>100,015.98</b>	<b>1,153.07</b>	<b>85,578.04</b>	<b>26,299.45</b>	<b>10,333.85</b>

**2009**

MONTH	DELAWARE CO. ASH	MONTGOMERY CO. ASH	NJ ASH	DEL. CO.	BERKS	MONTGOMERY CO.	CHESTER COUNTY
January	27,521.58	8,251.06	1,144.33	130.01	5,789.65	1,803.65	673.45
February	30,139.89	6,522.66		91.24	5,492.16	1,615.54	672.70
March	33,545.57	9,394.53		122.26	6,795.21	2,031.57	716.77
April	36,333.51	10,138.86		224.52	6,967.82	1,904.56	719.62
May	37,657.95	9,439.85		163.38	7,025.71	1,965.77	895.30
June	37,090.01	10,578.20		92.54	7,665.62	2,030.38	944.64
July	40,969.43	11,051.24		284.11	7,537.15	2,044.19	843.05
August	37,523.59	9,601.82		168.42	7,320.64	2,027.20	896.75
September	37,355.89	10,597.16		243.10	7,829.88	1,943.28	870.60
October	33,939.19	8,024.61		38.16	6,827.89	1,966.15	844.87
November	31,112.43	9,637.96		86.80	6,409.65	1,622.04	840.60
December	35,755.91	9,121.10		41.75	8,334.27	1,802.92	753.84
<b>Total</b>	<b>418,944.95</b>	<b>112,359.05</b>	<b>1,144.33</b>	<b>1,686.29</b>	<b>83,995.65</b>	<b>22,757.25</b>	<b>9,672.19</b>

SOURCE:  
+ Delaware County Solid Waste Authority  
Revised: April, 2013

**TABLE 2-3 +  
ROLLING HILLS LANDFILL BREAKDOWN  
2004 – 2012**

**2004 - 2012 WASTE ACCEPTED**

MONTH	DELAWARE CO. ASH	MONTGOMERY CO. ASH	NJ ASH	BERKS-ASH	DEL. CO.	BERKS	MONTGOMERY CO.	CHESTER COUNTY
January	27,135.70	8,904.78		2,385.53	47.85	5,395.34	1,533.19	588.78
February	25,544.24	6,438.75		1,619.54		4,917.90	1,270.90	487.10
March	33,625.84	9,483.04		2,654.77	26.76	7,251.12	1,785.20	693.69
April	34,237.52	9,528.90	4,354.03	2,432.30	53.73	7,171.50	1,781.23	697.51
May	32,672.93	9,207.84	4,817.06	1,842.65	118.16	6,752.58	1,670.19	662.64
June	34,833.08	10,480.98	3,554.53	2,180.08	162.46	7,719.57	1,812.95	731.85
July	33,556.05	10,409.10	2,523.57	2,880.22	133.97	6,582.10	1,554.11	718.44
August	32,192.86	9,328.52	3,920.03	5,709.57	159.80	6,761.14	1,839.34	792.45
September	32,440.32	8,350.29	6,066.16	4,034.08		6,905.60	1,595.01	627.39
October	29,619.16	7,511.46	6,919.41	4,362.48	265.72	6,952.42	1,756.01	610.16
November	32,810.08	9,495.56	6,916.97	5,211.11	176.01	6,193.06	1,728.15	592.59
December	31,991.82	8,983.05	4,798.86	5,879.89	49.76	5,995.31	1,646.31	627.43
Total	380,659.60	108,122.27	43,870.62	41,212.22	1,194.22	78,597.64	19,992.59	7,830.03

**2010**

**2011**

MONTH	DELAWARE CO. ASH	MONTGOMERY CO. ASH	NJ ASH	BERKS-ASH	NJ SOIL	DEL. CO.	BERKS	MONTGOMERY CO.
January	19,001.33	8,608.99	3,768.68	3,319.72		46.18	5,053.47	1,334.35
February	27,199.47	6,558.38	4,445.99	4,389.06		34.42	4,912.46	1,381.64
March	33,435.45	8,444.79	3,358.94	5,043.50			6,693.17	1,717.51
April	32,883.90	9,497.50	21.89	2,347.69	1,692.58	134.62	5,927.93	1,528.52
May	35,417.76	9,959.41	0.00	5,064.16	5,025.66	13.52	7,240.91	1,542.73
June	35,716.00	10,470.75	0.00	3,990.63	5,369.10	38.72	6,957.45	1,646.55
July	33,114.26	8,941.15	0.00	1,198.37	4,437.87	77.89	5,953.35	1,291.06
August	34,538.07	10,699.60	0.00	3,024.18	2,641.57	132.47	7,108.10	1,614.59
September	31,198.29	9,231.86	0.00	2,732.95	1,712.79	0.00	7,261.95	1,549.40
October	31,585.75	8,915.53	0.00	3,258.97	2,070.45	32.14	6,736.93	1,430.69
November	29,545.06	9,750.55	0.00	2,999.33	445.27	32.07	6,733.94	1,361.60
December	32,552.67	7,430.62	0.00	3,839.96	0.00	112.12	6,251.59	1,234.00
Total	376,188.01	108,509.13	11,595.50	41,118.52	23,395.29	654.15	76,831.25	17,632.64

SOURCE:  
+ Delaware County Solid Waste Authority  
Revised: April, 2013

**TABLE 2-3 +  
ROLLING HILLS LANDFILL BREAKDOWN  
2004 – 2012**

**2004 - 2012 WASTE ACCEPTED**

**2012**

MONTH	DELAWARE CO. ASH	MONTGOMERY CO. ASH	BERKS - ASH	NJ SOIL	NJ C&D	DEL. CO.	BERKS	MONTGOMERY CO.	CHESTER CO.
January	30,253.95	10,022.15	2,933.11	212.99	0.00	32.80	4,878.04	1,117.73	572.94
February	26,062.35	7,715.32	4,027.53		0.00	0.00	5,062.53	1,250.67	485.47
March	30,986.42	8,233.14	3,783.53		430.03	0.00	6,133.98	1,299.90	601.69
April	30,613.78	10,034.45	2,683.97		2,969.58	65.71	5,635.41	1,211.91	644.25
May	32,586.08	9,953.39	2,878.61	6,218.04	4,476.88	48.33	6,671.73	1,507.36	785.19
June	31,968.75	9,369.29	2,559.97		5,541.19	15.97	6,278.76	1,500.73	683.40
July	31,449.61	9,280.02	3,348.89		6,171.15	120.61	5,844.44	1,344.74	586.97
August	31,734.28	9,771.88	3,035.06		6,316.02	90.37	6,425.82	1,548.35	730.08
September	29,728.59	8,429.12	1,469.82		4,973.12	0.00	5,745.20	1,223.76	575.53
October	31,929.05	7,876.84	3,365.02		5,100.73	91.02	6,443.87	1,452.03	645.92
November	30,600.71	8,704.90	2,385.60		8,647.41	81.47	6,273.10	1,471.89	605.53
December	31,037.09	9,812.22	2,591.71		11,486.37	17.43	5,742.96	1,334.63	562.25
Total	368,950.66	109,202.72	35,062.82	6,431.03	56,112.48	563.71	71,135.84	16,263.70	7,479.22

SOURCE:  
+ Delaware County Solid Waste Authority  
Revised: April, 2013



**TABLE 3-1\***

**TABLE 3-1\*  
DELAWARE COUNTY PROJECTED RESIDENTIAL  
SOLID WASTE GENERATION FOR 2015, 2020, AND 2025**

Municipality	2015		2015		2020		2020		2025		2025	
	Population Projections <sup>a</sup>	TOTAL WASTE Generation Projections <sup>a,a</sup> (Tons)	Recycled Material Projections <sup>1</sup> (Tons)	Non-Recycled Waste (Trash) Projections (Tons)	Population Projections <sup>a</sup>	TOTAL WASTE Generation Projections <sup>a,a</sup> (Tons)	Recycled Material Projections <sup>1</sup> (Tons)	Non-Recycled Waste (Trash) Projections (Tons)	Population Projections <sup>a</sup>	TOTAL WASTE Generation Projections <sup>a,a</sup> (Tons)	Recycled Material Projections <sup>1</sup> (Tons)	Non-Recycled Waste (Trash) Projections (Tons)
Aldan Borough	4,153	3,322	1,063	2,259	4,156	3,325	1,064	2,261	4,163	3,330	1,066	2,264
Aston Borough	16,610	13,288	4,651	8,637	16,663	13,330	4,666	8,664	16,786	13,429	4,700	8,729
Bethel Township	8,830	7,064	1,695	5,369	8,942	7,154	1,717	5,437	9,204	7,363	1,767	5,596
Brookhaven Borough	8,013	6,410	2,692	3,718	8,032	6,426	2,699	3,727	8,077	6,462	2,714	3,748
Chadds Ford Township	3,663	2,930	440	2,490	3,730	2,984	448	2,536	3,887	3,110	466	2,644
Chester City	33,984	27,187	7,884	19,303	34,018	27,214	7,892	19,322	34,097	27,278	7,911	19,367
Chester Heights Borough	2,533	2,026	1,398	628	2,540	2,032	1,402	630	2,556	2,045	1,411	634
Chester Township	3,945	3,156	821	2,335	3,960	3,168	824	2,344	3,994	3,195	831	2,364
Clifton Heights	6,651	5,321	1,383	3,938	6,649	5,319	1,383	3,936	6,643	5,314	1,382	3,932
Collingdale Borough	8,795	7,036	633	6,403	8,822	7,058	635	6,423	8,886	7,109	640	6,469
Colwyn Borough	2,551	2,041	204	1,837	2,566	2,053	205	1,848	2,600	2,080	208	1,872
Concord Township	17,336	13,869	7,628	6,241	17,635	14,108	7,759	6,349	18,338	14,670	8,069	6,601
Darby Borough	10,693	8,554	770	7,784	10,711	8,569	771	7,798	10,753	8,602	774	7,828
Darby Township	9,255	7,404	6,812	592	9,230	7,384	6,793	591	9,171	7,337	6,750	587
East Lansdowne Borough	2,667	2,134	448	1,686	2,665	2,132	448	1,684	2,661	2,129	447	1,682
Eddystone Borough	2,409	1,927	1,099	828	2,407	1,926	1,098	828	2,401	1,921	1,095	826
Edgmont Township	4,020	3,216	4,020	1,061	4,112	3,290	2,204	1,086	4,330	3,464	2,321	1,143
Folcroft Borough	6,598	5,278	2,322	2,956	6,573	5,258	2,314	2,944	6,517	5,214	2,294	2,920
Glenolden Borough	7,151	5,721	1,888	3,833	7,144	5,715	1,886	3,829	7,130	5,704	1,882	3,822
Haverford Township	48,495	38,796	16,682	22,114	48,508	38,806	16,687	22,119	48,538	38,830	16,697	22,133
Lansdowne Borough	10,613	8,490	3,057	5,433	10,593	8,474	3,051	5,423	10,545	8,436	3,037	5,399
Lower Chester Township	3,468	2,774	583	2,191	3,466	2,773	582	2,191	3,459	2,767	581	2,186
Marcus Hook Borough	2,399	1,919	921	998	2,405	1,924	924	1,000	2,418	1,934	929	1,005
Maple Township	23,416	18,733	8,242	10,491	23,382	18,706	8,230	10,476	23,301	18,641	8,202	10,439
Media Borough	5,332	4,266	2,986	1,280	5,347	4,278	2,994	1,284	5,383	4,306	3,014	1,292
Middletown Township	15,838	12,670	4,941	7,729	15,925	12,740	4,969	7,771	16,129	12,903	5,032	7,871
Millbourne Borough	1,162	930	28	902	1,170	936	28	908	1,189	951	29	922
Morton Borough	2,669	2,135	769	1,366	2,670	2,136	769	1,367	2,672	2,138	770	1,368
Nether Providence Township	13,713	10,970	4,827	6,143	13,733	10,986	4,834	6,152	13,780	11,024	4,851	6,173
Newtown Township	12,227	9,782	4,891	4,891	12,257	9,806	4,903	4,903	12,327	9,862	4,931	4,931
Norwood Borough	5,888	4,710	754	3,956	5,884	4,707	753	3,954	5,874	4,699	752	3,947
Parkside Borough	2,329	1,863	149	1,714	2,333	1,866	149	1,717	2,343	1,874	150	1,724
Prospect Park Borough	6,456	5,165	1,394	3,771	6,461	5,169	1,396	3,773	6,472	5,178	1,398	3,780
Radnor Township	31,547	25,238	15,143	10,095	31,594	25,275	15,165	10,110	31,703	25,362	15,217	10,145
Ridley Park Borough	7,004	5,603	2,073	3,530	7,008	5,606	2,074	3,532	7,020	5,616	2,078	3,538
Ridley Township	30,754	24,603	9,349	15,254	30,716	24,573	9,338	15,235	30,625	24,500	9,310	15,190
Rose Valley Borough	917	734	646	88	930	744	655	89	959	767	675	92
Rutledge Borough	784	627	82	545	784	627	82	545	783	626	81	545
Sharon Hill Borough	5,699	4,559	1,368	3,191	5,704	4,563	1,369	3,194	5,717	4,574	1,372	3,202
Springfield Township	24,239	19,391	8,144	11,247	24,318	19,454	8,171	11,283	24,504	19,603	8,233	11,370
Swarthmore Borough	6,197	4,958	3,272	1,686	6,206	4,965	3,277	1,688	6,226	4,981	3,287	1,694
Thornbury Township	8,066	6,453	968	5,485	8,173	6,538	981	5,557	8,427	6,742	1,011	5,731
	<b>2015</b>	<b>2015</b>	<b>2015</b>	<b>2015</b>	<b>2020</b>	<b>2020</b>	<b>2020</b>	<b>2020</b>	<b>2025</b>	<b>2025</b>	<b>2025</b>	<b>2025</b>

**TABLE 3-1\***

**TABLE 3-1+  
DELAWARE COUNTY PROJECTED RESIDENTIAL  
SOLID WASTE GENERATION FOR 2015, 2020, AND 2025**

Municipality	2015		2015		2020		2020		2025		2025	
	Population Projections*	TOTAL WASTE Generation Projections** (Tons)	Recycled Material Projections <sup>1</sup> (Tons)	Non-Recycled Waste (Trash) Projections (Tons)	Population Projections*	TOTAL WASTE Generation Projections** (Tons)	Recycled Material Projections <sup>1</sup> (Tons)	Non-Recycled Waste (Trash) Projections (Tons)	Population Projections*	TOTAL WASTE Generation Projections** (Tons)	Recycled Material Projections <sup>1</sup> (Tons)	Non-Recycled Waste (Trash) Projections (Tons)
Tinicum Township	4,088	3,270	752	2,518	4,078	3,262	750	2,512	4,055	3,244	746	2,498
Trainer Borough	1,823	1,458	146	1,312	1,810	1,448	145	1,303	1,777	1,422	142	1,280
Upland Borough	3,239	2,591	907	1,684	3,237	2,590	906	1,684	3,234	2,587	906	1,681
Upper Chichester Township	16,764	13,411	4,426	8,985	16,839	13,471	4,445	9,026	17,014	13,611	4,492	9,119
Upper Darby Township	82,916	66,333	17,910	48,423	83,262	66,610	17,985	48,625	84,074	67,259	18,160	49,099
Upper Providence Township	101,647	81,318	22,769	58,549	10,240	8,192	2,294	5,898	10,411	8,329	2,332	5,997
Yeadon Borough	11,432	9,146	1,555	7,591	11,401	9,121	1,551	7,570	11,329	9,063	1,541	7,522
<b>Projected Totals</b>	<b>2015 Population</b>	<b>2015 Total (tons)</b>	<b>2015 Recycled Material<sup>1</sup> (tons)</b>	<b>2015 Trash Material (tons)</b>	<b>2020 Population</b>	<b>2020 Total (tons)</b>	<b>2020 Recycled Material<sup>1</sup> (tons)</b>	<b>2020 Trash Material (tons)</b>	<b>2025 Population</b>	<b>2025 Total (tons)</b>	<b>2025 Recycled Material<sup>1</sup> (tons)</b>	<b>2025 Trash Material (tons)</b>
	556,117	444,894	134,777	310,117	556,979	445,583	134,983	310,601	557,795	446,236	135,177	311,059

\* Source: Analytical Data Report: Regional, County, and Municipal Population Forecasts, 2010-2040 (DVRPC, 2012). Retrieved from <http://www.dvrpc.org/reports/ADR018.pdf>.

\*\* Source: Pennsylvania Department of Environmental Protection (PA DEP). Calculated by using the annual per capita municipal waste stream generation rate (at 0.8 tons per person per year).

<sup>1</sup> All recycled-material projections are calculated from the percentages shown and may differ from real-world values. Non-residential sources of recycled-material may skew projections slightly.

**Equations**

TOTAL WASTE GENERATION PROJECTIONS x PERCENT OF TOTAL WASTE RECYCLED = RECYCLED MATERIAL PROJECTIONS

TOTAL WASTE GENERATION PROJECTIONS - RECYCLED MATERIAL PROJECTIONS = NON-RECYCLED WASTE (TRASH) PROJECTIONS



**TABLE 3-2**  
**2004**  
**MUNICIPAL SOLID WASTE and RECYCLING TOTALS +**

MUNICIPALITIES	TOTAL RECYCLING	MSW	TRASH + RECYCLING	RECYCLING RATE
ALDAN	585.40	2,712.73	3,298.13	18%
ASTON	2,193.01	8,073.72	10,266.73	21%
BETHEL	288.63	3,442.23	3,730.86	8%
BROOKHAVEN	1,595.91	3,449.90	5,045.81	32%
CHADDS FORD	271.92	1,818.63	2,090.55	13%
CHESTER CITY	2,872.80	12,148.10	15,020.90	19%
CHESTER HEIGHTS	3.55	1,423.35	1,426.90	0%
CHESTER TOWNSHIP	144.67	2,160.92	2,305.59	6%
CLIFTON HEIGHTS	1,486.56	3,514.38	5,000.94	30%
COLLINGDALE	280.63	4,477.32	4,757.95	6%
COLWYN	1.50	866.16	867.66	0%
CONCORD	1,119.40	5,782.83	6,902.23	16%
DARBY BOR.	2,285.64	4,803.12	7,088.76	32%
DARBY TOWNSHIP	1,585.02	6,352.10	7,937.12	20%
EAST LANSDOWNE	31.15	1,623.42	1,654.57	2%
EDDYSTONE	2,262.21	1,345.57	3,607.78	63%
EDGMONT	1,007.28	2,247.76	3,255.04	31%
FOLCROFT	1,418.75	3,972.23	5,390.98	26%
GLENOLDEN	1,151.54	3,512.49	4,664.03	25%
HAVERFORD	12,763.00	24,453.93	37,216.93	34%
LANSDOWNE	1,344.79	5,238.66	6,583.45	20%
LOWER CHICHESTER	22.73	2,101.42	2,124.15	1%
MARCUS HOOK	5,124.77	1,243.10	6,367.87	80%
MARPLE TWP.	6,012.09	12,174.10	18,186.19	33%
MEDIA	1,379.39	1,991.39	3,370.78	41%
MIDDLETOWN	3,701.70	9,216.13	12,917.83	29%
MILLBOURNE	0.50	731.49	731.99	0%
MORTON	113.77	1,317.55	1,431.32	8%
NETHER PROVIDENCE	3,393.07	7,883.98	11,277.05	30%
NEWTOWN	4,268.81	6,908.32	11,177.13	38%
NORWOOD	421.35	3,373.81	3,795.16	11%
PARKSIDE	16.19	1,241.14	1,257.33	1%
PROSPECT PARK	659.06	3,435.99	4,095.05	16%
RADNOR TWP.	9,755.06	11,069.29	20,824.35	47%
RIDLEY PARK	1,062.98	3,460.81	4,523.79	23%
RIDLEY TWP.	8,209.30	18,293.65	26,502.95	31%
ROSE VALLEY	70.17	541.57	611.74	11%
RUTLEDGE	53.77	634.67	688.44	8%
SHARON HILL	2,862.26	2,931.97	5,794.23	49%
SPRINGFIELD	9,079.86	13,324.04	22,403.90	41%
SWARTHMORE	5,307.68	2,046.50	7,354.18	72%
THORNBURY	141.08	4,098.31	4,239.39	3%
TINICUM	5,075.41	2,940.56	8,015.97	63%
TRAINER	58.24	1,206.84	1,265.08	5%
UPLAND BOROUGH	996.55	1,500.15	2,496.70	40%
UPPER CHICHESTER	4,931.37	7,967.69	12,899.06	38%
UPPER DARBY	8,173.30	42,157.83	50,331.13	16%
UPPER PROVIDENCE	877.92	4,944.50	5,822.42	15%
YEADON	3,311.68	4,470.27	7,781.95	43%
<b>MUNICIPAL TOTALS</b>	<b>119,773.42</b>	<b>276,626.62</b>	<b>396,400.04</b>	
TOTALS NOT ATTRIBUTED TO A PARTICULAR MUNICIPALITY	60,810.84			
<b>OVERALL COUNTY TOTALS</b>	<b>180,584.26</b>	<b>276,626.62</b>	<b>457,210.88</b>	
<b>Population ~ 550,864</b>		<b>Overall County's Percentage Rate:</b>	<b>39%</b>	

SOURCE:

+ Delaware County Solid Waste Authority

**TABLE 3-2  
2005  
MUNICIPAL SOLID WASTE and RECYCLING TOTALS +**

MUNICIPALITIES	TOTAL RECYCLING	MSW	TRASH + RECYCLING	RECYCLING RATE
ALDAN	904.09	2,704.16	3,608.25	25%
ASTON	2,464.83	7,643.91	10,108.74	24%
BETHEL	222.60	3,396.81	3,619.41	6%
BROOKHAVEN	1,807.73	3,334.71	5,142.44	35%
CHADDS FORD	413.98	1,825.20	2,239.18	18%
CHESTER CITY	3,176.68	12,145.78	15,322.46	21%
CHESTER HEIGHTS	4.05	1,428.49	1,432.54	0%
CHESTER TOWNSHIP	94.53	2,119.61	2,214.14	4%
CLIFTON HEIGHTS	1,183.98	3,488.54	4,672.52	25%
COLLINGDALE	235.53	4,403.60	4,639.13	5%
COLWYN	0.44	1,412.37	1,412.81	0%
CONCORD	1,220.49	5,719.15	6,939.64	18%
DARBY BOR.	2,275.38	4,971.83	7,247.21	31%
DARBY TOWNSHIP	1,273.89	5,691.48	6,965.37	18%
EAST LANSDOWNE	125.11	1,320.36	1,445.47	9%
EDDYSTONE	794.65	1,296.71	2,091.36	38%
EDGMONT	989.80	2,255.88	3,245.68	30%
FOLCROFT	1,911.44	7,970.05	9,881.49	19%
GLENOLDEN	887.13	3,191.54	4,078.67	22%
HAVERFORD	29,672.84	23,442.02	53,114.86	56%
LANSDOWNE	1,225.90	5,119.25	6,345.15	19%
LOWER CHICHESTER	43.35	2,002.04	2,045.39	2%
MARCUS HOOK	238.51	1,240.97	1,479.48	16%
MARPLE TWP.	5,143.68	11,767.20	16,910.88	30%
MEDIA	2,805.97	1,786.15	4,592.12	61%
MIDDLETOWN	2,382.63	9,249.22	11,631.85	20%
MILLBOURNE		542.95	542.95	0%
MORTON	335.97	1,569.30	1,905.27	18%
NETHER PROVIDENCE	2,956.06	7,747.60	10,703.66	28%
NEWTOWN	5,734.01	6,736.55	12,470.56	46%
NORWOOD	322.01	3,159.89	3,481.90	9%
PARKSIDE	83.78	1,237.19	1,320.97	6%
PROSPECT PARK	244.42	3,279.72	3,524.14	7%
RADNOR TWP.	9,919.22	10,819.33	20,738.55	48%
RIDLEY PARK	1,132.74	3,360.39	4,493.13	25%
RIDLEY TWP.	9,349.64	17,863.16	27,212.80	34%
ROSE VALLEY	77.21	543.53	620.74	12%
RUTLEDGE	47.78	500.41	548.19	9%
SHARON HILL	1,203.08	2,909.50	4,112.58	29%
SPRINGFIELD	10,971.46	13,040.16	24,011.62	46%
SWARTHMORE	3,704.36	2,024.06	5,728.42	65%
THORNBURY	156.84	4,083.96	4,240.80	4%
TINICUM	263.03	2,866.16	3,129.19	8%
TRAINER	67.90	1,375.44	1,443.34	5%
UPLAND BOROUGH	975.51	1,506.73	2,482.24	39%
UPPER CHICHESTER	3,346.50	7,577.29	10,923.79	31%
UPPER DARBY	10,093.90	40,699.86	50,793.76	20%
UPPER PROVIDENCE	900.00	4,480.68	5,380.68	17%
YEADON	802.09	4,230.36	5,032.45	16%
<b>MUNICIPAL TOTALS</b>	<b>124,186.72</b>	<b>273,081.25</b>	<b>397,267.97</b>	
TOTALS NOT ATTRIBUTED TO A PARTICULAR MUNICIPALITY	59,536.58			
<b>OVERALL COUNTY TOTALS</b>	<b>183,723.30</b>	<b>273,081.25</b>	<b>456,804.55</b>	
<b>Population ~ 550,864</b>	<b>Overall County's Percentage Rate:</b>		<b>40%</b>	

SOURCE:

+ Delaware County Solid Waste Authority

**TABLE 3-2**  
**2006**  
**MUNICIPAL SOLID WASTE and RECYCLING TOTALS +**

MUNICIPALITIES	TOTAL RECYCLING	MSW	TRASH + RECYCLING	RECYCLING RATE
ALDAN	781.79	2,656.13	3,437.92	23%
ASTON	2,773.45	7,938.35	10,711.80	26%
BETHEL	474.18	3,753.39	4,227.57	11%
BROOKHAVEN	1,595.45	3,671.72	5,267.17	30%
CHADDS FORD	405.38	1,799.58	2,204.96	18%
CHESTER CITY	15,846.22	12,564.13	28,410.35	56%
CHESTER HEIGHTS	110.60	1,408.44	1,519.04	7%
CHESTER TOWNSHIP	53.55	2,064.23	2,117.78	3%
CLIFTON HEIGHTS	719.43	3,503.47	4,222.90	17%
COLLINGDALE	259.89	4,470.84	4,730.73	5%
COLWYN	1.82	1,410.16	1,411.98	0%
CONCORD	1,305.41	5,746.42	7,051.83	19%
DARBY BOR.	2,318.15	4,582.67	6,900.82	34%
DARBY TOWNSHIP	2,990.67	5,889.56	8,880.23	34%
EAST LANSDOWNE	176.12	1,532.02	1,708.14	10%
EDDYSTONE	2,716.50	1,298.00	4,014.50	68%
EDGMONT	1,237.92	2,224.21	3,462.13	36%
FOLCROFT	941.91	3,813.52	4,755.43	20%
GLENOLDEN	437.46	3,468.87	3,906.33	11%
HAVERFORD	10,022.80	23,729.27	33,752.07	30%
LANSDOWNE	1,113.93	5,334.69	6,448.62	17%
LOWER CHICHESTER	29.64	2,085.82	2,115.46	1%
MARCUS HOOK	1,621.88	1,360.59	2,982.47	54%
MARPLE TWP.	4,294.91	12,151.84	16,446.75	26%
MEDIA	1,824.29	1,805.19	3,629.48	50%
MIDDLETOWN	3,637.69	9,122.25	12,759.94	29%
MILLBOURNE	0.20	629.49	629.69	0%
MORTON	95.49	1,464.83	1,560.32	6%
NETHER PROVIDENCE	2,685.74	7,794.97	10,480.71	26%
NEWTOWN	4,751.16	6,986.42	11,737.58	40%
NORWOOD	653.87	3,030.46	3,684.33	18%
PARKSIDE	63.04	1,288.11	1,351.15	5%
PROSPECT PARK	276.03	3,333.62	3,609.65	8%
RADNOR TWP.	8,445.01	10,973.19	19,418.20	43%
RIDLEY PARK	1,299.48	3,447.99	4,747.47	27%
RIDLEY TWP.	3,387.98	19,024.24	22,412.22	15%
ROSE VALLEY	80.88	535.90	616.78	13%
RUTLEDGE	231.69	573.65	805.34	29%
SHARON HILL	895.64	3,182.17	4,077.81	22%
SPRINGFIELD	6,824.84	13,263.30	20,088.14	34%
SWARTHMORE	2,827.05	2,068.98	4,896.03	58%
THORNBURY	168.51	4,026.63	4,195.14	4%
TINICUM	667.62	2,987.77	3,655.39	18%
TRAINER	60.88	1,368.73	1,429.61	4%
UPLAND BOROUGH	637.58	1,606.31	2,243.89	28%
UPPER CHICHESTER	4,140.34	7,821.75	11,962.09	35%
UPPER DARBY	10,370.72	41,309.66	51,680.38	20%
UPPER PROVIDENCE	1,194.82	4,748.61	5,943.43	20%
YEADON	3,024.27	4,358.57	7,382.84	41%
<b>MUNICIPAL TOTALS</b>	<b>110,473.88</b>	<b>275,210.71</b>	<b>385,684.59</b>	
TOTALS NOT ATTRIBUTED TO A PARTICULAR MUNICIPALITY	60,633.57			
<b>OVERALL COUNTY TOTALS</b>	<b>171,107.45</b>	<b>275,210.71</b>	<b>446,318.16</b>	
<b>Population ~ 550,864</b>		<b>Overall County's Percentage Rate:</b>	<b>38%</b>	

SOURCE:

+ Delaware County Solid Waste Authority



**TABLE 3-2**  
**2007**  
**MUNICIPAL WASTE and RECYCLING TOTALS+**

MUNICIPALITIES	POPULATION	TOTAL RECYCLING	MSW	TRASH + RECYCLING	RECYCLING RATE
ALDAN	4,313	621.23	2,464.41	3,085.64	20%
ASTON	16,203	2,819.40	7,580.94	10,400.34	27%
BETHEL	6,421	955.46	3,695.36	4,650.82	21%
BROOKHAVEN	7,985	1,690.34	3,230.73	4,921.07	34%
CHADDS FORD	3,170	450.37	1,767.56	2,217.93	20%
CHESTER CITY	36,854	8,593.01	13,121.02	21,714.03	40%
CHESTER HEIGHTS	2,481	5.05	1,383.38	1,388.43	0%
CHESTER TOWNSHIP	4,604	62.54	1,816.66	1,879.20	3%
CLIFTON HEIGHTS	6,779	290.94	3,307.15	3,598.09	8%
COLLINGDALE	8,664	200.25	4,291.47	4,491.72	4%
COLWYN	2,453	14.46	678.33	692.79	2%
CONCORD	9,933	1,997.87	5,564.72	7,562.59	26%
DARBY BOR.	10,299	1,972.32	4,549.41	6,521.73	30%
DARBY TOWNSHIP	9,622	1,402.40	5,286.52	6,688.92	21%
EAST LANSDOWNE	2,586	117.39	1,351.90	1,469.29	8%
EDDYSTONE	2,442	959.43	1,270.34	2,229.77	43%
EDGMONT	3,918	1,233.86	2,184.64	3,418.50	36%
FOLCROFT	6,978	1,542.63	3,430.54	4,973.17	31%
GLENOLDEN	7,476	1,284.13	3,204.00	4,488.13	29%
HAVERFORD	48,498	10,543.31	22,735.51	33,278.82	32%
LANSDOWNE	11,044	1,386.75	4,842.92	6,229.67	22%
LOWER CHICHESTER	3,591	251.81	2,025.04	2,276.85	11%
MARCUS HOOK	2,314	69.24	1,310.26	1,379.50	5%
MARPLE TWP.	23,737	8,042.38	11,691.20	19,733.58	41%
MEDIA	5,533	2,134.51	1,754.19	3,888.70	55%
MIDDLETOWN	16,064	2,963.93	8,957.59	11,921.52	25%
MILLBOURNE	943	-	253.48	253.48	0%
MORTON	2,715	268.58	1,368.59	1,637.17	16%
NETHER PROVIDENCE	13,456	3,009.96	7,625.98	10,635.94	28%
NEWTOWN	11,700	4,998.77	6,747.61	11,746.38	43%
NORWOOD	5,985	424.74	3,324.47	3,749.21	11%
PARKSIDE	2,267	73.77	1,358.81	1,432.58	5%
PROSPECT PARK	6,594	235.40	3,227.17	3,462.57	7%
RADNOR TWP.	30,878	9,829.83	10,340.90	20,170.73	49%
RIDLEY TWP.	30,791	3,661.06	17,605.32	21,266.38	17%
RIDLEY PARK	7,196	1,571.07	3,402.45	4,973.52	32%
ROSE VALLEY	944	77.98	526.36	604.34	13%
RUTLEDGE	860	254.25	573.51	827.76	31%
SHARON HILL	5,468	1,508.22	3,299.70	4,807.92	31%
SPRINGFIELD	23,677	8,509.01	12,565.39	21,074.40	40%
SWARTHMORE	6,170	2,384.71	2,005.32	4,390.03	54%
THORNBURY	7,093	164.39	3,954.99	4,119.38	4%
TINICUM	4,353	341.87	2,824.22	3,166.09	11%
TRAINER	1,901	0.17	1,183.92	1,184.09	0%
UPLAND BOROUGH	2,977	817.24	1,561.27	2,378.51	34%
UPPER CHICHESTER	16,842	7,584.81	7,599.35	15,184.16	50%
UPPER DARBY	81,821	9,903.73	39,589.00	49,492.73	20%
UPPER PROVIDENCE	10,509	1,013.79	4,808.70	5,822.49	17%
YEADON	11,762	883.38	4,200.98	5,084.36	17%
<b>MUNICIPAL TOTALS</b>	<b>550,864</b>	<b>109,121.74</b>	<b>263,443.28</b>	<b>372,565.02</b>	<b>29%</b>
TOTALS NOT ATTRIBUTED TO A PARTICULAR MUNICIPALITY		78,384.68	721.03		
<b>OVERALL COUNTY TOTALS</b>		<b>187,506.42</b>	<b>264,164.31</b>	<b>451,670.73</b>	
<b>Population ~ 550,864</b>		<b>Overall County's Percentage Recycling Rate</b>			<b>42%</b>

SOURCE:

+ Delaware County Solid Waste Authority

**TABLE 3-2**  
**2008**  
**MUNICIPAL SOLID WASTE and RECYCLING TOTALS +**

MUNICIPALITIES	TOTAL RECYCLING	MSW	Total MSW and Recycling	RECYCLING RATE
ALDAN	678.87	2,397.89	3,076.76	22%
ASTON	2,648.34	7,684.99	10,333.33	26%
BETHEL	507.21	3,479.11	3,986.32	13%
BROOKHAVEN	1,722.72	3,347.70	5,070.42	34%
CHADDS FORD	259.04	1,843.51	2,102.55	12%
CHESTER CITY	4,570.33	13,293.52	17,863.85	26%
CHESTER HEIGHTS	197.09	1,431.25	1,628.34	12%
CHESTER TOWNSHIP	453.77	2,011.54	2,465.31	18%
CLIFTON HEIGHTS	565.23	3,188.45	3,753.68	15%
COLLINGDALE	205.42	3,869.85	4,075.27	5%
COLWYN	33.13	535.04	568.17	6%
CONCORD	3,071.59	7,179.74	10,251.33	30%
DARBY BOR.	1,822.39	4,833.79	6,656.18	27%
DARBY TOWNSHIP	1,746.66	4,786.06	6,532.72	27%
EAST LANSDOWNE	123.76	1,079.60	1,203.36	10%
EDDYSTONE	2,163.36	1,238.55	3,401.91	64%
EDGMONT	2,155.63	1,541.36	3,696.99	58%
FOLCROFT	712.51	3,334.06	4,046.57	18%
GLENOLDEN	1,160.53	3,184.93	4,345.46	27%
HAVERFORD	9,677.35	21,912.61	31,589.96	31%
LANSDOWNE	1,408.59	4,617.96	6,026.55	23%
LOWER CHICHESTER	137.22	1,948.30	2,085.52	7%
MARCUS HOOK	1,690.50	1,133.47	2,823.97	60%
MARPLE TWP.	5,579.50	11,647.90	17,227.40	32%
MEDIA	1,591.20	1,316.24	2,907.44	55%
MIDDLETOWN	3,546.24	6,892.00	10,438.24	34%
MILLBOURNE	-	418.30	418.30	0%
MORTON	402.45	1,141.48	1,543.93	26%
NETHER PROVIDENCE	3,154.67	5,250.98	8,405.65	38%
NEWTOWN	4,984.86	3,676.45	8,661.31	58%
NORWOOD	515.99	3,567.12	4,083.11	13%
PARKSIDE	96.89	1,123.27	1,220.16	8%
PROSPECT PARK	750.58	3,201.88	3,952.46	19%
RADNOR TWP.	13,478.33	7,529.24	21,007.57	64%
RIDLEY PARK	1,065.41	2,805.05	3,870.46	28%
RIDLEY TWP.	4,832.18	16,967.42	21,799.60	22%
ROSE VALLEY	138.01	332.27	470.28	29%
RUTLEDGE	46.01	670.26	716.27	6%
SHARON HILL	786.08	2,943.10	3,729.18	21%
SPRINGFIELD	7,121.91	12,209.27	19,331.18	37%
SWARTHMORE	3,149.06	1,458.92	4,607.98	68%
THORNBURY	162.55	3,785.23	3,947.78	4%
TINICUM	326.32	2,711.85	3,038.17	11%
TRAINER	2,646.07	1,073.17	3,719.24	71%
UPLAND BOROUGH	949.93	1,506.95	2,456.88	39%
UPPER CHICHESTER	2,263.69	6,857.92	9,121.61	25%
UPPER DARBY	12,428.94	38,088.53	50,517.47	25%
UPPER PROVIDENCE	1,159.66	4,535.82	5,695.48	20%
YEADON	1,426.31	4,040.51	5,466.82	26%
<b>MUNICIPAL TOTALS</b>	<b>110,314.08</b>	<b>245,624.41</b>	<b>355,938.49</b>	
TOTALS NOT ATTRIBUTED TO A PARTICULAR MUNICIPALITY	59,908.61		60,179.79	
<b>OVERALL COUNTY TOTALS</b>	<b>170,222.69</b>	<b>245,624.41</b>	<b>416,118.28</b>	
<b>Population ~ 550,864</b>	<b>Overall County's Percentage Rate</b>		<b>41%</b>	

SOURCE:

+ Delaware County Solid Waste Authority



**2009**  
**MUNICIPAL SOLID WASTE and RECYCLING TOTALS +**

MUNICIPALITIES	TOTAL RECYCLING	MSW	TRASH + RECYCLING	RECYCLING RATE
ALDAN	508.66	2,256.78	2,765.44	18%
ASTON	4,134.40	7,365.98	11,500.38	36%
BETHEL	1,133.00	3,773.37	4,906.37	23%
BROOKHAVEN	1,552.84	3,236.04	4,788.88	32%
CHADDS FORD	625.47	1,908.84	2,534.31	25%
CHESTER CITY	6,329.84	13,904.18	20,234.02	31%
CHESTER HEIGHTS	192.98	399.14	592.12	33%
CHESTER TOWNSHIP	92.85	2,665.54	2,758.39	3%
CLIFTON HEIGHTS	539.58	3,079.32	3,618.90	15%
COLLINGDALE	278.79	4,060.85	4,339.64	6%
COLWYN	8.18	690.65	698.83	1%
CONCORD	3,226.93	5,024.61	8,251.54	39%
DARBY BOR.	228.24	4,651.50	4,879.74	5%
DARBY TOWNSHIP	30,905.52	4,693.85	35,599.37	87%
EAST LANSDOWNE	97.76	1,425.34	1,523.10	6%
EDDYSTONE	1,801.16	1,215.12	3,016.28	60%
EDGMONT	878.28	1,174.46	2,052.74	43%
FOLCROFT	2,373.67	3,269.31	5,642.98	42%
GLENOLDEN	1,114.40	3,102.04	4,216.44	26%
HAVERFORD	11,759.11	20,048.73	31,807.84	37%
LANSDOWNE	1,883.97	4,363.25	6,247.22	30%
LOWER CHICHESTER	168.49	1,903.84	2,072.33	8%
MARCUS HOOK	3,282.19	1,236.65	4,518.84	73%
MARPLE TWP.	5,853.54	10,753.12	16,606.66	35%
MEDIA	2,394.10	948.22	3,342.32	72%
MIDDLETOWN	2,424.59	6,538.61	8,963.20	27%
MILLBOURNE	4.52	482.25	486.77	1%
MORTON	547.32	1,012.00	1,559.32	35%
NETHER PROVIDENCE	1,635.92	6,153.18	7,789.10	21%
NEWTOWN	2,561.07	6,408.50	8,969.57	29%
NORWOOD	474.64	3,572.19	4,046.83	12%
PARKSIDE	155.32	982.30	1,137.62	14%
PROSPECT PARK	662.87	2,986.54	3,649.41	18%
RADNOR TWP.	9,646.85	9,163.18	18,810.03	51%
RIDLEY PARK	1,172.56	2,994.39	4,166.95	28%
RIDLEY TWP.	5,447.27	15,155.50	20,602.77	26%
ROSE VALLEY	109.00	76.17	185.17	59%
RUTLEDGE	50.29	669.41	719.70	7%
SHARON HILL	1,188.80	2,677.51	3,866.31	31%
SPRINGFIELD	8,628.02	11,676.80	20,304.82	42%
SWARTHMORE	2,603.20	1,549.69	4,152.89	63%
THORNBURY	476.49	2,194.74	2,671.23	18%
TINICUM	420.82	2,619.08	3,039.90	14%
TRAINER	1,033.58	954.16	1,987.74	52%
UPLAND BOROUGH	432.90	1,499.46	1,932.36	22%
UPPER CHICHESTER	4,161.69	6,522.41	10,684.10	39%
UPPER DARBY	9,977.03	35,086.23	45,063.26	22%
UPPER PROVIDENCE	1,736.45	4,438.43	6,174.88	28%
YEADON	11,688.68	4,357.17	16,045.85	73%
<b>MUNICIPAL TOTALS</b>	<b>148,603.83</b>	<b>236,920.63</b>	<b>385,524.46</b>	
TOTALS NOT ATTRIBUTED TO A PARTICULAR MUNICIPALITY	61,305.91	1,878.44	63,184.35	
<b>OVERALL COUNTY TOTALS</b>	<b>209,909.74</b>	<b>238,799.07</b>	<b>448,708.81</b>	
<b>Population ~ 550,864</b>	<b>Overall County's Percentage Rate</b>			<b>47%</b>

SOURCE:

+ Delaware County Solid Waste Authority



**2010**  
**MUNICIPAL SOLID WASTE and RECYCLING TOTALS +**

MUNICIPALITIES	TOTAL RECYCLING	MSW	TRASH + RECYCLING	RECYCLING RATE
ALDAN	830.36	2,322.66	3,153.02	26%
ASTON	3,803.07	7,210.65	11,013.72	35%
BETHEL	982.70	3,617.08	4,599.78	21%
BROOKHAVEN	2,006.56	3,013.59	5,020.15	40%
CHADDS FORD	678.55	1,940.02	2,618.57	26%
CHESTER CITY	44,636.36	13,202.14	57,838.50	77%
CHESTER HEIGHTS	127.35	315.17	442.52	29%
CHESTER TOWNSHIP	1,740.39	2,476.19	4,216.58	41%
CLIFTON HEIGHTS	993.24	2,953.92	3,947.16	25%
COLLINGDALE	291.65	3,917.06	4,208.71	7%
COLWYN	112.64	898.27	1,010.91	11%
CONCORD	3,570.95	4,446.95	8,017.90	45%
DARBY BOR.	186.74	4,661.31	4,848.05	4%
DARBY TOWNSHIP	99,894.96	4,473.97	104,368.93	96%
EAST LANSDOWNE	104.46	1,431.60	1,536.06	7%
EDDYSTONE	1,144.40	1,172.10	2,316.50	49%
EDGMONT	885.46	1,199.11	2,084.57	42%
FOLCROFT	1,971.80	3,159.12	5,130.92	38%
GLENOLDEN	1,504.19	2,999.51	4,503.70	33%
HAVERFORD	11,803.84	18,488.40	30,292.24	39%
LANSDOWNE	2,384.63	4,105.87	6,490.50	37%
LOWER CHICHESTER	299.38	1,828.58	2,127.96	14%
MARCUS HOOK	2,684.11	1,186.74	3,870.85	69%
MARPLE TWP.	7,528.90	10,224.45	17,753.35	42%
MEDIA	2,470.94	770.11	3,241.05	76%
MIDDLETOWN	2,617.53	6,846.13	9,463.66	28%
MILLBOURNE	7.87	435.24	443.11	2%
MORTON	572.21	928.37	1,500.58	38%
NETHER PROVIDENCE	7,359.07	6,302.57	13,661.64	54%
NEWTOWN	6,744.81	6,615.64	13,360.45	50%
NORWOOD	497.33	3,227.19	3,724.52	13%
PARKSIDE	81.13	960.97	1,042.10	8%
PROSPECT PARK	690.20	2,936.21	3,626.41	19%
RADNOR TWP.	8,948.68	8,665.72	17,614.40	51%
RIDLEY PARK	1,519.05	2,947.24	4,466.29	34%
RIDLEY TWP.	20,670.57	14,673.73	35,344.30	58%
ROSE VALLEY	112.00	32.11	144.11	78%
RUTLEDGE	62.19	654.42	716.61	9%
SHARON HILL	1,244.65	2,148.18	3,392.83	37%
SPRINGFIELD	14,014.48	11,734.59	25,749.07	54%
SWARTHMORE	3,061.72	1,348.79	4,410.51	69%
THORNBURY	444.81	2,305.71	2,750.52	16%
TINICUM	513.76	2,623.14	3,136.90	16%
TRAINER	279.47	946.19	1,225.66	23%
UPLAND BOROUGH	922.88	1,485.45	2,408.33	38%
UPPER CHICHESTER	3,645.35	6,301.26	9,946.61	37%
UPPER DARBY	14,535.74	33,902.02	48,437.76	30%
UPPER PROVIDENCE	1,133.31	4,109.94	5,243.25	22%
YEADON	1,061.70	4,169.68	5,231.38	20%
<b>MUNICIPAL TOTALS</b>	<b>283,378.14</b>	<b>228,315.06</b>	<b>511,693.20</b>	<b>55%</b>
TOTALS NOT ATTRIBUTED TO A PARTICULAR MUNICIPALITY	59,456.00	1,577.82	61,033.82	
<b>OVERALL COUNTY TOTALS</b>	<b>342,834.14</b>	<b>229,892.88</b>	<b>572,727.02</b>	<b>60%</b>
<b>Population ~ 550,864</b>	<b>Overall County's Percentage Rate</b>		<b>60%</b>	

SOURCE:

+ Delaware County Solid Waste Authority

**2011**  
**MUNICIPAL SOLID WASTE and RECYCLING TOTALS +**

MUNICIPALITIES	TOTAL RECYCLING	MSW	TRASH + RECYCLING	RECYCLING RATE
ALDAN	451.96	2,286.43	2,738.39	17%
ASTON	4,084.85	7,443.03	11,527.88	35%
BETHEL	1,339.18	3,607.95	4,947.13	27%
BROOKHAVEN	2,649.06	3,019.25	5,668.31	47%
CHADDS FORD	339.92	2,510.74	2,850.66	12%
CHESTER CITY	40,518.68	14,293.91	54,812.59	74%
CHESTER HEIGHTS	243.20	148.01	391.21	62%
CHESTER TOWNSHIP	771.49	2,663.26	3,434.75	22%
CLIFTON HEIGHTS	839.77	2,813.21	3,652.98	23%
COLLINGDALE	327.70	3,950.14	4,277.84	8%
COLWYN	97.86	713.09	810.95	12%
CONCORD	4,693.26	3,706.31	8,399.57	56%
DARBY BOR.	120.59	4,271.89	4,392.48	3%
DARBY TOWNSHIP	58,653.57	4,564.30	63,217.87	93%
EAST LANSDOWNE	197.34	1,465.39	1,662.73	12%
EDDYSTONE	2,060.60	1,190.12	3,250.72	63%
EDGMONT	1,097.64	888.97	1,986.61	55%
FOLCROFT	1,961.60	3,441.33	5,402.93	36%
GLENOLDEN	1,522.03	3,050.24	4,572.27	33%
HAVERFORD	11,444.21	18,753.07	30,197.28	38%
LANSDOWNE	1,897.73	3,640.19	5,537.92	34%
LOWER CHICHESTER	229.93	1,806.13	2,036.06	11%
MARCUS HOOK	7,806.72	1,219.68	9,026.40	86%
MARPLE TWP.	7,389.79	9,941.02	17,330.81	43%
MEDIA	2,570.80	960.46	3,531.26	73%
MIDDLETOWN	3,046.44	5,245.74	8,292.18	37%
MILLBOURNE	13.94	477.75	491.69	3%
MORTON	460.30	937.04	1,397.34	33%
NETHER PROVIDENCE	4,235.28	6,363.87	10,599.15	40%
NEWTOWN	4,834.24	6,451.52	11,285.76	43%
NORWOOD	482.61	3,387.36	3,869.97	12%
PARKSIDE	124.59	1,043.17	1,167.76	11%
PROSPECT PARK	992.84	2,994.82	3,987.66	25%
RADNOR TWP.	9,740.64	7,839.29	17,579.93	55%
RIDLEY PARK	1,227.63	2,974.01	4,201.64	29%
RIDLEY TWP.	9,948.44	14,419.03	24,367.47	41%
ROSE VALLEY	138.38	20.16	158.54	87%
RUTLEDGE	71.59	678.30	749.89	10%
SHARON HILL	1,175.70	2,374.97	3,550.67	33%
SPRINGFIELD	9,592.59	12,734.50	22,327.09	43%
SWARTHMORE	2,714.50	1,310.64	4,025.14	67%
THORNBURY	421.82	2,758.91	3,180.73	13%
TINICUM	700.51	2,732.78	3,433.29	20%
TRAINER	142.51	1,138.18	1,280.69	11%
UPLAND BOROUGH	677.03	1,496.00	2,173.03	31%
UPPER CHICHESTER	5,281.00	6,388.30	11,669.30	45%
UPPER DARBY	11,711.55	34,363.53	46,075.08	25%
UPPER PROVIDENCE	1,193.30	4,241.61	5,434.91	22%
YEADON		4,435.26	5,164.17	14%
<b>MUNICIPAL TOTALS</b>	<b>222,236.91</b>	<b>229,154.86</b>	<b>452,120.68</b>	
TOTALS NOT ATTRIBUTED TO A PARTICULAR MUNICIPALITY	35,241.60	1,143.85	36,385.45	
<b>OVERALL COUNTY TOTALS</b>	<b>257,478.51</b>	<b>230,298.71</b>	<b>488,506.13</b>	
<b>Population ~ 558,979</b>	<b>Overall County's Percentage Rate</b>		<b>58%</b>	

SOURCE:

+ Delaware County Solid Waste Authority



**TABLE 3-2  
2012**

**MUNICIPAL SOLID WASTE and RECYCLING TOTALS +**

<b>MUNICIPALITIES</b>	<b>TOTAL RECYCLING</b>	<b>MSW</b>	<b>TRASH + RECYCLING</b>	<b>RECYCLING RATE</b>
ALDAN	857.06	1,860.65	2,717.71	32%
ASTON	3,553.43	6,667.89	10,221.32	35%
BETHEL	1,102.60	3,455.73	4,558.33	24%
BROOKHAVEN	1,980.08	2,751.05	4,731.13	42%
CHADDS FORD	407.40	2,381.53	2,788.93	15%
CHESTER CITY	5,404.73	13,132.17	18,536.90	29%
CHESTER HEIGHTS	196.00	88.28	284.28	69%
CHESTER TOWNSHIP	580.90	1,662.57	2,243.47	26%
CLIFTON HEIGHTS	937.09	2,728.80	3,665.89	26%
COLLINGDALE	383.93	3,747.87	4,131.80	9%
COLWYN	98.71	908.96	1,007.67	10%
CONCORD	4,461.01	3,653.32	8,114.33	55%
DARBY BOR.	365.54	3,759.43	4,124.97	9%
DARBY TOWNSHIP	51,615.18	4,380.24	55,995.42	92%
EAST LANSDOWNE	317.32	1,215.69	1,533.01	21%
EDDYSTONE	1,432.04	1,090.04	2,522.08	57%
EDGMONT	1,869.75	905.57	2,775.32	67%
FOLCROFT	2,088.67	2,625.45	4,714.12	44%
GLENOLDEN	1,562.56	3,145.20	4,707.76	33%
HAVERFORD	13,578.71	18,055.84	31,634.55	43%
LANSDOWNE	1,956.52	3,471.45	5,427.97	36%
LOWER CHICHESTER	468.74	1,727.63	2,196.37	21%
MARCUS HOOK	1,048.47	1,138.38	2,186.85	48%
MARPLE TWP.	7,558.32	9,569.48	17,127.80	44%
MEDIA	2,044.10	869.08	2,913.18	70%
MIDDLETOWN	3,748.20	5,821.51	9,569.71	39%
MILLBOURNE	15.76	462.07	477.83	3%
MORTON	562.84	979.21	1,542.05	36%
NETHER PROVIDENCE	4,385.29	5,670.86	10,056.15	44%
NEWTOWN	5,919.56	6,031.75	11,951.31	50%
NORWOOD	613.05	3,233.94	3,846.99	16%
PARKSIDE	110.72	1,253.03	1,363.75	8%
PROSPECT PARK	996.88	2,730.12	3,727.00	27%
RADNOR TWP.	11,074.62	7,438.36	18,512.98	60%
RIDLEY PARK	1,662.53	2,779.68	4,442.21	37%
RIDLEY TWP.	8,296.05	13,514.61	21,810.66	38%
ROSE VALLEY	110.74	15.61	126.35	88%
RUTLEDGE	92.78	617.66	710.44	13%
SHARON HILL	1,178.97	2,726.84	3,905.81	30%
SPRINGFIELD	8,610.15	12,077.60	20,687.75	42%
SWARTHMORE	2,387.00	1,241.25	3,628.25	66%
THORNBURY	575.23	3,271.49	3,846.72	15%
TINICUM	751.86	2,521.68	3,273.54	23%
TRAINER	141.13	1,332.72	1,473.85	10%
UPLAND BOROUGH	755.80	1,421.30	2,177.10	35%
UPPER CHICHESTER	2,881.52	5,847.23	8,728.75	33%
UPPER DARBY	12,010.19	32,397.52	44,407.71	27%
UPPER PROVIDENCE	1,563.89	4,061.98	5,625.87	28%
YEADON	900.80	4,253.03	5,153.83	17%
<b>MUNICIPAL TOTALS</b>	<b>175,214.42</b>	<b>216,693.35</b>	<b>391,907.77</b>	
TOTALS NOT ATTRIBUTED TO A PARTICULAR MUNICIPALITY	106,449.27	997.17	107,446.44	
<b>OVERALL COUNTY TOTALS</b>	<b>281,663.69</b>	<b>217,690.52</b>	<b>499,354.21</b>	

**558,979 Overall County's Percentage Rate**

**56%**

**SOURCE:**

+ Delaware County Solid Waste Authority

**TABLE 3-3 +**  
**COVANTA DELAWARE VALLEY, L.P.**  
**PERMITTED CAPACITY**

	MSW			ASH		
YEAR	TOTAL RECEIVED	DELAWARE COUNTY	NON COUNTY	TOTAL GENERATED	DELAWARE COUNTY	NON COUNTY
2004	1,143,566	364,230	779,336	380,333	121,137	259,196
2005	1,144,825	369,402	775,423	356,366	114,989	241,377
2006	1,173,923	411,922	762,001	362,583	127,228	235,355
2007	1,147,432	398,884	748,548	353,197	122,783	230,414
2008	1,191,202	400,477	790,725	388,956	130,765	258,191
2009	1,243,006	369,316	873,690	421,192	103,626	317,566
2010	1,224,840	359,818	865,022	381,804	94,323	287,481
2011	1,188,926	360,718	828,207	377,588	96,168	281,420
2012	1,200,913	352,596	848,317	369,493	108,732	260,761
<b>PROJECTION GOING FORWARD</b>						
	MSW			ASH		
YEAR	PERMITTED CAPACITY*	DELAWARE COUNTY**	AVAILABLE PERMITTED CAPACITY	PERMITTED CAPACITY***	DELAWARE COUNTY**	AVAILABLE PERMITTED CAPACITY
2009	1,357,200	303,375	1,053,825	407,160	91,013	316,147
2010	1,357,200	303,375	1,053,825	407,160	91,013	316,147
2011	1,357,200	303,375	1,053,825	407,160	91,013	316,147
2012	1,357,200	303,375	1,053,825	407,160	91,013	316,147
2013	1,357,200	303,375	1,053,825	407,160	91,013	316,147
2014	1,357,200	303,375	1,053,825	407,160	91,013	316,147
2015	1,357,200	303,375	1,053,825	407,160	91,013	316,147
2016	1,357,200	303,375	1,053,825	407,160	91,013	316,147
2017	1,357,200	303,375	1,053,825	407,160	91,013	316,147
2018	1,357,200	303,375	1,053,825	407,160	91,013	316,147
2019	1,357,200	303,375	1,053,825	407,160	91,013	316,147
2020	1,357,200	303,375	1,053,825	407,160	91,013	316,147
Notes:	* Extrapolated from DEP solid waste permit limit of 26,100 tons/week.					
	** Minimal contracted limit.					
	*** Based on an assumption of a 70% weight reduction.					

**SOURCE:**

+ Covanta Delaware Valley, L.P.  
 Revised: June, 2013

TABLE 4-1

MUNICIPALITY	Population	ITEMS COLLECTED CURBSIDE	White		Drop Off Locations
			Goods	Separate Yardwaste	
ALDAN	4,152	Single Stream	No	No	Single Stream: Aldan E.S., 1 N. Woodlawn Ave., 19014 SS: Giant, 539 N. Oak Ave.
ASTON	16,592	Single Stream, White Goods, Yardwaste	Yes	Yes	Igloos: Behind Twp. Bldg: e-Waste disposal for residents
BETHEL	8,791	Single Stream, White Good, Yardwaste	Yes	Yes	Glass/Cell Phones: Twp. Bldg.; Paper: Bethel Springs, E.S.; Francis Harvey Green, 3220 Foulk Rd.; Garnet Valley ES, 3220 Foulk Rd.;
BROOKHAVEN	8,006	Single Stream, White Goods, Yardwaste	Yes	Yes	Paper/Our Lady of Charity, 231 Upland Rd.; Thomas Coebourn E.S., 1 Coebouorn Blvd.; Automotive Products: AMF Auto Clinic, 3808 Edgmont Rd.
CHADDS FORD	3,170	Partial Private Subscription - Single Stream	At Annual Recycle Day	No	Paper: The Goddard School, 2 Hillman Rd.; St. Cornelius School, 160 Ridge Rd.
CHESTER CITY	33,972	Single Stream, White Goods, Yardwaste	Yes	Yes	Igloos: Covanta; Paper: Chester Upland School for the Arts, 501 W. 9th St.; Eastern Generator, 651 E. 9th St; De Co. Linen, 2626 W. 4th St.; Drexel Neumann Academy, 1901 Potter St; Wrdener Partnership Charter School, 1450 Edgemont Ave.
CHESTER HEIGHTS	2,531	Partial Private Subscription - Single Stream	No	No	Single Stream: Darlington Woods, 400 Ashley Court, Brandywine Circle, Glen Mills
CHESTER TOWNSHIP	4,604	Single Stream, Yardwaste	No	Yes	Igloos: Engle Street (under bridge)
CLIFTON HEIGHTS	6,779	Commingled, all SS items with Paper & Cardboard separate, White Goods, Yardwaste	Yes	Yes	Igloos: Municipal Bldg. also cell phones, and Ink Cartridges
COLLINGDALE	8,796	Single Stream, White Goods, Yardwaste	Yes	Yes	Igloos & Clothing: Municipal Bldg.; Clothing: BP Gas Station, 1268 MacDade Blvd.
COLWYN	2,453	Single Stream		No	Igloos and Paper: Municipal Bldg., 221 Spruce St..
CONCORD	17,231	Single Stream, Yardwaste	Priv. Hauler	Yes	Igloos: Twp. Garage
DARBY BOR.	10,667	Cardboard, Paper, Glass, Cans Aluminum, Bimetallic, Newspaper, Plastics, White Goods, Yardwaste	No	Yes	Igloos & clothing: Borough Hall, 821 Summit St.
DARBY TOWNSHIP	9,264	White Goods, Yardwaste	Yes	Yes	Igloos: Twp. Bldg, 1063 Cedarwood Rd.; Paper: Blessed Virgin Mary School, 1101 Main St., Walnut St E.S., 224 S. 6th St.; Cell phones: Twp. Bldg.
EAST LANSDOWNE	2,668	White Goods, Yardwaste	Yes	Yes	Igloos: Municipal Bldg., 155 Lexington Ave., Lansdowne Paper - St. Cyril's, 153 Penn Blvd., E. Lansdowne
EDDYSTONE	2,442	Single Stream Eff. 4/13			Igloos: Highway Garage, 8th & Eddystone Ave.
EDGMONT	3,967	Single Stream (Private Subscription)	No	No	Igloos, Paper and Cell Phones: Twp. Bldg.; Paper: Keenan Auto Body, 4936 W. Chester Pke, Edgmont; Consumer electronics, batteries, ink cartridges: Staples, 4845 W. Chester Pke, Newtown Square
FOLCROFT	6,978	Single Stream, White Goods, Yardwaste	Yes	Yes	Igloos & clothing: Twp Bldg.; Paper: Delcroft School, 799 School Lane; De Co. Technical School, 701 Henderson Rd.
GLENOLDEN	7,476	Single Stream, White Goods, Yardwaste	Yes	Yes	Igloos: Twp. Bldg & MacDade Mall; Paper: MacDade Mall; Glenolden School, 120 S. MacDade & 150 S. MacDade; First Presbyterian Church, 2 S. Chester Pike; Walter Senkow E.S., 15 E. Lamont Ave.; Oil, Antifreeze, scrap metal: Robin Ford, 100 N. MacDade Blvd.
HAVERFORD	48,491	Single Stream, White Goods, Yardwaste	Yes	Yes	SS: behind Police Dept., 1010 Darby Rd; Paper: Sacred Heart, Manoa Rd.; Cardinal John Foley Ctr (St. Denis); Cell Phones: Twp. Library, Mill Road

Single Stream Items include: Cardboard; All grades of Paper; Clear, Green, Brown Glass; Bimetallic and Aluminum Cans; Plastics.  
Igloo Locations include: Clear, Green, Brown Glass; Bimetallic and Aluminum Cans; Plastic Bottles  
Revised: May, 2013



TABLE 4-1

MUNICIPALITY	Population	ITEMS COLLECTED CURBSIDE	White		Drop Off Locations
			Goods	Separate Yardwaste	
LANSDOWNE	10,620	Single Stream, White Goods, Yardwaste	Yes	Yes	Igloos: Across the St. from Boro Hall; Paper: St. Philomena School, 41 E. Baltimore Ave.; Cell phones and toner, rechargeable batteries: Boro Hall, 12 E. Baltimore Ave. Paper: Holy John/St. John Fisher School 122 E. Ridg Rd., Linwood E.S., 1403 Hudell Ave., Sunrise Christian School, 1627 Chichester Ave.
LOWER CHICHESTER	3,469		No	No	
MARCUS HOOK	2,314		Yes	Yes	Igloos & Paper: Highway Garage, 1015 Green Street
MARPLE	23,737	Single Stream, White Goods, Yardwaste	Yes	Yes	Igloos: Marple Transfer Station; Paper, Cardboard: Yardwaste: Old Marple School, W. Chester Pike; Paper: Beth El Ner Tamid, 715 Paxon Hollow Rd., Paxon Hollow M.S., 815 Paxon Holl Rd.; Russell E.S. 2201 Sproul Rd., St. Plus School, 204 S. Lawrence Rd.; Worral E.S., 2979 Pennview Ave.; <b>Single Stream and E-Waste:</b> Highway Yard, 447 Marpit Drive.
MEDIA	5,327	Single Stream, White Goods, Yardwaste	Yes	Yes	Igloos: Brooke Street Recycling Center, Paper: 308 N. Olive St.
MIDDLETOWN	15,807	Single Stream, Yardwaste	No	Yes	Cell Phones: Twp. Bldg., Library; Paper: Indian Lane E.S., 309 S. Old Middletown Rd., Penncrest H.S., 134 Barren Rd., Middletown Baptist Church, 28 S. New Middletown Rd.; Rocky Run YMCA, 1299 W. Baltimore Pke
MILLBOURNE	1,159	Single Stream (A resident collects and brings to Murr. Bldg)	No	Yes	Single Stream brought to Municipal Bldg, 9 Park Lane
MORTON	2,689	Single Stream (effective 1/2/13), Leaves	Yes	Yes	Igloos: Municipal Bldg; Paper: 2130 Franklin Ave.; 200 Yale; and 549 Amosland Rd. Recycling Ctr., 5 W. Brookhaven Rd., single stream items; Ink cartridges & Cell phones: Twp. Bldg.; Paper: Strath Haven H.S., 205 S. Providence Rd.
NETHER PROVIDENCE	13,706	Single Stream, White Goods, Yardwaste	Yes	Yes	Paper: St. Alban's Episcopal Church, 3625 Chapel Rd., Knights of Columbus, 327 Newtown Street Rd.; Cell Phones: Twp. Bldg & Library, 209 Bishop Hollow Rd; Plastic Bags: Acme, 3590 W. Chester Pike; Tires, antifreeze, batteries, oil, scrap metal: Mulloy's Automotive, 26 S. Newtown St. Rd.
NEWTOWN	12,216	Single Stream, Yardwaste	No	Yes	Igloos: Boro Garage; Paper: Norwood E.S., 558 Seneca Ave., St. Gabriel School, 233 Mohawk Ave; Cell phones: Boro Bldg.
NORWOOD	5,890	Single Stream, Yardwaste	Yes	Yes	
PARKSIDE	2,328	Single Stream (New 2013), Yardwaste	Yes	Yes	Igloos: Houston St.
PROSPECT PARK	6,454	Single Stream, Yardwaste	No	Yes	Paper: Interboro H.S., 900 Washington Ave.; Prospect Park E.S., 9th & PA Ave.; Kindergarten Academy, 900 Washington Ave.
RADNOR TWP.	31,551	Single Stream, White Goods, Yardwaste	Yes	Yes	Igloos: Behind Villanova University Stadium: Yardwaste Monthly: Skunk Hollow, Darby Paoli Rd.
RIDLEY PARK	7,196	Single Stream, Yardwaste		Yes	Igloos: Boro Garage, 213 W. Ridley Ave.; Paper: Lakeview E.S, 333 Constitution Ave., Leedom School, 620 E. Chester Pike, Ridley Middle School, 400 Free St.
RIDLEY TWP.	30,768	Single Stream, White Goods, Yardwaste	Yes	Yes	Single Stream & Yardwaste: Twp. Public Works Garage, 2nd & Sutton; Igloos: Milmont Fire Co.; Paper: Town Talk, 1914 Parket Ave.
ROSE VALLEY	913	Single Stream	No	No	

Single Stream Items include: Cardboard; All grades of Paper; Clear, Green, Brown Glass; Bimetallic and Aluminum Cans; Plastics. Igloo Locations include: Clear, Green, Brown Glass; Bimetallic and Aluminum Cans; Plastic Bottles Revised: May, 2013

**TABLE 4-1**

MUNICIPALITY	Population	ITEMS COLLECTED CURBSIDE	White		Separate Yardwaste	Drop Off Locations
			Goods	No		
RUTLEDGE	784	Single Stream	No	No		Igloos: Municipal Bldg.
SHARON HILL	5,468	Single Stream, White Goods, Yardwaste	Yes	Yes		Igloos: Boro Garage, Sharon Ave. & Spring St; Paper: Academy Park H.S., 300 Calcon Hook Rd.; Sharon Hill Public Library, 246 Sharon Ave., also Cell Phones
SPRINGFIELD	24,211	Commingled all items Paper & Cardboard separate, White Goods, Yardwaste	Yes	Yes		Motor Oil: Public Works, 1258 Church St.; Cell Phones, Twp. Bldg. 50 Powell Rd.; Paper: St. Kevin's, Sproul Rd., St. Francis, Saxer Ave., Holy Cross, Springfield Road; Electronics: Public Works, 2058 Church Rd., Police Dept., 50 Powel Rd.
SWARTHMORE	6,194	Single Stream, White Goods, Yardwaste	Yes	Yes		Igloos, Paper, Cell Phones, Cartridges - Public Works Yard, 121 Park Ave.; Paper: Cades, 401 Rutgers Ave.; Grace Park E.S., 7th Ave.; Notre Dame deLourdes School, 990 Fairview Rd.
THORNBURY	8,028	Single Stream, Yardwaste		Upon Request		
TINICUM	4,091	Single Stream (effective 3/13/13), Yardwaste	Yes	Yes		Igloos: Twp. Library, 620 Seneca St.; Paper: St. Margaret Mary, 500 Wanamaker, Tinicum School, 91 Seneca St., Twp Bldg., 629 N. Gov. Printz Blvd.; Oil & Antifreeze: Baldwin Automotive, 10 Industrial Hwy.
TRAINER	1,828					Paper: Trainer Boro, 824 Main St.; St. Margaret Mary Alacoque, 500 Wanamaker Ave.
UPLAND BOROUGH	3,239	Single Stream, White Goods	Yes	Yes		Igloos: Camp Upland Park, 3704 Sixth St.
UPPER CHICHESTER	16,738	Single Stream, White Goods, Yardwaste	Yes	Yes		Single Stream: Kingsman Road Playground, Chichester Ave.; Twp. Bldg., 8500 Furey Rd.; St. John Fisher, 4225 Chichester Ave.; Chichester H.S., 333 Chichester Ave.; Chichester Middle School, 925 Meetinghouse Rd.; Oil, Antifreeze, Scrap Metal, Tires: Nelson's Auto Service, 507 Bethel Ave., Aston (Upper Chi)
UPPER DARBY	82,795	Single Stream, White Goods, Yardwaste	Yes	Yes		Igloos: Naylors Run Park, Kent Park, Highway Yard; Paper: 7240 Walnut Street; 1 Harper Ave.; 535 Mason Ave.; 3830 Garrett Rd.; 4611 Bond Ave.; 403 N. Lansdowne Ave.; 200 S. Oak Ave.; 561 Bunting Lane; Clothing: 2806 Township Line, D.H.; 729 Long Lane.; 1001 Pontiac Dr.; Oil: U.D. Maintenance, 8536 Monroe Ave.; Qyst 8607 W. Cheter Pike; 3421 Garrett Rd.; Ink Cartridges & Cell Phones: U.S. Flags: Mun. Bldg., 100 Garrett Rd.
UPPER PROVIDENCE	10,142	Single Stream, White Goods, Yardwaste	Yes	Yes		Igloos: Rose Tree Park, Providence Rd.; Twp Bldg. Cell Phones, Ink Cartridges, U.S. Flags & Paper: Reformation Lutheran Church, 102 W. Rose Tree Rd.; Paper: Springton Lake Middle School, 1900 N. Providence Rd., Walden School, 901 N. Providence Rd.
YEADON	11,443	Single Stream, White Goods, Yardwaste	Yes	Yes		Paper: Manor Care, 14 Lincoln Ave.
TOTAL POPULATION	560,125					

Single Stream Items include: Cardboard; All grades of Paper; Clear, Green, Brown Glass; Bimetallic and Aluminum Cans; Plastics.  
 Igloo Locations include: Clear, Green, Brown Glass; Bimetallic and Aluminum Cans; Plastic Bottles  
 Revised: May, 2013



**TABLE 4-2+  
DCSWA RECYCLING IGLOO LOCATIONS**

ALL Recycling Sites now accept: Clear, Green & Brown Glass Bottles & Jars; Plastics # 1 & #2 - <i>Bottles only*</i> ; Bimetallic & Aluminum Cans			
TOWNSHIP/ BOROUGH	LOCATION	ADDRESS	POST OFFICE
ALDAN	GIANT MARKET	39 N. OAK AVE.	ALDAN
ASTON TOWNSHIP	MUNICIPAL BLDG.	233 PENNEL ROAD	ASTON
BETHEL TOWNSHIP	MUNICIPAL BLDG / GARAGE	1082 BETHEL RD.	GARNET VALLEY
CHESTER CITY	COVANTA DELAWARE VALLEY, L.P.	FRONT & HIGHLAND AVES.	CHESTER CITY
CHESTER TOWNSHIP	MUNICIPAL BLDG.	ENGLE ST. (UNDER BRIDGE)	CHESTER TWP.
	DCSWA - TRANSFER STATION #1	2300 CONCORD RD.	CHESTER TWP.
CLIFTON HEIGHTS	MUNICIPAL BLDG.	30 S. SPRINGFIELD RD.	CLIFTON HEIGHTS
COLLINGDALE BORO	MUNICIPAL BLDG.	800 MACDADE BLVD.	COLLINGDALE
COLWYN BORO	PARKING LOT	16 MAIN STREET	COLWYN
CONCORD TOWNSHIP	TWP. GARAGE	689 SMITHBRIDGE RD.	GLEN MILLS
	CLAYTON PARK	RTE. 322	GLEN MILLS
DARBY TOWNSHIP	POLICE STATION	HOOK RD. & CLIFTON AVE.	DARBY TWP.
DARBY TOWNSHIP	HOOK ROAD SUPERMARKET	HOOK RD. & TRIBBETT AVE.	GLENOLDEN
	BRIARCLIFF	1063 CEDARWOOD ROAD	GLENOLDEN
EAST LANSDOWNE BORO	MUNICIPAL BLDG.	155 LEXINGTON AVENUE	EAST LANSDOWNE
EDDYSTONE BOROUGH	HIGHWAY GARAGE	8th & EDDYSTONE AVE.	EDDYSTONE
EDGMONT TOWNSHIP	MUNICIPAL BLDG.	1000 GRADYVILLE ROAD	GRADYVILLE
FOLCROFT BOROUGH	Across from the MUNICIPAL BLDG.	PRIMOS & ELMWOOD	FOLCROFT
GLENOLDEN BOROUGH	MUNICIPAL BLDG.	36 E. BOON AVE.	GLENOLDEN
	MacDADE MALL (near Acme)	MacDADE BLVD. & OAK AVE.	GLENOLDEN
LANSDOWNE BOROUGH	MUNICIPAL PARKING LOT	12 E. BALTIMORE AVE.	LANSDOWNE
MARCUS HOOK BOROUGH	BOROUGH GARAGE	10th & GREEN STS.	MARCUS HOOK
MARPLE TOWNSHIP	DCSWA - TRANSFER STATION #3	800 SUSSEX BLVD.	BROOMALL
MEDIA BOROUGH	RECYCLING CTR/HIGHWAY YARD	BROOKE STREET	MEDIA
MORTON BOROUGH	MUNICIPAL BLDG.	SYCAMORE & HIGHLAND AVE.	MORTON
NORWOOD BOROUGH	BOROUGH GARAGE	10 W. CLEVELAND AVE.	NORWOOD
PARKSIDE BOROUGH	PE POWER STATION	HOUSTON STREET	PARKSIDE
RADNOR TOWNSHIP	VILLANOVA – Behind Football Stadium	N. ITHAN AVE. & COUNTY LINE RD	VILLANOVA
RIDLEY PARK BOROUGH	BOROUGH GARAGE	213 W. RIDLEY AVENUE	RIDLEY PARK
RIDLEY TOWNSHIP	MILMONT PARK FIRE CO.	BELMONT & FORREST AVE.	MILMONT PARK
RUTLEDGE BOROUGH	MUNICIPAL BLDG.	212 UNITY TERRACE	RUTLEDGE
SHARON HILL BOROUGH	BOROUGH GARAGE	SHARON AVE. & SPRING ST.	SHARON HILL
SWARTHMORE BOROUGH	BOROUGH GARAGE	121 DARTMOUTH AVE.	SWARTHMORE
UPLAND BOROUGH	CAMP UPLAND PARK	3704 SIXTH ST.	UPLAND
UPPER DARBY TOWNSHIP	KENT PARK	BRIDGE ST.	UPPER DARBY
	NAYLOR'S RUN PARK	1567 GARRET ROAD	UPPER DARBY
	MAINTENANCE YARD	8201 N. LANSDOWNE AVE.	UPPER DARBY
UPPER PROVIDENCE TWP.	ROSE TREE PARK	1671 N. PROVIDENCE RD.	MEDIA

**\*Include ONLY Plastic Bottles such as Drink - Detergent - Hair Care - Ketchup Bottles. If the neck of the bottle is smaller than the bottom, recycle in County Igloos.**

**Make all your recycle efforts count, Rinse all items prior to placing in Recycling Igloos.**



**TABLE 4-3+  
DELAWARE COUNTY COMPOST FARM HISTORY**

MUNICIPALITY	2005 LEAVES	2006 LEAVES	2007 LEAVES	2008 LEAVES	2009 LEAVES/ YARDWASTE	2010 LEAVES/ YARDWASTE	2011 LEAVES/ YARDWASTE	2012 LEAVES/ YARDWASTE
ASTON	398	306	497	465	395	56	190	190
BETHEL		6	7	4	56	24	14	-
BROOKHAVEN	123	142	208	162	160	119	141	135
CHESTER CITY	81	83	93	106	116	84	91	68
CHESTER TOWNSHIP	4	5	4	10	7	9	15	7
CLIFTON HEIGHTS	6	3	9	7	4	-	3	5
COLLINGDALE					44	35	61	51
CONCORD	18	20	27	47	25	30	19	55
DARBY BORO	17	18	15	17	21	20	12	4
DARBY TOWNSHIP	24	24	28	31	31	27	29	29
EDDYSTONE			4			-	1	-
FOLCROFT	18	18	35	32	32	27	27	21
GLENOLDEN	108	108	206	131	119	112	109	110
HAVERFORD	2,846	2,529	3,399	3,296	120	262		-
LANSDOWNE	266	291	337	298	342	268	286	289
LOWER CHICHESTER					0	1	1	3
MARCUS HOOK		3	7	3	4	3	7	4
MARPLE	1,454	1,231	1,765	1,797	25	-	-	-
MEDIA	247	284	314	348	401	242	327	191
MIDDLETOWN	95	95	108	123	130	156	161	113
MORTON	1	2	2	2	3	0	1	0
NETHER PROVIDENCE	84	17	147	23	4	30	12	12
NEWTOWN	27	179	82	386	90	23	-	-
NORWOOD	84	112	149	124	116	91	98	120
PARKSIDE	9	9	13	12	10	10	13	10
PROSPECT PARK	48	42	64	58	67	46	64	54
RADNOR				17	36	109	-	-
RIDLEY PARK	160	165	209	211	237	122	195	196
RIDLEY TOWNSHIP	443	465	549	595	486	135	46	4
SHARON HILL	54	73	70	76	71	46	60	50
SPRINGFIELD	1,155	914	1,239	1,183	1,236	854	1,118	901
SWARTHMORE			7	36	34	35	22	15
TINICUM	68	78	86	46	90	92	109	71
TRAINER			0			-	-	-
UPLAND BOROUGH	30	23	34	32	28	23	24	16
UPPER CHICHESTER	440	281	472	401	387	105	83	77
UPPER DARBY	458	504	664	545	573	312	392	361
UPPER PROVIDENCE	67	92	65	108	150	116	134	141
YEADON	129	130	149	118	120	64	122	72
DELAWARE CO.	39	3	4	44	24	55	60	72
COMMERCIAL	26	13	21	7	10	12	9	80
<b>YEAR END TONNAGE TOTALS</b>	<b>9,027</b>	<b>8,265</b>	<b>11,092</b>	<b>10,901</b>	<b>5,802</b>	<b>3,754</b>	<b>4,059</b>	<b>3,526</b>

SOURCE:

+Delaware Valley Solid Waste Authority

All totals rounded to the nearest ton

Revised: May, 2013

**TABLE 4-4**  
**Delaware County HHW / Computer / TV Collection Program +**  
**2008**

	Marple Transfer Station 3-29-08	Emergency Services Training Ctr 4-26-08	Covanta, Delaware Valley 9-20-08	Rose Tree Park Thursday 10-16-08	2008 Program Totals	
Waste Material	Lbs. Collected	Lbs. Collected	Lbs. Collected	Lbs. Collected	Lbs. Collected	Percentage
Acids	564	403	197	692	1,856	0.5%
Aerosols	2,326	1,050	299	2,282	5,957	1.5%
Alkaline Waste	553	536	336	984	2,409	0.6%
Antifreeze	1,378	834	444	1,537	4,193	1.0%
Asbestos		-		112	112	0.0%
Batteries - Household	905	392	381	411	2,089	0.5%
Batteries - Lithium	31	17	17	26	91	0.0%
Batteries - NiCad	130	79	60	127	396	0.1%
Fire Extinguishers	383	145	166	228	922	0.2%
Flammable Liquids	5,215	4,106	3,537	8,419	21,277	5.2%
Flares			11	72	83	0.0%
Flammable Solids	19	30			49	0.0%
Fluorescent Tubes		44	296	635	975	0.2%
Latex & Non Haz Material	37,000	13,820	11,840	29,900	92,560	22.8%
Lead Acid Batteries	2,848				2,848	0.7%
Mercury	94	7	16	16	133	0.0%
Oil	3,544	2,451	1,672	3,842	11,509	2.8%
Oxidizer Liquid	145	123		259	527	0.1%
Oxidizer Solid	157	99	28	287	571	0.1%
Paint/Oil (Loose Pack)	4,343	2,338	852	4,040	11,573	2.9%
Pesticide Liquid	1,322	777	479	1,683	4,261	1.1%
Pesticide Solid	1,826	659	652	2,097	5,234	1.3%
PCB Ballast	41		19	122	182	0.0%
PCB Off-spec	393				393	0.1%
Propane - Large	2,320	1,480	950	3,280	8,030	2.0%
Propane - Small	307	123	145	390	965	0.2%
Reactive Solid/wr	7				7	0.0%
Refrigerant Gas		15			15	0.0%
Sodium Cyanide				19	19	0.0%
Compressed Air	1				1	0.0%
Computer Equipment		66,300	2,514	147,070	215,884	53.2%
Acetylene Cylinder	1	-	-		1 cylinder	0.0%
Oxygen Cylinders	1	-	-		1 cylinder	0.0%
Pounds Recycled with Local Vendors at No Charge		3,261	2,006	5,097	10,364	2.6%
<b>Total Pounds Collected</b>	<b>65,854</b>	<b>99,089</b>	<b>26,917</b>	<b>213,627</b>	<b>405,487</b>	<b>100.0%</b>
<b>Total Cost</b>	<b>\$ 32,707.23</b>	<b>\$ 28,058.39</b>	<b>\$ 12,230.13</b>	<b>\$ 61,199.70</b>	<b>\$ 134,195.45</b>	
<b>Number of Participants</b>	<b>998</b>	<b>1,146</b>	<b>375</b>	<b>2,677</b>	<b>5,196</b>	
<b>Lbs. per Participant</b>	<b>66</b>	<b>86</b>	<b>72</b>	<b>80</b>		
<b>Cost per Participant</b>	<b>\$ 32.77</b>	<b>\$ 24.48</b>	<b>\$ 32.61</b>	<b>\$ 22.86</b>		
<b>Cost per Pound</b>	<b>\$ 0.50</b>	<b>\$ 0.28</b>	<b>\$ 0.45</b>	<b>\$ 0.29</b>		

SOURCE:

+Delaware County Solid Waste Authority



**TABLE 4-4**  
**Delaware County HHW / Computer / TV Collection Program +**  
**2009**

	Marple Transfer Station 3-28-09	Emergency Services Training Ctr 4-25-09	Covanta, Delaware Valley 9-19-09	Rose Tree Park Thursday 10-8-09	<b>2009 Program Totals</b>	
Waste Material	Lbs. Collected	Lbs. Collected	Lbs. Collected	Lbs. Collected	Lbs. Collected	Percentage
Acids	458	196	161	1,068	1,883	0.4%
Aerosols	2,198	1,113	631	1,514	5,456	1.3%
Alkaline Waste	592	292	167	1,657	2,708	0.6%
Antifreeze	1,227	822	379	1,307	3,735	0.9%
Asbestos	254				254	0.1%
Batteries - Household	455	402	285	861	2,003	0.5%
Batteries - Lithium	19	37	6	37	99	0.0%
Batteries - NiCad	148	127	15	260	550	0.1%
Fire Extinguishers	145	125	77	161	508	0.1%
Flammable Liquids	8,457	3,838	3,075	6,955	22,325	5.2%
Flares	29				29	0.0%
Flammable Solids		29	23	36	88	0.0%
Fluorescent Tubes	372	593	232	246	1,443	0.3%
Hypochlorite Solution		470			470	0.1%
Latex & Non Haz Material	35,080	14,540	15,920	26,500	92,040	21.3%
Lead Acid Batteries		1,645			1,645	0.4%
Lead Paint Chips/Sinkers	-	8			8	0.0%
Mercury	124	15	10	12	161	0.0%
Nitric Acid		3			3	0.0%
Oil	3,137	2,281	1,253	3,345	10,016	2.3%
Oxidizer Liquid	113	153	88	115	469	0.1%
Oxidizer Solid	139	156	50	94	439	0.1%
Paint/Oil (Loose Pack)	3,849	2,387	608	1,591	8,435	1.9%
Pesticide Liquid	1,246	781	433	1,847	4,307	1.0%
Pesticide Solid	1,295	559	475	977	3,306	0.8%
PCB Ballast	59		13	730	802	0.2%
PCB Off-spec			351		351	0.1%
Phosphorous	4				4	0.0%
Propane - Large	2,420	960	560	2,250	6,190	1.4%
Propane - Small	286	142	62	228	718	0.2%
Refrigerant Gas			64		64	0.0%
Mapp Cylinders			3	2	5	0.0%
Sodium Cyanide				4	4	0.0%
Sodium Hydroxide		1,823			1,823	0.4%
Computer Equipment		82,382	1,228	165,416	249,026	57.5%
Acetylene Cylinder			5		5 Cylinders	0.0%
Oxygen Cylinders			7		7 Cylinders	0.0%
Pounds Recycled with Local Vendors at No Charge		380	3,900	1,800	6,080	1.4%
<b>Total Pounds Collected</b>	<b>67,606</b>	<b>116,259</b>	<b>30,081</b>	<b>219,013</b>	<b>432,959</b>	<b>100.0%</b>
<b>Total Cost</b>	<b>\$ 31,830.49</b>	<b>\$ 34,807.85</b>	<b>\$ 14,855.41</b>	<b>\$ 59,675.71</b>	<b>\$ 141,169.46</b>	
<b>Number of Participants</b>	<b>1,223</b>	<b>1,124</b>	<b>358</b>	<b>3,043</b>	<b>5,748</b>	
<b>Lbs. per Participant</b>	<b>55</b>	<b>103</b>	<b>84</b>	<b>72</b>		
<b>Cost per Participant</b>	<b>\$ 26.03</b>	<b>\$ 30.97</b>	<b>\$ 41.50</b>	<b>\$ 19.61</b>		
<b>Cost per Pound</b>	<b>\$ 0.47</b>	<b>\$ 0.30</b>	<b>\$ 0.49</b>	<b>\$ 0.27</b>		

SOURCE:

+Delaware County Solid Waste Authority



**TABLE 4-4**  
**Delaware County HHW / Computer / TV Collection Program +**  
**2010**

Waste Material	Marple Transfer Station 3-27-10	Emergency Services Training Ctr 4-24-10	Rose Tree Park 9-16-10	Upper Chichester Twp. Bldg. 10-9-10	2010 Program Totals	
	Lbs. Collected	Lbs. Collected	Lbs. Collected	Lbs. Collected	Lbs. Collected	Percentage
Acids	653	424	593	438	2,108	0.4%
Aerosols	1,488	1,229	2,094	2,185	6,996	1.4%
Alkaline Waste	424	411	1,582	300	2,717	0.6%
Antifreeze	955	860	1,611	1,357	4,783	1.0%
Asbestos	9	121	116		246	0.1%
Batteries - Household	754	425	985	1,386	3,550	0.7%
Batteries - Lithium	17	17	149	56	239	0.0%
Batteries - NiCad	83	142	356	598	1,179	0.2%
Calcium Carbide				2	2	0.0%
Fire Extinguishers	228		158	260	386	0.1%
Flammable Liquids	7,949	5,397	7,902	5,593	26,841	5.5%
Flammable Solids	18	24	40	48	130	0.0%
Fluorescent Tubes	189	847	1,150	283	2,469	0.5%
Latex & Non Haz Material	36,460	16,360	33,620	16,140	102,580	21.0%
Magnesium Aluminum	18				18	0.0%
Mercury	15	33	137	25	210	0.0%
Oil	3,965	4,406	4,439	5,141	17,951	3.7%
Oxidizer Liquid	148	147	346	234	875	0.2%
Oxidizer Solid	39	143	334	120	636	0.1%
Paint/Oil (Loose Pack)	3,472	2,686	3,850	2,809	12,817	2.6%
Pesticide Liquid	999	1,055	2,161	772	4,987	1.0%
Pesticide Solid	676	1,374	2,434	1,672	6,156	1.3%
PCB Ballast	10	121		202	333	0.1%
PCB Off-spec	368				368	0.1%
Propane - Large		120			120	0.0%
Propane - BBQ - 20 lb.	1,020	720	2,020	1,840	5,600	1.1%
Propane - Small	246	259	463	406	1,374	0.3%
Refrigerant Gas				5	5	0.0%
Computer Equipment		94,150	122,952	49,283	266,385	54.5%
Acetylene Cylinder				20	20	0.0%
Mapp Gas	20		24		44	0.0%
Oxygen Cylinders				3	3	0.0%
<b>Lead Acid Batteries - Local</b>	3,789	2,100	5,335	2,602	13,826	2.8%
<b>Cardboard - Local</b>	760	640	1,348	540	3,288	0.7%
<b>Total Pounds Collected</b>	<b>64,772</b>	<b>134,211</b>	<b>196,199</b>	<b>94,320</b>	<b>489,502</b>	<b>100.0%</b>
<b>Total Cost</b>	<b>\$ 30,730.57</b>	<b>\$ 40,448.47</b>	<b>\$ 62,123.48</b>	<b>\$ 33,276.47</b>	<b>\$ 166,578.99</b>	
<b>Number of Participants</b>	<b>1,085</b>	<b>1,259</b>	<b>2,622</b>	<b>936</b>	<b>5,902</b>	
<b>Lbs. per Participant</b>	<b>60</b>	<b>107</b>	<b>75</b>	<b>101</b>		
<b>Cost per Participant</b>	<b>\$ 28.32</b>	<b>\$ 32.13</b>	<b>\$ 23.69</b>	<b>\$ 35.55</b>		
<b>Cost per Pound</b>	<b>\$ 0.47</b>	<b>\$ 0.30</b>	<b>\$ 0.32</b>	<b>\$ 0.35</b>		

SOURCE:

+Delaware County Solid Waste Authority



**TABLE 4-4**  
**Delaware County HHW / Computer / TV Collection Program +**  
**2011**

	Emergency Services Training Ctr 4-9-11	Marple Transfer Station 5-7-11	Rose Tree Park 9-15-11	Upper Chichester Twp. Bldg. 10-15-11	<b>2011 Program Totals</b>	
Waste Material	Lbs. Collected	Lbs. Collected	Lbs. Collected	Lbs. Collected	Lbs. Collected	Percentage
Acids	133	460	562	232	1,387	0.3%
Aerosols	1,306	1,401	1,838	896	5,441	1.3%
Alkaline Waste	333	451	649	232	1,665	0.4%
Antifreeze	918	875	1,530	1,162	4,485	1.1%
Antifreeze Offspec Flamm		433			433	0.1%
Asbestos	-		83		83	0.0%
Batteries - Household	448	502	1,395	406	2,751	0.6%
Batteries - Lithium	37	12	46	68	163	0.0%
Batteries - NiCad	74	137	112	181	504	0.1%
Calcium Carbide	-					0.0%
Fire Extinguishers	197	267	256	126	846	0.2%
Flammable Liquids	4,474	6,272	7,807	4,679	23,232	5.5%
Flammable Solids	8	9	298	5	320	0.1%
Tetrachoroethylene				439	439	0.1%
Flares			46		46	0.0%
Fluorescent Tubes	232	518	433	184	1,367	0.3%
Latex & Non Haz Material	18,060	24,320	31,620	26,300	100,300	23.6%
Magnesium Aluminum	-				-	0.0%
Mercury	36	5	9	2	52	0.0%
Oil	1,986	3,853	3,529	2,337	11,705	2.8%
Oxidizer Liquid	116	101	127	101	445	0.1%
Oxidizer Solid	34	262	153	26	475	0.1%
Paint/Oil (Loose Pack)	2,365	3,591	3,528	2,298	11,782	2.8%
Pesticide Liquid	519	1,186	1,399	613	3,717	0.9%
Pesticide Solid	409	2,161	1,057	703	4,330	1.0%
PCB Ballast	-	29	9	23	61	0.0%
PCB Off-spec	-	427	377		804	0.2%
non PCB Ballast	26				26	0.0%
Propane - Large					-	
Propane - BBQ - 20 lb.	380	1,060	1,140	540	3,120	0.7%
Propane - Small	141	167	234	89	631	0.1%
Sodium Chloride		1			1	0.0%
Barium Chloride		1			1	0.0%
Refrigerant Gas					-	0.0%
Computer Equipment	82,510		101,419	46,047	229,976	54.2%
Air Cylinder				20	20	0.0%
Acetylene Cylinder					-	0.0%
Freon canister	20			60	80	0.0%
Carbon Dioxide			20		20	0.0%
Mapp Gas	20	50	15	10	95	0.0%
Oxygen Cylinders				40	40	0.0%
Lead Acid Batteries - Local	2,632	2,279	3,390	2,425	10,726	2.5%
Cardboard - Local	520	620	820	1,000	2,960	0.7%
<b>Total Pounds Collected</b>	<b>117,934</b>	<b>51,450</b>	<b>163,901</b>	<b>91,244</b>	<b>424,529</b>	<b>100%</b>
<b>Total Cost</b>	<b>\$ 32,780.31</b>	<b>\$ 27,662.84</b>	<b>\$ 51,515.75</b>	<b>\$ 29,290.24</b>	<b>\$ 141,249.14</b>	
<b>Number of Participants</b>	<b>1,100</b>	<b>803</b>	<b>2,354</b>	<b>1,075</b>	<b>5,332</b>	
<b>Lbs. per Participant</b>	<b>107</b>	<b>64</b>	<b>70</b>	<b>85</b>		
<b>Cost per Participant</b>	<b>\$ 29.80</b>	<b>\$ 34.45</b>	<b>\$ 21.88</b>	<b>\$ 27.25</b>		
<b>Cost per Pound</b>	<b>\$ 0.28</b>	<b>\$ 0.54</b>	<b>\$ 0.31</b>	<b>\$ 0.32</b>		

SOURCE:

+Delaware County Solid Waste Authority



**TABLE 4-4**  
**Delaware County HHW / E-Waste (Expanded) Collection Program +**  
**2012**

Waste Material	Emergency Services Training Ctr 3-24-12	Marple Transfer Station 4-21-12	Rose Tree Park 9-13-12	Upper Chichester Twp. Bldg. 10-13-12	2012 Program Totals	
	Lbs. Collected	Lbs. Collected	Lbs. Collected	Lbs. Collected	Lbs. Collected	Percentage
Acids	388	379	427	379	1,573	0.4%
Aerosols	825	1,502	1,694	1,173	5,194	1.3%
Alkaline Waste	439	496	1,248	724	2,907	0.7%
Antifreeze	802	1,131	1,156	1,137	4,226	1.1%
Asbestos	-	19	-	99	118	0.0%
Batteries - Household	258	468	1,104	707	2,537	0.6%
Batteries - Lithium	65	23	37	30	155	0.0%
Batteries - NiCad	166	52	145	131	494	0.1%
Fire Extinguishers	394	138	69	147	846	0.2%
Flammable Liquids	2,966	8,103	6,392	5,029	22,490	5.6%
Flammable Solids	24	-	29	7	60	0.0%
Tetrachoroethylene				-	439	0.0%
Flares		34	-		34	0.0%
Fluorescent Tubes	274	174	428	231	1,107	0.3%
Latex & Non Haz Material	14,460	22,920	19,720	17,640	74,740	18.7%
Mercury	26	77	25	8	136	0.0%
Oil	3,027	3,775	2,646	3,316	12,764	3.2%
Oxidizer Liquid	77	96	241	106	520	0.1%
Oxidizer Solid	189	81	266	155	691	0.2%
Paint/Oil (Loose Pack)	2,327	2,990	2,673	1,276	9,266	2.3%
Pesticide Liquid	608	1,289	1,374	917	4,188	1.0%
Pesticide Solid	637	1,460	939	1,213	4,249	1.1%
PCB Ballast	66	17	116	15	214	0.1%
PCB Off-spec	-	-	0	-	-	0.0%
non PCB Ballast	-	-	-	-	-	0.0%
Propane - BBQ - 20 lb.	527	810	225	960	2,522	0.6%
Propane - Small	246	123	173	253	795	0.2%
Refrigerant Gas		-			-	0.0%
Zinc		8			8	0.0%
Computer Equipment	46,712		119,560	70,391	236,663	59.1%
Air Cylinder				-	-	0.0%
Acetylene Cylinder					-	0.0%
Freon canister	-			75	75	0.0%
Carbon Dioxide			25		25	0.0%
Mapp Gas	-	-	-	-	-	0.0%
MT Large Cylinder			25		25	0.0%
Oxygen Cylinders		-		0	-	0.0%
Lead Acid Batteries - Local	2,288	2,440	2,995	2,041	9,764	2.4%
Cardboard - Local	540	-	980	580	2,100	0.5%
<b>Total Pounds Collected</b>	<b>78,331</b>	<b>48,605</b>	<b>164,712</b>	<b>108,740</b>	<b>400,388</b>	<b>100%</b>
<b>Total Cost</b>	<b>\$ 15,985.56</b>	<b>\$ 24,973.16</b>	<b>\$ 24,080.79</b>	<b>\$ 29,290.24</b>	<b>\$ 94,329.75</b>	
<b>Number of Participants</b>	<b>702</b>	<b>1,052</b>	<b>2,334</b>	<b>1,220</b>	<b>5,308</b>	
<b>Lbs. per Participant</b>	<b>112</b>	<b>46</b>	<b>71</b>	<b>89</b>		
<b>Cost per Participant</b>	<b>\$ 22.77</b>	<b>\$ 23.74</b>	<b>\$ 10.32</b>	<b>\$ 15.76</b>		
<b>Cost per Pound</b>	<b>\$ 0.20</b>	<b>\$ 0.51</b>	<b>\$ 0.15</b>	<b>\$ 0.27</b>		

SOURCE:

+Delaware County Solid Waste Authority

## **EXHIBIT 1-A**

### **RADIATION PROTECTION ACTION PLAN PERMIT MODIFICATIONS**

**ISSUED MAY 23, 2007**

**TRANSFER STATION NO. 1 – ID NO. 101188**

**TRANSFER STATION NO. 3 – ID NO. 101103**

#### **CONTENTS**

PA DEP Letter dated May 23, 2007 with attached Permit Modifications. Modification for TS No. 1 also includes approval of addition of two (2) Ludlum Model 475P-100 Waste Monitors.

DCSWA Letter dated May 1, 2007 with attached Application Revisions requested by PADEP Technical Review Letter dated April 23, 2007

PADEP Technical Review Letter dated April 23, 2007

PADEP Administrative Review Letter dated April 5, 2007

PADEP Letter dated March 12, 2007 acknowledging receipt of DCSWA Minor Permit Modification Application for Transfer Station No. 1

PADEP Letter dated March 1, 2007 acknowledging receipt of DCSWA Minor Permit Modification Application for Transfer Station No. 3

DCSWA Letter dated February 23, 2007 submitted Minor Permit Modification Applications for Transfer Stations No. 1 and No. 3:

- GIF Forms
- Form A's
- Form X's
- Revised RPAP

PADEP Letter dated December 20, 2006 identifying revisions required to be made to Proposed Updated Radiation Protection Action Plan (RPAP) which they received from DCSWA on October 27, 2006, prior to submission of Minor Permit Modification Applications for Transfer Stations No. 1 and No. 3





## EXHIBIT 1-A

Pennsylvania Department of Environmental Protection

2 East Main Street  
Norristown, PA 19401  
May 23, 2007

Southeast Regional Office

Phone: 484-250-5960  
Fax: 484-250-5961

Mr. Michael McNichol, Director  
Solid Waste Management Division  
Delaware County Solid Waste Authority  
1521 North-Province Road  
Media, PA 19063-1039

DELAWARE COUNTY  
SOLID WASTE AUTHORITY  
'07 MAY 29 P2:07

Re: Radiation Protection Action Plan Modifications  
Transfer Station Nos. 1 and 3  
Chester and Marple Townships  
Delaware County  
ID Nos. 101188 and 101103  
APS No. 267617, AUTH No. 672707  
APS No. 324518, AUTH No. 671482

Dear Mr. McNichol:

The Pennsylvania Department of Environmental Protection (Department) has reviewed your applications to modify the existing Radiation Protection Action Plans (RPAP) for Delaware County Transfer Station Nos. 1 and 3 located in Chester and Marple Townships, Delaware County. It has been determined that you have satisfied all applicable requirements necessary to perform this activity. Therefore, we have issued the enclosed permit in accordance with Act 97, the PA Solid Waste Management Act. Please direct any questions to Mr. James Wentzel, Chief, Engineering Services.

Compliance with the limitations and stipulations that have been set forth on your permit is mandatory.

Any person aggrieved by this action may appeal, pursuant to Section 4 of the Environmental Hearing Board Act, 35 P.S. Section 7514, and the Administrative Agency Law, 2 Pa.C.S. Chapter 5A, to the Environmental Hearing Board, Second Floor, Rachel Carson State Office Building, 400 Market Street, P.O. Box 8457, Harrisburg, PA 17105-8457, 717-787-3483. TDD users may contact the Board through the Pennsylvania Relay Service, 800-654-5984. Appeals must be filed with the Environmental Hearing Board within 30 days of receipt of written notice of this action unless the appropriate statute provides a different time period. Copies of the appeal form and the Board's rules of practice and procedure may be obtained from the Board. The appeal form and the Board's rules of practice and procedure are also available in braille or on audiotape from the Secretary to the Board at 717-787-3483. This paragraph does not, in and of itself, create any right of appeal beyond that permitted by applicable statutes and decisional law.



## EXHIBIT 1-A

Mr. Michael McNichol, Director

- 2 -

May 23, 2007

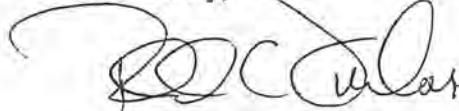
IF YOU WANT TO CHALLENGE THIS ACTION, YOUR APPEAL MUST REACH THE BOARD WITHIN 30 DAYS. YOU DO NOT NEED A LAWYER TO FILE AN APPEAL WITH THE BOARD.

IMPORTANT LEGAL RIGHTS ARE AT STAKE, HOWEVER, SO YOU SHOULD SHOW THIS DOCUMENT TO A LAWYER AT ONCE. IF YOU CANNOT AFFORD A LAWYER, YOU MAY QUALIFY FOR FREE PRO BONO REPRESENTATION. CALL THE SECRETARY TO THE BOARD (717-787-3483) FOR MORE INFORMATION.

Please take the time to complete the enclosed questionnaire and return it in the pre-addressed and stamped envelope. Your response will be taken into account, as we consider ways of improving our service to the public and regulated community.

Thank you for your cooperation.

Sincerely,



Ronald C. Furlan, P.E.  
Regional Manager  
Waste Management Program

Enclosures: Permit Modifications (2)  
Questionnaire

cc: Chester Township (w/Transfer Station No. 1 enclosure)  
Marple Township (w/Transfer Station No. 3 enclosure)  
Delaware County Planning Commission (w/both enclosures)  
Mr. Steart, P.E. (w/o enclosure)  
Re 30 (joh07wm)142-10

**EXHIBIT 1-A**COMMONWEALTH OF PENNSYLVANIA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
BUREAU OF WASTE MANAGEMENT

FORM NO. 13-A

**MODIFICATION TO SOLID WASTE DISPOSAL AND/OR PROCESSING PERMIT**

Under the provisions of Act 97, the Solid Waste Management Act of July 7, 1980, Solid Waste Permit Number 101188 issued on (date original permit was issued) January 23, 2005 to (permittee) Delaware County Solid Waste Authority  
(address) 1521 North Providence Road  
Media, PA 19063

is hereby modified as follows:

1. This amended Waste Management Permit is issued based upon application ID No. 101188 (APS No. 267617, AUTH No. 672707), which was received at the Southeast Regional Office of the Department of Environmental Protection (Department) on February 27, 2007. This amended waste management permit is to modify the existing Radiation Protection Action Plan (RPAP) for the Delaware County Transfer Station No.1 located in Chester Township, Delaware County.

This approved application consists of the following documents:

General Information Form received February 27, 2007  
Form A received February 27, 2007, and revised May 1, 2007  
Form X received February 27, 2007, and revised May 1, 2007  
Drawing, Site Plan received February 27, 2007

This approved application includes a response to the Department's April 23, 2007, technical review letter, received on May 1, 2007.

The contents of all the above listed documents are, hereby, incorporated in the permit as conditions with which the permittee must comply. Where the terms or conditions of this permit amendment differ from the above listed documents, the terms or conditions of this permit amendment shall govern. Except as may be specifically modified in this permit amendment, all other terms and conditions of the permit issued on January 23, 2005, and subsequently modified on March 17, 2006, remain in effect.

2. Nothing in this permit shall be construed to supersede, amend, or authorize violation of, the provisions of any valid and applicable local law, ordinance, or regulation, provided that said local law, ordinance, or regulation is not pre-empted by the Pennsylvania Solid Waste Management Act, the Act of July 7, 1980, Act 97, 35 P.S. 6018.101, et seq.

This modification shall be attached to the existing Solid Waste Permit described above and shall become a part thereof effective on (date) May 23, 2007

  
\_\_\_\_\_  
FOR THE DEPARTMENT OF ENVIRONMENTAL PROTECTION

# EXHIBIT 1-A

## COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION BUREAU OF WASTE MANAGEMENT

FORM NO. 13-A

### MODIFICATION TO SOLID WASTE DISPOSAL AND/OR PROCESSING PERMIT

Under the provisions of Act 97, the Solid Waste Management Act of July 7, 1980, Solid Waste Permit  
 Number 101188 issued on (date original permit was issued) January 23, 2005 to  
 (permittee) Delaware County Solid Waste Authority  
 (address) 1521 North Providence Road  
Media, PA 19063

is hereby modified as follows:

3. As a condition of this permit, and of the permittee's authority to conduct the activities authorized by this permit, the permittee hereby authorizes and consents to allow authorized employees or agents of the Department, without advanced notice or a search warrant, upon presentation of appropriate credentials, and without delay, to have access to and to inspect all areas on which solid waste management activities are being or will be conducted. The authorization and consent shall include consent to collect samples of waste, water or gases, to take photographs, to perform measurements, surveys and other tests, to inspect any monitoring equipment, to inspect the methods of operation, and to inspect and/or copy documents, books, or papers required by the Department to be maintained. This permit condition is referenced in accordance with Sections 608 and 610(7) of the Solid Waste Management Act, 35 P.S. Sections 6018.608 and 6018.610(7). This condition in no way limits any other powers granted under the Solid Waste Management Act.
  
4. This modification approves a general update to the RPAP and the addition of two (2) Ludlum Measurements, Inc., Model 475P-100 Waste Monitors with plastic scintillation detectors for the monitoring of incoming waste at the scales. These monitors can be used in addition to or in place of the existing Bicron Radiation Monitors. The facility's Health Physicist must provide staff personnel training in the operational procedures of the additional equipment. Alarm notifications should be made to the Radiation Protection Program Manager or any Health Physicist of the Department in the Southeast Regional Office by contacting them at 484-250-5950.

Re 30 (joh07wm)142-10a

This modification shall be attached to the existing Solid Waste Permit described above and shall become a part thereof effective on (date) May 23, 2007

  
 \_\_\_\_\_  
 FOR THE DEPARTMENT OF ENVIRONMENTAL PROTECTION

# EXHIBIT 1-A

COMMONWEALTH OF PENNSYLVANIA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
BUREAU OF WASTE MANAGEMENT

FORM NO. 13-A

## MODIFICATION TO SOLID WASTE DISPOSAL AND/OR PROCESSING PERMIT

Under the provisions of Act 97, the Solid Waste Management Act of July 7, 1980, Solid Waste Permit  
Number 101103 issued on (date original permit was issued) January 23, 2005 to  
(permittee) Delaware County Solid Waste Authority  
(address) 1521 North Providence Road  
Media, PA 19063

is hereby modified as follows:

1. This amended waste management permit is issued based upon application No. 101103 (APS No. 324518, AUTH No. 671432) which was received at the Southeast Regional Office of the Department of Environmental Protection (Department) on February 27, 2007. This amended waste management permit is to modify the existing Radiation Protection Action Plan (RPAP) for the Delaware County Transfer Station No. 3 located in Marple Township, Delaware County.

This approved application consists of the following documents:

General Information Form received February 27, 2007  
Form A received February 27, 2007, and revised May 1, 2007  
Form X received February 27, 2007, and revised May 1, 2007  
Drawing, Site Plan received February 27, 2007

This approved application includes a response to the Department's April 23, 2007, technical review letter, received on May 1, 2007.

The contents of all the above listed documents are, hereby, incorporated in the permit as conditions with which the permittee must comply. Where the terms or conditions of this permit amendment differ from the above listed documents, the terms or conditions of this permit amendment shall govern. Except as may be specifically modified in this permit amendment, all other terms and conditions of the permit issued on January 23, 2005, and subsequently modified on March 17, 2006, remain in effect.

This modification shall be attached to the existing Solid Waste Permit described above and shall become a part thereof effective on (date) May 23, 2007

  
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FOR THE DEPARTMENT OF ENVIRONMENTAL PROTECTION

# EXHIBIT 1-A

COMMONWEALTH OF PENNSYLVANIA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
BUREAU OF WASTE MANAGEMENT

FORM NO. 13-A

## MODIFICATION TO SOLID WASTE DISPOSAL AND/OR PROCESSING PERMIT

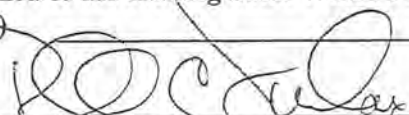
Under the provisions of Act 97, the Solid Waste Management Act of July 7, 1980, Solid Waste Permit  
Number 101103 issued on (date original permit was issued) January 23, 2005 to  
(permittee) Delaware County Solid Waste Authority  
(address) 1521 North Providence Road  
Media, PA 19063

is hereby modified as follows:

2. Nothing in this permit shall be construed to supersede, amend, or authorize violation of, the provisions of any valid and applicable local law, ordinance, or regulation, provided that said local law, ordinance, or regulation is not pre-empted by the Pennsylvania Solid Waste Management Act, the Act of July 7, 1980, Act 97, 35 P.S. 6018.101, et seq.
3. As a condition of this permit, and of the permittee's authority to conduct the activities authorized by this permit, the permittee hereby authorizes and consents to allow authorized employees or agents of the Department, without advanced notice or a search warrant, upon presentation of appropriate credentials, and without delay, to have access to and to inspect all areas on which solid waste management activities are being or will be conducted. The authorization and consent shall include consent to collect samples of waste, water or gases, to take photographs, to perform measurements, surveys and other tests, to inspect any monitoring equipment, to inspect the methods of operation, and to inspect and/or copy documents, books, or papers required by the Department to be maintained. This permit condition is referenced in accordance with Sections 608 and 610(7) of the Solid Waste Management Act, 35 P.S. Sections 6018.608 and 6018.610(7). This condition in no way limits any other powers granted under the Solid Waste Management Act.
4. This modification approves a general update to the RPAP. Alarm notifications should be made to Radiation Protection Program Manager or any Radiation Health Physicist of the Department in the Southeast Regional Office by contacting them at 484-250-5950.

Re 30(GJE07WM)143

This modification shall be attached to the existing Solid Waste Permit described above and shall become a part thereof effective on (date) May 23, 2007



FOR THE DEPARTMENT OF ENVIRONMENTAL PROTECTION



# EXHIBIT 1-B+

## DELAWARE COUNTY HOT LOAD LOGBOOK

Case Number	Date	Time	Contact Person	Contact Phone	Contact Address	Municipality	Disposition	Isotope	Description of Waste	Maximum Dose Rate on Truck (uRem/hr)	Maximum Dose Rate on Item (uRem/hr)	Driver	Days to Dissipate
TS1-386	1/13/2012	11:00 AM	Jason Young	610-494-6745	Plant #1	Ridley Twp.	Hot Load on truck M4148, Ridley Township. Reading 4.1.	I-131	single trash bag	30 uR/hr	4000 uR/hr	Robert Laird	Mar-12
TS1-387	1/18/2012	3:06 PM	Jason Young	610-494-6745	Plant #1	Commercial	Hot Load on truck C3036, Mascaro, Reading 2.7.	I-131	single trash bag	50 uR/hr	3000 uR/hr	Pat Beard	Apr-12
TS1-388	1/31/2012	6:00 AM	Steven Flynn	610-494-6745	Plant #1	Commercial	Hot Load on truck C1855, Waste Management, Reading 3.0.	Tech 99	single trash bag	20 uR/hr	30 uR/hr	Tom	2/3/2012
TS1-389	2/8/2012	8:45 AM	Steven Flynn	610-494-6745	Plant #1	Aston	Hot Load on truck M9556, Reading 2.8.	Indium 111	3 trash bags	100 uR/hr	300 uR/hr	Gary Junkerman	2/29/2012
TS1-390	2/8/2012	2:42 PM	Steven Flynn	610-494-6745	Plant #1	Brookhaven	Hot Load on truck M4155, JP Mascaro, Reading 3.4.	I-131	single trash bag	100 uR/hr	6000 uR/hr	Doug Scheidly	Apr-12
TS1-391	2/17/2012	9:47 AM	Steven Flynn	610-494-6745	Plant #1	Aston	Hot Load on truck M3944, Reading 5.9, Aston Truck.	Tech 99	single trash bag	300 uR/hr	700 uR/hr	Joe Swaworski	2/20/2012
TS1-392	2/17/2012	10:20 AM	Alex Piscitelli	610-497-8051	Covanta	Transfer Trailer	Hot Load on Transfer Trailer # 33, Plant #1	I-131					
TS1-393	2/21/2012	10:00 AM	Steven Flynn	610-494-6745	Plant #1	Middletown	Hot Load on truck M4202, Reading 3.3, Middletown.	I-131	2 trash bags	90 uR/hr	900 uR/hr	Dave Nassar	End of April
TS1-394	2/23/2012	9:28 AM	Steven Flynn	610-494-6745	Plant #1	Concord	Hot Load on truck M4160, Waste Management, Reading 7.5, Concord	I-131	multiple trash bags and loose debris	50 uR/hr	700 uR/hr	Phil Vellez	third week April
TS1-395	3/1/2012	10:40 AM	Jason Young	610-494-6745	Plant #1	Commercial	Hot Load on truck C1713, Reading 3.8, Commercial.	I-131	2 trash bags	10 uR/hr	5000 uR/hr	Joe Kugelmann	4th week June
TS1-396	3/9/2012	11:15 AM	Jason Young	610-494-6745	Plant #1	Prospect Park	Hot Load on truck M4183, Reading 3.6, Prospect Park	Tech 99	single trash bag	150 uR/hr	2000 uR/hr	Andrew Ginter	3/12/2012
TS1-397	3/14/2012	11:14 AM	Jason Young	610-494-6745	Plant #1	Upper Chichester	Hot Load on truck M4121, Reading 3.0, Upper Chichester.	I-131	single trash bag	40 uR/hr	500 uR/hr	Robert Powers	middle May 2012
TS1-398	3/23/2012	1:15 PM	Jason Young	610-494-6745	Plant #1	Commercial	Hot Load on truck C3005, Opendenaker, Reading 3.5.	I-131	1 trash bag & loose material	80 uR/hr	3500 uR/hr	James Cooper	3/26/2012
TS1-399	4/23/2012	9:37 AM	Joe Diluzio	610-494-6745	Plant #1	Lower Chichester	Hot Load on truck M4170, Reading 15.5, Lower Chichester.	I-131	2 trash bags & loose material	1000 uR/hr	1500 uR/hr	Edwin Colon	end June 2012
TS1-400	4/30/2012	2:26 PM	Joe Diluzio	610-494-6745	Plant #1	Bethel	Hot Load on truck M3908, Republic, Reading 3.0.	I-131	single trash bag	200 uR/hr	700 uR/hr	Anthony Holiston	last week June
TS1-401	5/7/2012	6:15 AM	Joe Diluzio	610-494-6745	Plant #1	Commercial	Hot Load on truck C1579, Commercial, Opendenaker.	I-131	2 trash bags	10 uR/hr	500 uR/hr	Ronald Moore	3rd week June
TS1-402	5/14/2012	3:15 PM	Joe Diluzio	610-494-6745	Plant #1	Bethel	Hot Load on truck M3908, Republic, Reading 5.1.	I-131	2 trash bags	50 uR/hr	1000 uR/hr	Anthony Holiston	4th week June
TS1-403	6/6/2012	11:45 AM	Steven Flynn	610-494-6745	Plant #1	Commercial	Hot Load on truck C3091, J.P. Mascaro & Sons, Reading 4.2, Rechecked on 6/7/2012 and it cleared.						
TS1-404	6/13/2012	7:02 AM	Steven Flynn	610-494-6745	Plant #1	Newtown Square	Hot Load on truck M4165, Republic, Newtown Square, Reading 4.4.	I-131	3 trash bags/kitty litter	45 uR/hr	5000 uR/hr	Antrell Brown	1st week Sept

SOURCE:  
+Delaware County Solid Waste Authority  
Revised: May, 2013

# EXHIBIT 1-B+

## DELAWARE COUNTY HOT LOAD LOGBOOK

Case Number	Date	Time	Contact Person	Contact Phone	Contact Address	Municipality	Disposition	Isotope	Description of Waste	Maximum Dose Rate on Truck (µRem/hr)	Maximum Dose Rate on Item (µRem/hr)	Driver	Days to Dissipate
TS1-405	6/13/2012	8:00 AM	Steven Flynn	610-494-6745	Plant #1	Commercial	Hot Load on truck C1554, Waste Management. Reading 11.5.	Tech 99	Riddle Memorial Hospital	60 uR/hr		Thomas Howbert	14-Jun-12
TS1-406	6/20/2012	11:10 AM	Steven Flynn	610-494-6745	Plant #1	Commercial	Hot Load on truck C1580, Opdenaker Commercial. Reading 4.0.	Radium 226	bubble tube	20 uR/hr	2500 uR/hr	Robert J. Home	DEP
TS1-407	6/20/2012	11:36 AM	Steven Flynn	610-494-6745	Plant #1	Brookhaven	Hot Load on truck M4155, JP Mascaro. Reading 4.2.	I-131	single trash bag	20 uR/hr	1500 uR/hr	Douglas Scheidly	4th week August
TS1-408	6/26/2012	2:05 PM	Steven Flynn	610-494-6745	Plant #1	Nether Providence	Hot Load on truck M4005, Doyle Disposal. Reading 5.7.	I-131	3 trash bags	150 uR/hr	2000 uR/hr	Ward Boyle	4th week August
TS1-409	7/11/2012	11:45 AM	Steven Flynn	610-494-6745	Plant #1	Brookhaven	Hot Load on truck M4167, JP Mascaro. Reading 5.1.	I-131	2 trash bags	800 uR/hr	1000 uR/hr	Kendal Thomas	2nd week Sept
TS1-410	8/9/2012	9:09 AM	Joe Diluzio	610-494-6745	Plant #1	Commercial	Hot Load on truck C3056, Waste Management. Reading 2.9.	Radium 226	5 smoke detectors	180 uR/hr	250 uR/hr	Glenn Pither	DEP
TS1-411	9/7/2012	12:25 PM	Joe Diluzio	610-494-6745	Plant #1	Ridley Twp.	Hot Load on truck M4211, Reading 4.0.	Tech 99	single trash bag	80 uR/hr	5000 uR/hr	Jay Volpone	9/11/2012
TS1-412	9/17/2012	2:15 PM	Joe Diluzio	610-494-6745	Plant #1	Tinicum	Hot Load on truck M3996, Tinicum. Reading 4.5.	I-131	single trash bag	100 uR/hr	200 uR/hr	Robert Dukes	end of October
TS1-413	9/25/2012	10:15 AM	Ernest Blizzard	610-494-6745	Plant #1	Aston	Hot Load on truck M3956, Aston Township. Reading 12.5	I-131	2 trash bags	1000 uR/hr	6000 uR/hr	Gary Junkerman	3rd week December
TS1-414	9/25/2012	10:35 AM	Ernest Blizzard	610-494-6745	Plant #1	Middletown	Hot Load on truck M4246, Laxton. Reading 9.2, Middletown	I-131	3 trash bags	1200 uR/hr	5500 uR/hr	Paul Monte	3rd week December
TS1-415	10/5/2012	12:00 PM	Joe Diluzio	610-494-6745	Plant #1	Folcroft	Hot Load on truck M4108, Suburban. Reading 3.5, Folcroft	Indium 111	2 trash bags	40 uR/hr	3500 uR/hr	David Chappelle	mid Nov 2012
TS1-416	10/16/2012	1:30 PM	Joe Diluzio	610-494-6745	Plant #1	Chester City	Hot Load on truck M3764, Republic. Reading 2.7, Chester City	Indium 111	multiple trash bags	20 uR/hr	6500 uR/hr	Dewey Crawford	mid January 2013
TS1-417	10/31/2012	10:20 AM	Joe Diluzio	610-494-6745	Plant #1	Upper Chichester	Hot Load on truck M4116, Upper Chichester. Reading 3.5.	I-131	single trash bag	25 uR/hr	330 uR/hr	Sandino Montellor	1st week December
TS1-418	11/5/2012	10:00 AM	Steven Flynn	610-494-6745	Plant #1	Prospect Park	Hot Load on truck M4183, Reading 3.2, Prospect Park	I-131	2 trash bags	25 uR/hr	1500 uR/hr	Joseph Batchelder	2nd week January
TS1-419	11/15/2012	10:47 AM	Steven Flynn	610-494-6745	Plant #1	Middletown/ Nether Prov.	Hot Load on truck M4246, Laxton. Reading 21.5, Middletown/ Nether Prov.	I-131	single trash bag	250 uR/hr	5500 uR/hr	Paul Monte	1st week February
TS1-420	11/19/2012	9:15 AM	Steven Flynn	610-494-6745	Plant #1	Commercial	Hot Load on truck M4260, Opdenaker Commercial Load. Reading 5.9.	I-131	Loose kitty litter	200 uR/hr	3000 uR/hr	Larry Fabulen	1st week February
TS1-421	11/26/2012	9:30 AM	Steven Flynn	610-494-6745	Plant #1	Commercial	Hot Load on truck M4260, Opdenaker Commercial Load. Reading 5.3.	I-131	several bags of kitty litter	90 uR/hr	6000 uR/hr	Larry Fabulen	3rd week February
TS1-422	12/5/2012	11:08 AM	Joe Diluzio	610-494-6745	Plant #1	Chester Twp.	Hot Load on truck M3889, Suburban. Chester Twp. Reading off the scales.	Indium 111	2 trash bags	1000 uR/hr	7500 uR/hr	Mike Hammond	1st week March
TS1-423	12/20/2012	12:27 PM	Alex Piscitelli	610-497-8051	Covanta	Transfer Trailer	Hot Load on Transfer Trailer # 91.	I-131					
TS1-424	12/24/2012	10:27 AM	Joe Diluzio	610-494-6745	Plant #1	Republic	Hot Load on truck M4267, Reading 5.5, Chester City.	I-131	2 trash bags	60 uR/hr	300 uR/hr	Dewey Crawford	last week January 2013

SOURCE:  
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Revised: May, 2013

# EXHIBIT 1-B+

## DELAWARE COUNTY HOT LOAD LOGBOOK

Case Number	Date	Time	Contact Person	Contact Phone	Contact Address	Municipality	Disposition	Isotope	Description of Waste	Maximum Dose Rate on Truck (µRem/hr)	Maximum Dose Rate on Item (µRem/hr)	Driver	Days to Dissipate end of February
TS3-423	1/30/2012	8:36 AM	Joe Diluzio	610-544-7924	Plant # 3	Newtown Square	Hot Load on truck M4190. J & K. Reading 2.8. Newtown Square	I-131	bags/kitty litter	30 uR/hr	900 uR/hr	Dennis Kounnas	February
TS3-424	2/17/2012	11:18 AM	Joe Diluzio	610-544-7924	Plant # 3	Upper Darby	Hot Load on truck M3689. Reading 6.5. Upper Darby	Tech 99	single trash bag	NONE	5000 uR/hr	Joe DeFrank	22-Feb
TS3-425	2/22/2012	9:14 AM	Joe Diluzio	610-544-7924	Plant # 3	Haverford	Hot Load on truck M4000. Reading 3.0. Haverford	I-131	single trash bag	100 uR/hr	4000 uR/hr	Patrick McNellis	April
TS3-426	2/23/2012	9:30 AM	Joe Diluzio	610-544-7924	Plant # 3	Haverford	Hot Load on truck M3825. Reading 12.6. Haverford.	I-131	single trash bag	400 uR/hr	6000 uR/hr	Warren Oertel	third week May
TS3-427	2/24/2012	2:00 PM	Joe Diluzio	610-544-7924	Plant # 3	Millbourne	Hot Load on truck M4203. Suburban. Reading 10.0. Millbourne.	I-131	single trash bag	100 uR/hr	5000 uR/hr	Robert Cartledge	2nd week May
TS3-428	2/28/2012	10:37 AM	Joe Diluzio	610-544-7924	Plant # 3	Upper Darby	Hot Load on truck M3600. Upper Darby. Reading 16.5.	I-131	multiple trash bags	1000 uR/hr	5500 uR/hr	Francis Long	3rd week May
TS3-429	2/28/2012	10:45 AM	Joe Diluzio	610-544-7924	Plant # 3	Upper Darby	Hot Load on truck M4030. Upper Darby. Reading 19.5	I-131	multiple trash bags	700 uR/hr	4000 uR/hr	Joe Simmonds	2nd week May
TS3-430	4/30/2012	10:52 AM	Steve Flynn	610-544-7924	Plant # 3	Haverford	Hot Load on truck M3928. Suburban Waste. Sharon Hill. Reading 3.4.	I-131	3 trash bags	200 uR/hr	1000 uR/hr	Warren Oertel	1st week July
TS3-431	5/1/2012	2:43 PM	Jason Young	610-544-7924	Plant # 3	Sharon Hill	Hot Load on truck M4154. J.P. Mascaro. Ridley Park. Reading 7.0	I-131	2 trash bags	120 uR/hr	300 uR/hr	Depiso	1st week June
TS3-432	5/1/2012	12:25 PM	Jason Young	610-544-7924	Plant # 3	Ridley Park	Hot Load on Trasfer Trailer 333908. Covanta. Transfer Trailer	I-131	3 thrash bags left side of trailer	1500 uR/hr	8000 uR/hr	Terrence Frymoyer	1st week August
TS3-433	5/16/2012	9:46 AM	Covanta	610-497-1451	Covanta	Newtown Square	Hot Load on truck M4185. Republic. Reading 7.5. Newtown Square.	I-131	bags/kitty litter	50 uR/hr	7500 uR/hr	Mike Berger	1st week September
TS3-434	6/6/2012	7:15 AM	Joe Diluzio	610-544-7924	Plant # 3	Springfield	Hot Load on Truck M4186. Springfield. Reading 4.5.	Tech 99	single trash bag	500 uR/hr	4000 uR/hr	Robert Clark	June 11th
TS3-435	6/8/2012	11:15 AM	Joe Diluzio	610-544-7924	Plant # 3	Springfield							
TS3-436	6/8/2012	2:30 PM	Joe Diluzio	610-544-7924	Plant # 3	Newtown Square	Hot Load on truck M4132. Suburban Waste. Reran truck on 6/11/2012 and it was cleared.					Chris Bizzari	
TS3-437	6/18/2012	9:53 AM	Joe Diluzio	610-544-7924	Plant # 3	Darby Township	Hot Load on truck M4150. City Wide. Darby Twp. Reading 3.5.	I-131	single trash bag	250 uR/hr	500 uR/hr	Mike Heller	3rd week August
TS3-438	6/18/2012	1:45 PM	Joe Diluzio	610-544-7924	Plant # 3	Clifton Heights	Hot Load on truck M4203. Suburban. Reading 6.0. Clifton Heights	I-131	single trash bag	1000 uR/hr	2000 uR/hr	Robert Cartledge	last week August
TS3-439	7/30/2012	11:27 AM	Earnest Blizzard	610-544-7924	Plant # 3	Upper Darby	Hot Load on truck M4189. Upper Darby. Reading 4.1.	I-131	2 trash bags	400 uR/hr	2000 uR/hr	Darnell Skinner	2nd week October
TS3-440	8/13/2012	10:00 AM	Steve Flynn	610-544-7924	Plant # 3	Commercial	Hot Load on C1447. Pinciotti. Commercial. Reading 6.6	I-131	single trash bag/foose trash	2000 uR/hr	5500 uR/hr	Steven Pasternack	2nd week December
TS3-441	9/17/2012	12:56 PM	Steve Flynn	610-544-7924	Plant # 3	Upper Darby	Hot Load on truck M4189. Upper Darby. Reading 10.1.	I-131	4 trash bags	150 uR/hr	6000 uR/hr	Darnell Skinner	2nd week December
TS3-442	11/2/2012	9:10 AM	Joe Diluzio	610-544-7924	Plant # 3	Commercial	Hot Load on truck C2019. Reading 5.0. Waste Management. Commercial.	Tech 99	2 trash bags	200 uR/hr	500 uR/hr	Vince Rhym	5-Nov-12
TS3-443	11/19/2012	1:23 PM	Joe Diluzio	610-544-7924	Plant # 3	Radnor	Hot Load on truck M4009. Radnor Twp. Reading 9.0.	I-131	2 lg. & 5 small bags	1000 uR/hr	4000 uR/hr	Germaine Broken	1st week February
TS3-444	12/13/2012	11:38 AM	Covanta	610-497-1451	Covanta	Transfer Trailer	Hot Load on Transfer Trailer.	I-131	Right side Top			Eric Mazis	

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**EXHIBIT 1-B+**  
**DELAWARE COUNTY HOT LOAD LOGBOOK**

Case Number	Date	Time	Contact Person	Contact Phone	Contact Address	Municipality	Disposition	Isotope	Description of Waste	Maximum Dose Rate on Truck (µRem/hr)	Maximum Dose Rate on Item (µRem/hr)	Driver	Days to Dissipate
TS1-386	1/13/2012	11:00 AM	Jason Young	610-494-6745	Plant #1	Ridley Twp.	Hot Load on truck M4148, Ridley Township, Reading 4.1.	I-131	single trash bag	30 uR/hr	4000 uR/hr	Robert Laird	Mar-12
TS1-387	1/18/2012	3:06 PM	Jason Young	610-494-6745	Plant #1	Commercial	Hot Load on truck C3036, Mascaro, Reading 2.7.	I-131	single trash bag	50 uR/hr	3000 uR/hr	Pat Beard	Apr-12
TS1-388	1/31/2012	8:00 AM	Steven Flynn	610-494-6745	Plant #1	Commercial	Hot Load on truck C1855, Waste Management Reading 3.0.	Tech 99	single trash bag	20 uR/hr	30 uR/hr	Tom	2/3/2012
TS1-389	2/8/2012	8:45 AM	Steven Flynn	610-494-6745	Plant #1	Aston	Hot Load on truck M3956, Reading 2.8.	Indium 111	3 trash bags	100 uR/hr	300 uR/hr	Gary Junkerman	2/29/2012
TS1-390	2/8/2012	2:42 PM	Steven Flynn	610-494-6745	Plant #1	Brookhaven	Hot Load on truck M4155, JP Mascaro, Reading 3.4.	I-131	single trash bag	100 uR/hr	6000 uR/hr	Doug Scheldly	Apr-12
TS1-391	2/17/2012	9:47 AM	Steven Flynn	610-494-6745	Plant #1	Aston	Hot Load on truck M3944, Reading 5.9. Aston	Tech 99	single trash bag	300 uR/hr	700 uR/hr	Joe Swaworski	2/20/2012
TS1-392	2/17/2012	10:20 AM	Alex Picitelli	610-497-8051	Covanta	Transfer Trailer	Hot Load on Transfer Trailer #83, Plant #1 Truck.	I-131					
TS1-393	2/21/2012	10:00 AM	Steven Flynn	610-494-6745	Plant #1	Middletown	Hot Load on truck M4202, Reading 3.3, Middletown.	I-131	2 trash bags	90 uR/hr	900 uR/hr	Dave Nassar	End of April
TS1-394	2/23/2012	9:28 AM	Steven Flynn	610-494-6745	Plant #1	Concord	Hot Load on truck M4160, Waste Management, Reading 7.5, Concord	I-131	multiple trash bags and loose debris	50 uR/hr	700 uR/hr	Phil Vellez	third week April
TS1-395	3/1/2012	10:40 AM	Jason Young	610-494-6745	Plant #1	Commercial	Hot Load on truck C1713, Reading 3.8, Commercial.	I-131	2 trash bags	10 uR/hr	5000 uR/hr	Joe Kugelman	4th week June
TS1-396	3/9/2012	11:15 AM	Jason Young	610-494-6745	Plant #1	Prospect Park	Hot Load on truck M4183, Reading 3.6, Prospect Park	Tech 99	single trash bag	150 uR/hr	2000 uR/hr	Andrew Ginter	3/12/2012
TS1-397	3/14/2012	11:14 AM	Jason Young	610-494-6745	Plant #1	Upper Chichester	Hot Load on truck M4121, Reading 3.0, Upper Chichester.	I-131	single trash bag	40 uR/hr	500 uR/hr	Robert Powers	middle May 2012
TS1-398	3/23/2012	1:15 PM	Jason Young	610-494-6745	Plant #1	Commercial	Hot Load on truck C3005, Opdenaker, Reading 3.5.	I-131	1 trash bag & loose material	80 uR/hr	3500 uR/hr	James Cooper	3/26/2012
TS1-399	4/23/2012	9:37 AM	Joe Diluzio	610-494-6745	Plant #1	Lower Chichester	Hot Load on truck M4170, Reading 15.5, Lower Chichester.	I-131	2 trash bags & loose material	1000 uR/hr	1500 uR/hr	Edwin Colon	end June 2012
TS1-400	4/30/2012	2:26 PM	Joe Diluzio	610-494-6745	Plant #1	Bethel	Hot Load on truck M3908, Republic, Reading 3.0.	I-131	single trash bag	200 uR/hr	700 uR/hr	Anthony Holston	last week June
TS1-401	5/7/2012	8:15 AM	Joe Diluzio	610-494-6745	Plant #1	Commercial	Hot Load on truck C1579, Commercial, Opdenaker.	I-131	2 trash bags	10 uR/hr	500 uR/hr	Ronald Moore	3rd week June
TS1-402	5/14/2012	3:15 PM	Joe Diluzio	610-494-6745	Plant #1	Bethel	Hot Load on truck M3908, Republic, Reading 5.1.	I-131	2 trash bags	50 uR/hr	1000 uR/hr	Anthony Holston	4th week June
TS1-403	6/6/2012	11:45 AM	Steven Flynn	610-494-6745	Plant #1	Commercial	Hot Load on truck C3091, J.P. Mascaro & Sons, Reading 4.2, Rechecked on 6/7/2012 and it cleared.						
TS1-404	6/13/2012	7:02 AM	Steven Flynn	610-494-6745	Plant #1	Newtown Square	Hot Load on truck M4165, Republic, Newtown Square, Reading 4.4.	I-131	3 trash bags/kitty litter	45 uR/hr	5000 uR/hr	Antrill Brown	1st week Sept

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Revised: May, 2013



# EXHIBIT 1-B+

## DELAWARE COUNTY HOT LOAD LOGBOOK

Case Number	Date	Time	Contact Person	Contact Phone	Contact Address	Municipality	Disposition	Isotope	Description of Waste	Maximum Dose Rate on Truck (µRem/hr)	Maximum Dose Rate on Item (µRem/hr)	Driver	Days to Dissipate
TS1-405	6/13/2012	8:00 AM	Steven Flynn	610-494-6745	Plant #1	Commercial	Hot Load on truck C1554. Waste Management. Reading 11.5.	Tech 99	Riddle Memorial Hospital	60 uR/hr		Thomas Howbert	14-Jun-12
TS1-406	6/20/2012	11:10 AM	Steven Flynn	610-494-6745	Plant #1	Commercial	Hot Load on truck C1580. Opendenaker. Commercial. Reading 4.0.	Radium 226	bubble tube	20 uR/hr	2500 uR/hr	Robert J. Horne	DEP
TS1-407	6/20/2012	11:36 AM	Steven Flynn	610-494-6745	Plant #1	Brookhaven	Hot Load on truck M4155. JP Mascaro. Reading 4.2.	I-131	single trash bag	20 uR/hr	1500 uR/hr	Douglas Scheidly	4th week August
TS1-408	6/26/2012	2:05 PM	Steven Flynn	610-494-6745	Plant #1	Nether Providence	Hot Load on truck M4005. Doyle Disposal. Reading 5.7.	I-131	3 trash bags	150 uR/hr	2000 uR/hr	Ward Boyle	4th week August
TS1-409	7/11/2012	11:45 AM	Steven Flynn	610-494-6745	Plant #1	Brookhaven	Hot Load on truck M4167. JP Mascaro. Reading 5.1.	I-131	2 trash bags	800 uR/hr	1000 uR/hr	Kendal Thomas	2nd week Sept
TS1-410	8/9/2012	9:08 AM	Joe Diluzio	610-494-6745	Plant #1	Commercial	Hot Load on truck C3056. Waste Management. Reading 2.9.	Radium 226	5 smoke detectors	180 uR/hr	250 uR/hr	Glenn Pitner	DEP
TS1-411	9/7/2012	12:25 PM	Joe Diluzio	610-494-6745	Plant #1	Ridley Twp.	Hot Load on truck M4211. Reading 4.0. Riudley Twp.	Tech 99	single trash bag	80 uR/hr	5000 uR/hr	Jay Volpone	9/11/2012
TS1-412	9/17/2012	2:15 PM	Joe Diluzio	610-494-6745	Plant #1	Tinicum	Hot Load on truck M3996. Tinicum. Reading 4.5.	I-131	single trash bag	100 uR/hr	200 uR/hr	Robert Dukes	end of October
TS1-413	9/25/2012	10:15 AM	Ernest Blizzard	610-494-6745	Plant #1	Aston	Hot Load on truck M3956. Aston Township. Reading 12.5	I-131	2 trash bags	1000 uR/hr	6000 uR/hr	Gary Junkerman	3rd week December
TS1-414	9/25/2012	10:35 AM	Ernest Blizzard	610-494-6745	Plant #1	Middletown	Hot Load on truck M4246. Laxton. Reading 9.2. Middletown	I-131	3 trash bags	1200 uR/hr	5500 uR/hr	Paul Monte	3rd week December
TS1-415	10/5/2012	12:00 PM	Joe Diluzio	610-494-6745	Plant #1	Folcroft	Hot Load on truck M4108. Suburban. Reading 3.5. Folcroft	Indium 111	2 trash bags	40 uR/hr	3500 uR/hr	David Chappelle	mid Nov 2012
TS1-416	10/18/2012	1:30 PM	Joe Diluzio	610-494-6745	Plant #1	Chester City	Hot Load on truck M3764. Republic. Reading 2.7. Chester City	Indium 111	multiple trash bags	20 uR/hr	6500 uR/hr	Dewey Crawford	mid January 2013
TS1-417	10/31/2012	10:20 AM	Joe Diluzio	610-494-6745	Plant #1	Upper Chichester	Hot Load on truck M4116. Upper Chichester. Reading 3.5.	I-131	single trash bag	25 uR/hr	330 uR/hr	Sandino Montellor	1st week December
TS1-418	11/5/2012	10:00 AM	Steven Flynn	610-494-6745	Plant #1	Prospect Park	Hot Load on truck M4183. Reading 3.2. Prospect Park	I-131	2 trash bags	25 uR/hr	1500 uR/hr	Joseph Batchelder	2nd week January
TS1-419	11/15/2012	10:47 AM	Steven Flynn	610-494-6745	Plant #1	Middletown/ Nether Prov.	Hot Load on truck M4246. Laxton. Reading 21.5. Middletown/ Nether Prov.	I-131	single trash bag	250 uR/hr	5500 uR/hr	Paul Monte	1st week February
TS1-420	11/19/2012	9:15 AM	Steven Flynn	610-494-6745	Plant #1	Commercial	Hot Load on truck M4260. Opendenaker. Commercial Load. Reading 5.9.	I-131	Loose kitty litter	200 uR/hr	3000 uR/hr	Larry Fabulen	1st week February
TS1-421	11/26/2012	9:30 AM	Steven Flynn	610-494-6745	Plant #1	Commercial	Hot Load on truck M4260. Opendenaker. Commercial Load. Reading 5.3.	I-131	several bags of kitty litter	90 uR/hr	6000 uR/hr	Larry Fabulen	3rd week February
TS1-422	12/5/2012	11:08 AM	Joe Diluzio	610-494-6745	Plant #1	Chester Twp.	Hot Load on truck M3889. Suburban. Chester Twp. Reading off the scales.	Indium 111	2 trash bags	1000 uR/hr	7500 uR/hr	Mike Hammond	1st week March
TS1-423	12/20/2012	12:27 PM	Alex Piscitelli	610-497-8051	Covanta	Transfer Trailer	Hot Load on Transfer Trailer # 91.	I-131					
TS1-424	12/24/2012	10:27 AM	Joe Diluzio	610-494-6745	Plant #1	Republic	Hot Load on truck M4267. Reading 5.5. Chester City.	I-131	2 trash bags	60 uR/hr	300 uR/hr	Dewey Crawford	last week January 2013

SOURCE:  
 +Delaware County Solid Waste Authority  
 Revised: May, 2013



# EXHIBIT 1-B+

## DELAWARE COUNTY HOT LOAD LOGBOOK

Case Number	Date	Time	Contact Person	Contact Phone	Contact Address	Municipality	Disposition	Isotope	Description of Waste	Maximum Dose Rate on Truck (uRem/hr)	Maximum Dose Rate on Item (uRem/hr)	Driver	Days to Dissipate end of February
TSS-423	1/30/2012	9:36 AM	Joe Diluzio	610-544-7924	Plant # 3	Newtown Square	Hot Load on truck M4190. J & K. Reading 2.8. Newtown Square	I-131	bags/kitty litter	30 uR/hr	900 uR/hr	Dennis Koumnas	22-Feb
TSS-424	2/17/2012	11:18 AM	Joe Diluzio	610-544-7924	Plant # 3	Upper Darby	Hot Load on truck M3688. Reading 6.5. Upper Darby	Tech 99	single trash bag	NONE	5000 uR/hr	Joe DeFrank	
TSS-425	2/22/2012	9:14 AM	Joe Diluzio	610-544-7924	Plant # 3	Haverford	Hot Load on truck M4000. Reading 3.0. Haverford	I-131	single trash bag	100 uR/hr	4000 uR/hr	Patrick McNellis	April
TSS-426	2/23/2012	9:30 AM	Joe Diluzio	610-544-7924	Plant # 3	Haverford	Hot Load on truck M3825. Reading 12.6. Haverford.	I-131	single trash bag	400 uR/hr	6000 uR/hr	Warren Oertel	third week May
TSS-427	2/24/2012	2:00 PM	Joe Diluzio	610-544-7924	Plant # 3	Millbourne	Hot Load on truck M4203. Suburban. Reading 10.0. Millbourne.	I-131	single trash bag	100 uR/hr	5000 uR/hr	Robert Cartledge	2nd week May
TSS-428	2/28/2012	10:37 AM	Joe Diluzio	610-544-7924	Plant # 3	Upper Darby	Hot Load on truck M3800. Upper Darby. Reading 16.5.	I-131	multiple trash bags	1000 uR/hr	5500 uR/hr	Francis Long	3rd week May
TSS-429	2/28/2012	10:45 AM	Joe Diluzio	610-544-7924	Plant # 3	Upper Darby	Hot Load on truck M4030. Upper Darby. Reading 19.5	I-131	multiple trash bags	700 uR/hr	4000 uR/hr	Joe Simmonds	2nd week May
TSS-430	4/30/2012	10:52 AM	Steve Flynn	610-544-7924	Plant # 3	Haverford	Hot Load on truck M3613. Haverford. Reading 4.6.	I-131	3 trash bags	200 uR/hr	1000 uR/hr	Warren Oertel	1st week July
TSS-431	5/1/2012	2:43 PM	Jason Young	610-544-7924	Plant # 3	Sharon Hill	Hot Load on truck M3928. Suburban Waste. Sharon Hill. Reading 3.4.	I-131	2 trash bags	120 uR/hr	300 uR/hr	Edward Deplso	1st week June
TSS-432	5/11/2012	12:25 PM	Jason Young	610-544-7924	Plant # 3	Ridley Park	Hot Load on truck M4154. J.P. Mascaro. Ridley Park. Reading 7.0	I-131	3 trash bags	1500 uR/hr	8000 uR/hr	Terrence Frymoyer	1st week August
TSS-433	5/16/2012	9:46 AM	Covanta	610-497-1451	Covanta	Transfer Trailer	Hot Load on Transfer Trailer 333908. Covanta.	I-131	left side of trailer			Dennis Smith	
TSS-434	6/6/2012	7:15 AM	Joe Diluzio	610-544-7924	Plant # 3	Newtown Square	Hot Load on truck M4165. Republic. Reading 7.5. Newtown Square.	I-131	bags/kitty litter	50 uR/hr	7500 uR/hr	Mike Berger	1st week September
TSS-435	6/6/2012	11:15 AM	Joe Diluzio	610-544-7924	Plant # 3	Springfield	Hot Load on Truck M4186. Springfield. Reading 4.5.	Tech 99	single trash bag	500 uR/hr	4000 uR/hr	Robert Clark	June 11th
TSS-436	6/6/2012	2:30 PM	Joe Diluzio	610-544-7924	Plant # 3	Newtown Square	Hot Load on truck M4132. Suburban Waste. Reran truck on 6/11/2012 and it was cleared.					Chris Bizzari	
TSS-437	6/18/2012	9:53 AM	Joe Diluzio	610-544-7924	Plant # 3	Darby Township	Hot Load on truck M4150. City Wide. Darby Twp. Reading 3.5.	I-131	single trash bag	250 uR/hr	500 uR/hr	Mike Heller	3rd week August
TSS-438	6/18/2012	1:45 PM	Joe Diluzio	610-544-7924	Plant # 3	Clifton Heights	Hot Load on truck M4203. Suburban. Reading 6.0. Clifton Heights	I-131	single trash bag	1000 uR/hr	2000 uR/hr	Robert Cartledge	last week August
TSS-439	7/30/2012	11:27 AM	Earnest Blizzard	610-544-7924	Plant # 3	Upper Darby	Hot Load on truck M4189. Upper Darby. Reading 4.1.	I-131	2 trash bags	400 uR/hr	2000 uR/hr	Darnell Skinner	2nd week October
TSS-440	9/13/2012	10:00 AM	Steve Flynn	610-544-7924	Plant # 3	Commercial	Hot Load on C1447. Pinciotti. Commercial. Reading 6.6	I-131	single trash bag/boose trash	2000 uR/hr	5500 uR/hr	Steven Pasternack	2nd week December
TSS-441	9/17/2012	12:56 PM	Steve Flynn	610-544-7924	Plant # 3	Upper Darby	Hot Load on truck M4189. Upper Darby. Reading 10.1.	I-131	4 trash bags	150 uR/hr	6000 uR/hr	Darnell Skinner	2nd week December
TSS-442	11/2/2012	9:10 AM	Joe Diluzio	610-544-7924	Plant # 3	Commercial	Hot Load on truck C2019. Reading 5.0. Waste Management. Commercial.	Tech 99	2 trash bags	200 uR/hr	500 uR/hr	Vince Rhym	5-Nov-12
TSS-443	11/19/2012	1:23 PM	Joe Diluzio	610-544-7924	Plant # 3	Radnor Transfer Trailer	Hot Load on truck M4009. Radnor Twp. Reading 9.0.	I-131	2 lg. & 5 small bags	1000 uR/hr	4000 uR/hr	Germaine Broken	1st week February
TSS-444	12/13/2012	11:39 AM	Covanta	610-497-1451	Covanta	Transfer Trailer	Hot Load on Transfer Trailer.	I-131	Right side Top			Eric Mazis	

SOURCE:  
 +Delaware County Solid Waste Authority  
 Revised: May, 2013

# Exhibit 2-A Delaware County Municipal Waste Transfer Sites

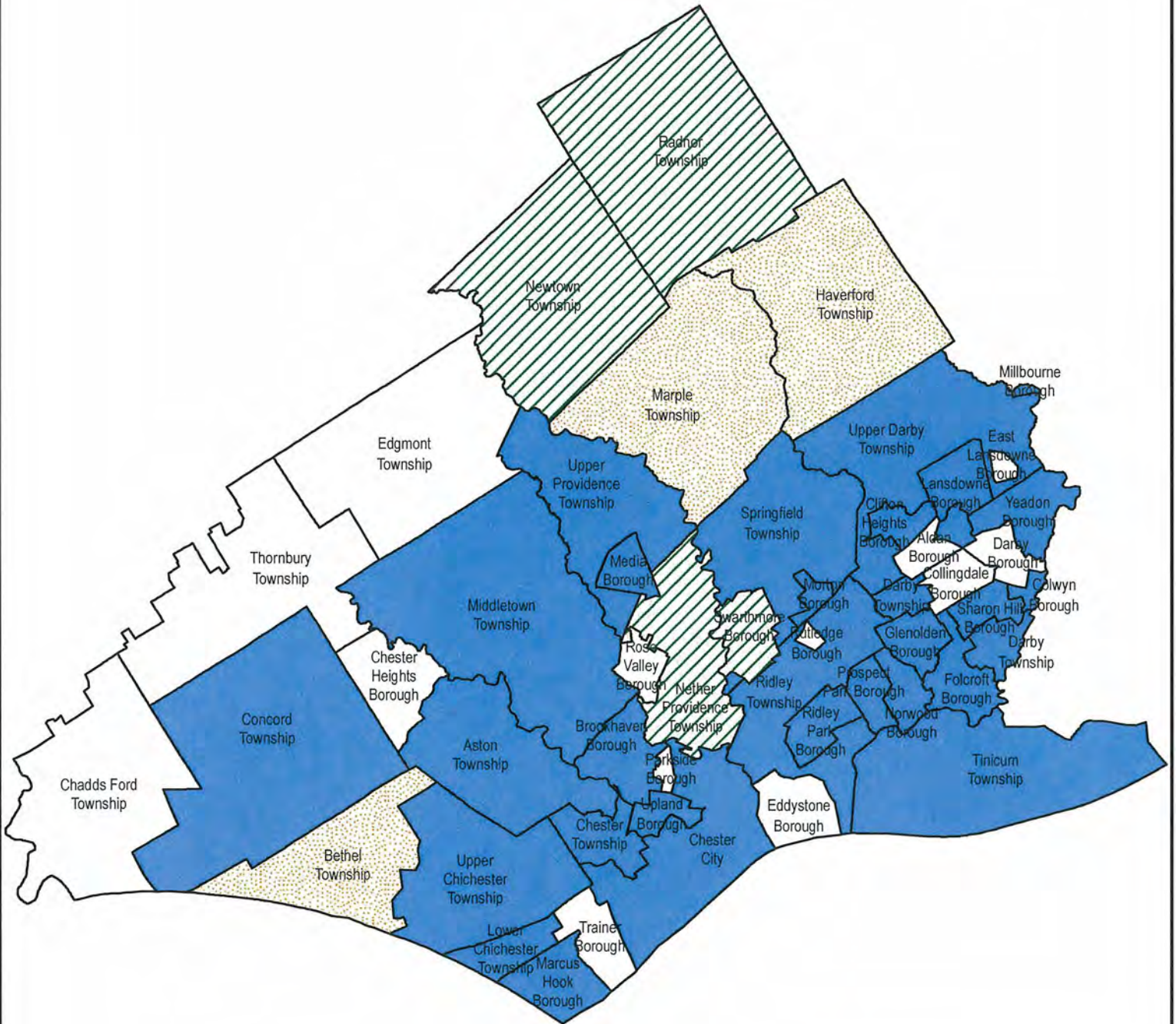


- County Owned Transfer Station
- Private Transfer Station
- Resource Recovery Facility

Source: Delaware County Solid Waste Authority  
 Prepared by  
 Delaware County Planning  
 Department 2013



# Exhibit 2-B Delaware County Compost Farm



Source: Delaware County Solid Waste Authority  
 Prepared by  
 Delaware County Planning  
 Department 2013

# EXHIBIT 2-C

## Covanta Delaware Valley, L.P.

Recycling Waste  
Into Renewable  
Energy

Participating municipalities and private haulers deliver in excess of 1.1 million tons per year of solid waste to the facility. Utilizing six boilers each with a rated capacity of 558 tons per day, the plant has the ability to process up to 3,348 tons of municipal and commercial waste which, in turn, generates up to 90 MW of clean, renewable power. This operation also conserves valuable landfill space by reducing the waste processed into an inert ash residue that is approximately 10% of its original volume.



PENNSYLVANIA

An Award  
Winning  
Facility

In May 2006, Delaware Valley Resource Recovery Facility received OSHA's Voluntary Protection Program (VPP) STAR award, the highest award given by the Administration in recognition of excellent workplace health and safety practices.

Facility  
Specifications

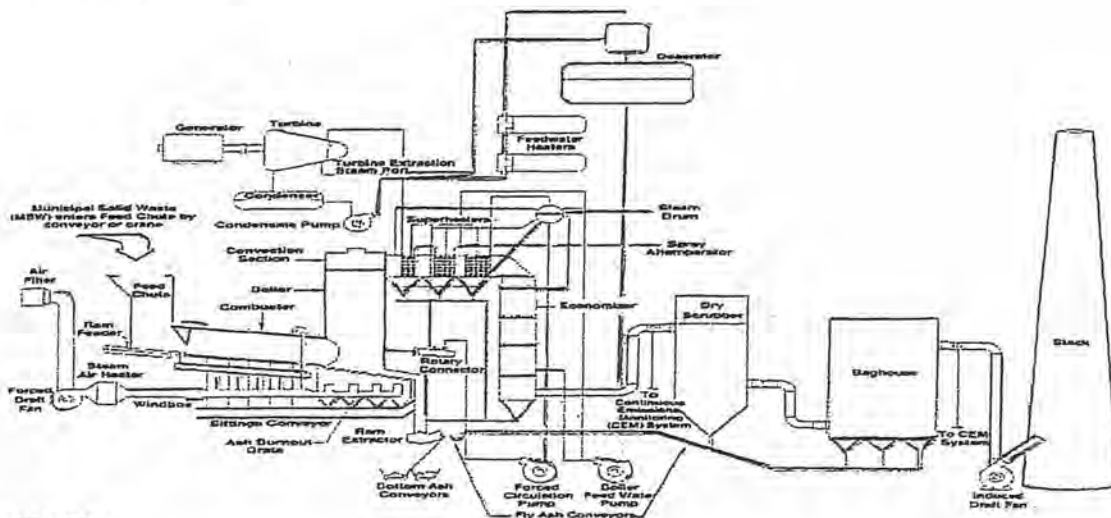
**Rated Refuse Capacity:**  
3,348 tons per day

**Steam Conditions at Boiler Outlet:**  
147,000 lbs/hr @ 690 psia/800°F

**Unit Design:**  
O'Connor Rotary  
Combustor

**Energy Generation at Rated  
Capacity:**  
90-megawatt condensing unit

### Delaware Valley Resource Recovery Facility Schematic Diagram



Covanta Delaware Valley, L.P.

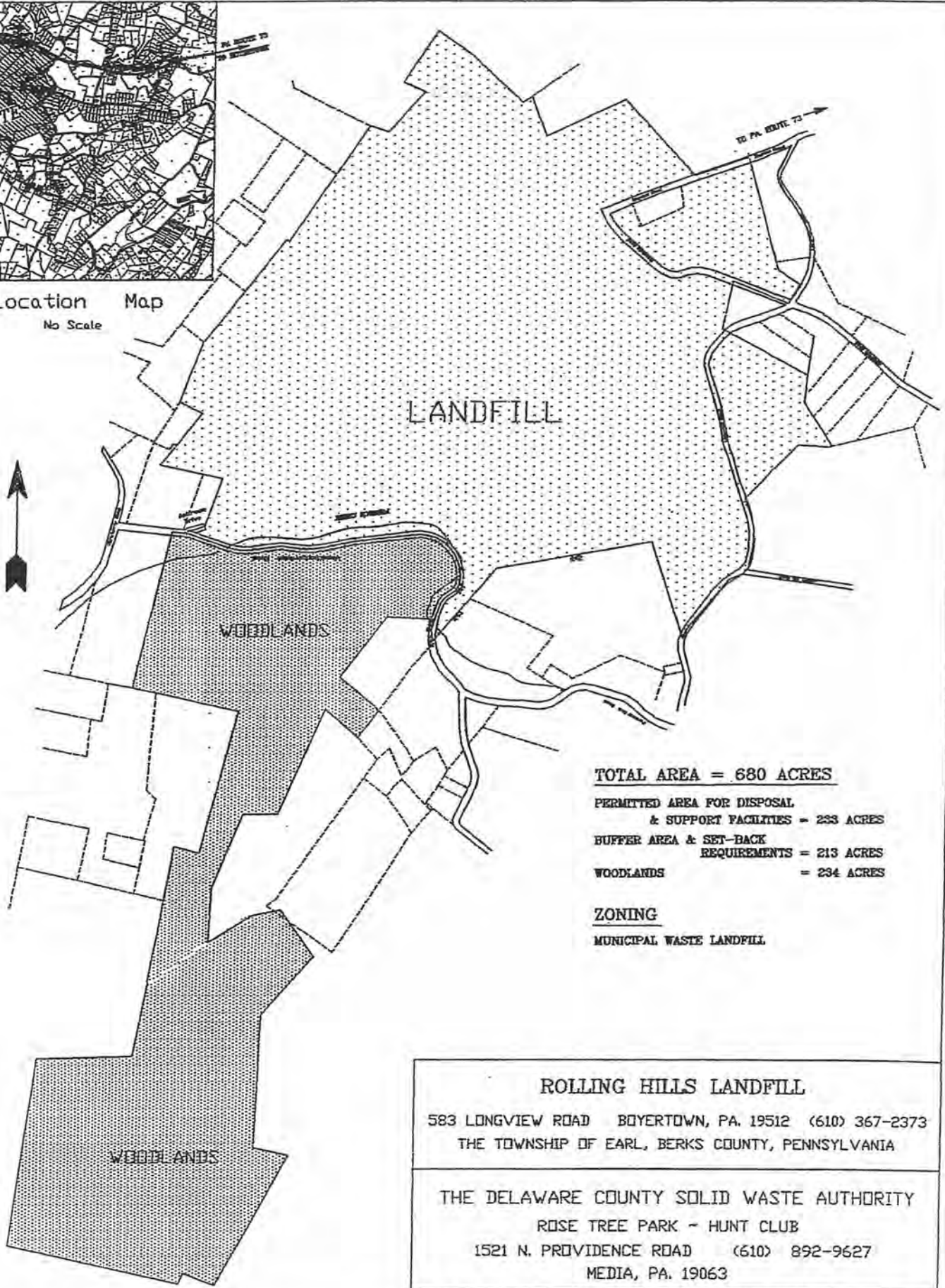
10 Highland Avenue  
Chester, PA 19013  
(610) 497-8100



# EXHIBIT 2-D



Location Map  
No Scale

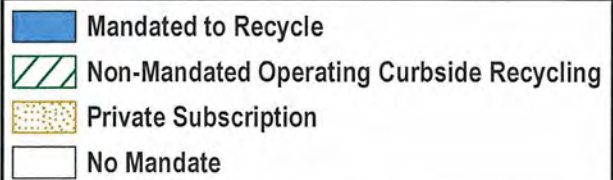
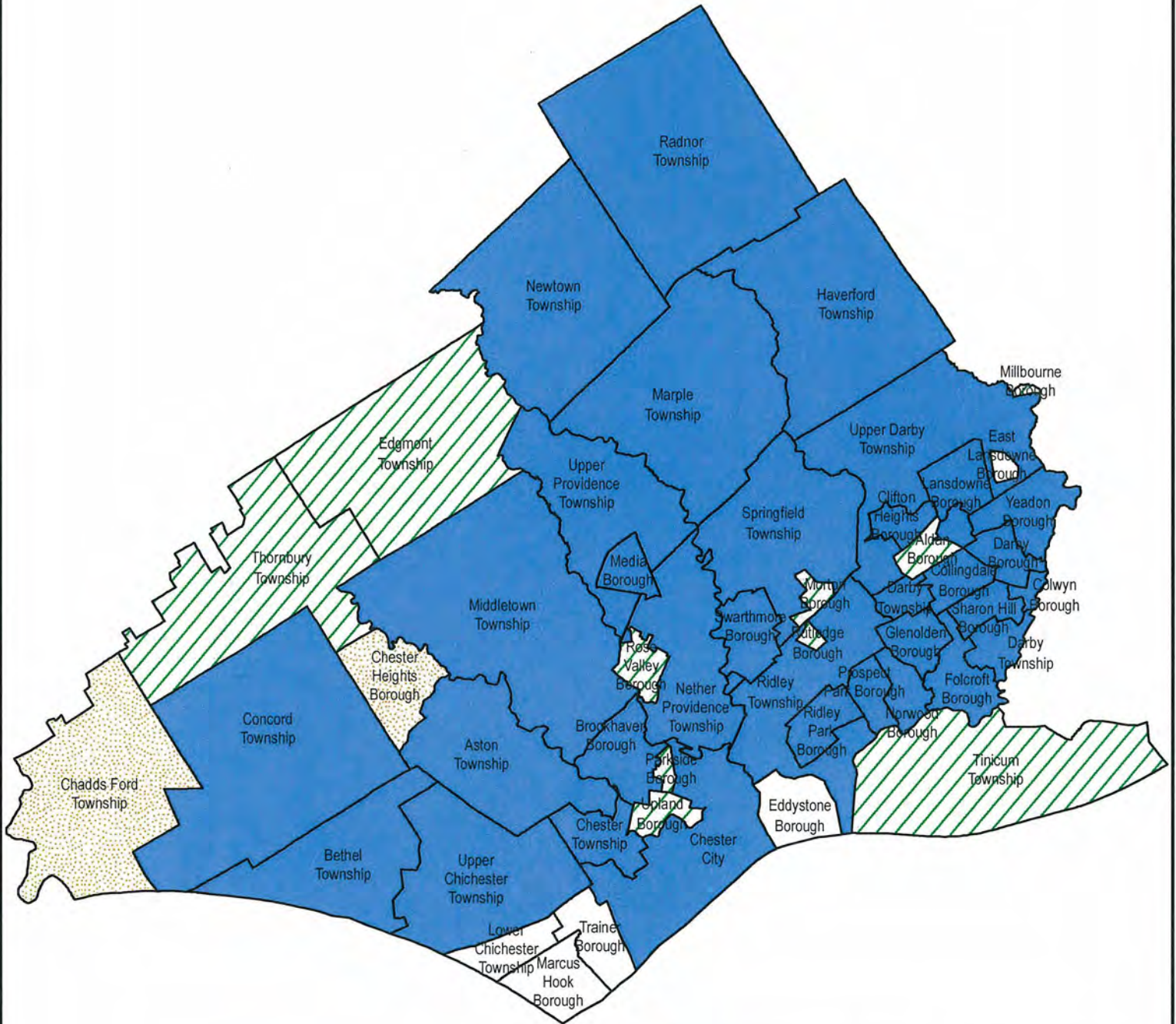
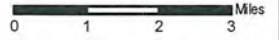


TOTAL AREA = 680 ACRES  
PERMITTED AREA FOR DISPOSAL & SUPPORT FACILITIES = 233 ACRES  
BUFFER AREA & SET-BACK REQUIREMENTS = 213 ACRES  
WOODLANDS = 234 ACRES

ZONING  
 MUNICIPAL WASTE LANDFILL

<b>ROLLING HILLS LANDFILL</b>		
583 LONGVIEW ROAD BOYERTOWN, PA. 19512 (610) 367-2373 THE TOWNSHIP OF EARL, BERKS COUNTY, PENNSYLVANIA		
THE DELAWARE COUNTY SOLID WASTE AUTHORITY ROSE TREE PARK - HUNT CLUB 1521 N. PROVIDENCE ROAD (610) 892-9627 MEDIA, PA. 19063		
SCALE = NTS	AUGUST 2009	PROJECT-DCSWA 2010PLAN

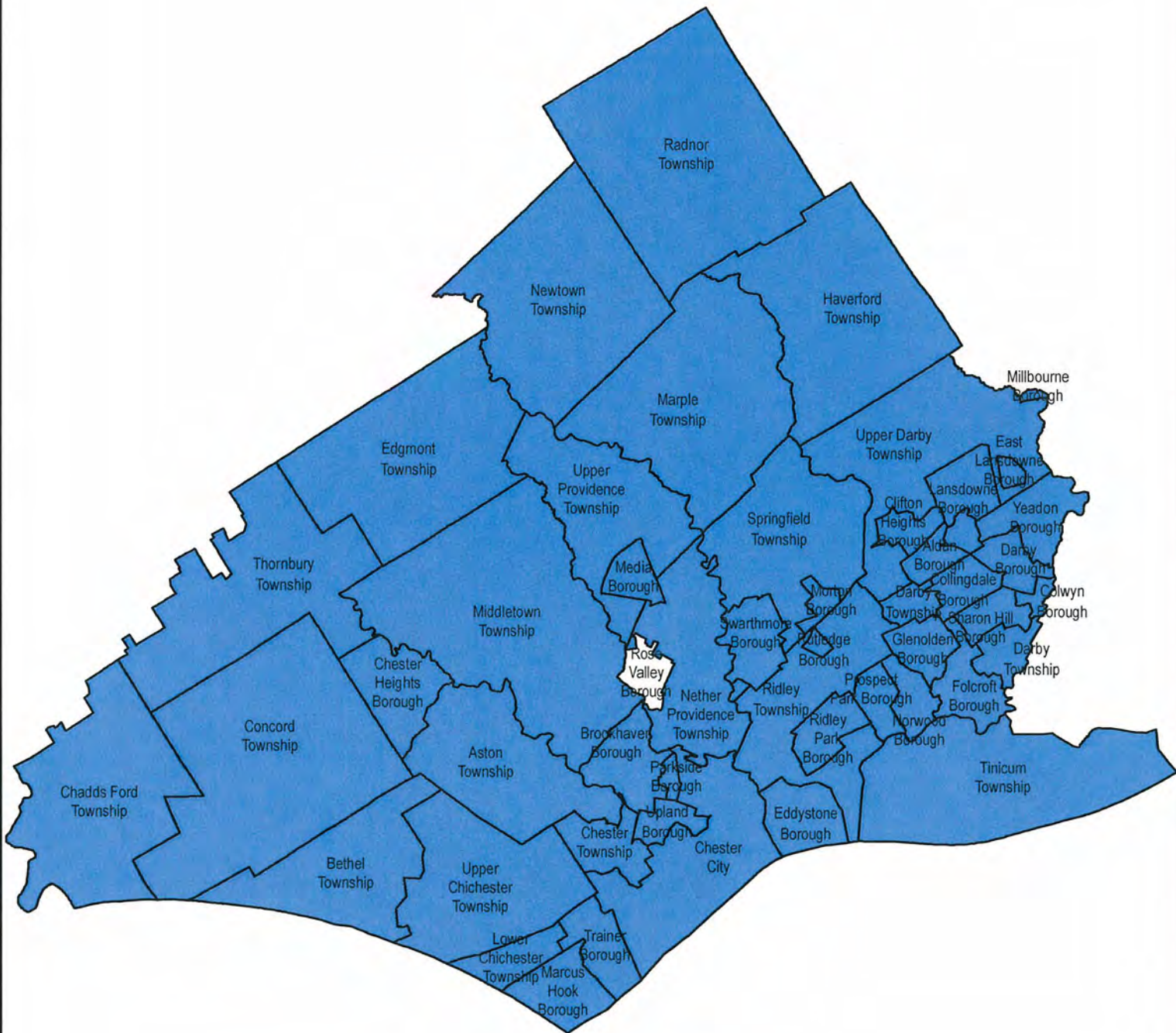
# Exhibit 4-A Delaware County Municipal Recycling



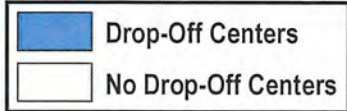
Source: Delaware County Solid Waste Authority  
 Prepared by  
 Delaware County Planning  
 Department 2013



# Exhibit 4-B Delaware County Drop Off Centers



Source: Delaware County Solid Waste Authority  
Prepared by  
Delaware County Planning  
Department 2013



**An Inter-Governmental  
Agreement for a Southeast Pennsylvania Regional  
Household Hazardous Waste Education,  
Collection and Management Program**

**THIS AGREEMENT**, made and entered into this the 11th day of April 2012, by, and between the Southeastern Pennsylvania Counties and/or Solid Waste Authorities of Bucks, Chester, Delaware, Montgomery, and Philadelphia, (hereinafter referred to as Parties)

**WITNESSETH:**

**WHEREAS**, the Parties, referenced above, have resolved to enter into this Agreement to define the participation and expectations of each Party and to coordinate the collection and management of HHW and when deemed necessary, the implementation of a joint education and publicity program; and

**WHEREAS**, the Pennsylvania Small Business and Pollution Prevention Act of 1996 (Act 190) authorizes the establishment of Hazardous Waste Collection and Disposal Grant Programs; and

**WHEREAS**, hazardous household waste (HHW) is defined in the Pennsylvania Small Business and Pollution Prevention Act of 1996 (Act 190) as "a waste which would be chemically or physically classified as a hazardous waste but is excluded from regulation as a hazardous waste pursuant to the regulations of the Pennsylvania Department of Environmental Protection (PADEP) because it is generated by a household;" such HHW consisting of numerous products common to the average household, such as pesticides, paints, polishes, cleaners, and automotive supplies, and may include the acceptance of computers and their peripherals, and televisions (non-console type); and

**WHEREAS**, each Party to this Agreement has provided a representative to a regional planning committee (Committee) to coordinate the activities of the program; and

**WHEREAS**, the Parties have successfully conducted a regional household hazardous waste collection program since 1998, and have determined that a regional cooperative HHW Education, Collection and Management program has provided increased convenience/ participation and a lower cost per participant and cost savings to all Parties; and

**WHEREAS**, it is the intent of the Committee to prepare and circulate a Request for Bid, and recommend a selected HHW collection contractor, based upon a competitive selection process,

**NOW, THEREFORE**, in consideration of the mutual goals and covenants contained herein, and the mutual benefits to result therefrom, the Parties agree as follows:

1. The purpose of this Agreement is to continue the Regional HHW Education, Collection and Management Program to affect cost savings, increase public convenience and participation, and educate the public about the proper management of HHW.

2. The term of this Agreement shall become effective on January 1, 2013 and conclude December 31, 2016. Collections will commence after March 1, 2013 and continue at a minimum, through November 2016.

Each Party shall have the right to terminate its participation under this Agreement at any time during the term of the Agreement for any reason, including, but not limited to its own convenience. If any party under this Agreement elects to terminate its participation under the Agreement prior to December 31, 2016, the withdrawing Party shall give the other Parties thirty-(30) days written notice of the termination. Any Party withdrawing from this Agreement must meet all financial commitments up to the point of the withdrawal.

3. The Committee shall agree to operate by majority vote to determine the actions recommended for approval by the respective Parties subject to the rules and regulations of each of the Parties and the Commonwealth.

4. The Parties will jointly develop and issue a Request for Proposal for collection services and each Party will enter into a separate contract with the one collection contractor that has been mutually selected by all Parties. The terms and conditions of those contracts shall be subject to the approval of each Party to this Agreement.

5. The Parties enter into this Agreement with the intent of providing funds on an annual basis, to sustain the program and to support the activities of the Committee.

6. Upon execution of this Agreement the Parties accept the PADEP's offer to provide Act 190 grant assistance for 50% of eligible program costs up to \$500,000, but not more than \$100,000/Party per year during the three-year program (January 1, 2013 to December 31, 2016).

7. The Parties agree to accept HHW from residents of each other's jurisdictions, with the understanding that each Party will maintain an accounting of these cross-jurisdictional amounts and provide reimbursement if deemed necessary.

8. The collection vendor is required to have all required insurance and assume RCRA generator status as required under Act 190, Section 205(i).

9. Annually each Party shall complete a PADEP Application for Registration Household/Small Business Hazardous Waste Collection Program. Each Party will select its respective collection event sites and schedule in conjunction with the other Parties.

10. The collection contractor will bill the host Party (the county in which a collection event takes place) separately after each collection event and the host Party will pay the contractor according to the terms of the contract.



11. Each Party will prepare and submit their respective disbursement request for all eligible program related costs directly to the PADEP regional office.

12. In the event the Parties collectively agree to develop an education and publicity program, each Party will enter into a separate contract with the one vendor that has been mutually selected by all the Parties. The education/publicity vendor contract costs will be shared equally by all Parties. The education/publicity vendor will bill each Party separately and each Party will pay the vendor according to the terms of the contract.

13. This Agreement shall be executed simultaneously in multiple counterparts, each of which shall be deemed an original, but all of which taken together shall constitute but one and the same instrument. This Agreement shall be deemed effective and legally binding upon execution by each of the Parties hereto.

This Agreement shall be renewable by any and all Parties for additional terms at the discretion of the Parties.

IN WITNESS WHEREOF, the Parties hereto have approved and caused these presents to be signed.

Witness for County:

COUNTY OF DELAWARE

Anne M. Corgan

[Signature]  
County Council Chairman

4-11-12  
Date

[Signature]  
County Council Vice Chairman

[Signature]  
County Council Member

[Signature]  
County Council Member

[Signature]  
County Council Member

EPA WARM MODEL for DELAWARE COUNTY ~ 2010 through 2012

**1. EPA WARM Model**

The data below provide estimates of the environmental benefits of recycling when compared to disposal. The estimates are based on the conversion factors available through the WARM model (version 12) and the Greenhouse Gas Equivalency Calculator, both of which have been developed by the U.S. Environmental Protection Agency. This report classifies reductions in GHG and Energy in positive numerical values as opposed to the EPA which classifies reductions as negative values.

**Table 1.1 - EPA Equivalent Factors for Emission saved, 2010 to 2012**

Emission saved	2010	2011	2012
The annual GHG emissions from this many passenger vehicles	28,071	11,086	48,427
This many gallons of gasoline (based on CO2 emissions per gallon)	15,105,392	5,965,570	26,059,379
Barrels of oil	313,349	123,751	540,581

- The numbers in each of the rows above are not cumulative.

**Table 1.2 - EPA Equivalent Factors for Energy saved, 2010 to 2012**

Energy saved	2010	2011	2012
Annual emissions from the energy consumption of this many households (based on annual emissions ...)	6,935	2,739	11,963
Number of propane cylinders used for home barbeques (based on CO2 emissions per pound of propane)	5,614,171	2,217,204	9,685,402

- The numbers in each of the rows above are not cumulative.

**Table 1.3 - EPA Equivalent Factors for Resource saved, 2010 to 2012**

Resource saved	2010	2011	2012
Acres of standing forest (based on CO2 sequestration per tree)	1,040	411	1,795
Tons of waste recycled instead of landfilled (based on CO2 emissions per ton of waste landfilled)	50,464	19,930	87,060

- The numbers in each of the rows above are not cumulative.

**1.1 Greenhouse Gas Emissions Reductions (GHG)**

Explanation of Results on Greenhouse Gas Avoidance: The emission of greenhouse gases, such as carbon dioxide and methane, is causing global warming. Recycling decreases these emissions because manufacturing with recycled materials consume less energy, and when less fuels such as oil, gas and coal are burned to produce energy, less greenhouse gas is produced. In addition, EPA has identified landfills as the single largest source of methane emissions, a very powerful greenhouse gas. The primary source of methane in landfills is decomposing paper, food waste and other organic material. By diverting organics from disposal, less methane is produced and more greenhouse gas is avoided.

The report calculates emissions in metric tons of carbon equivalent (MTCE) and metric tons of carbon dioxide equivalent (MTCO2E) across a wide range of material types commonly found in municipal solid waste (MSW).

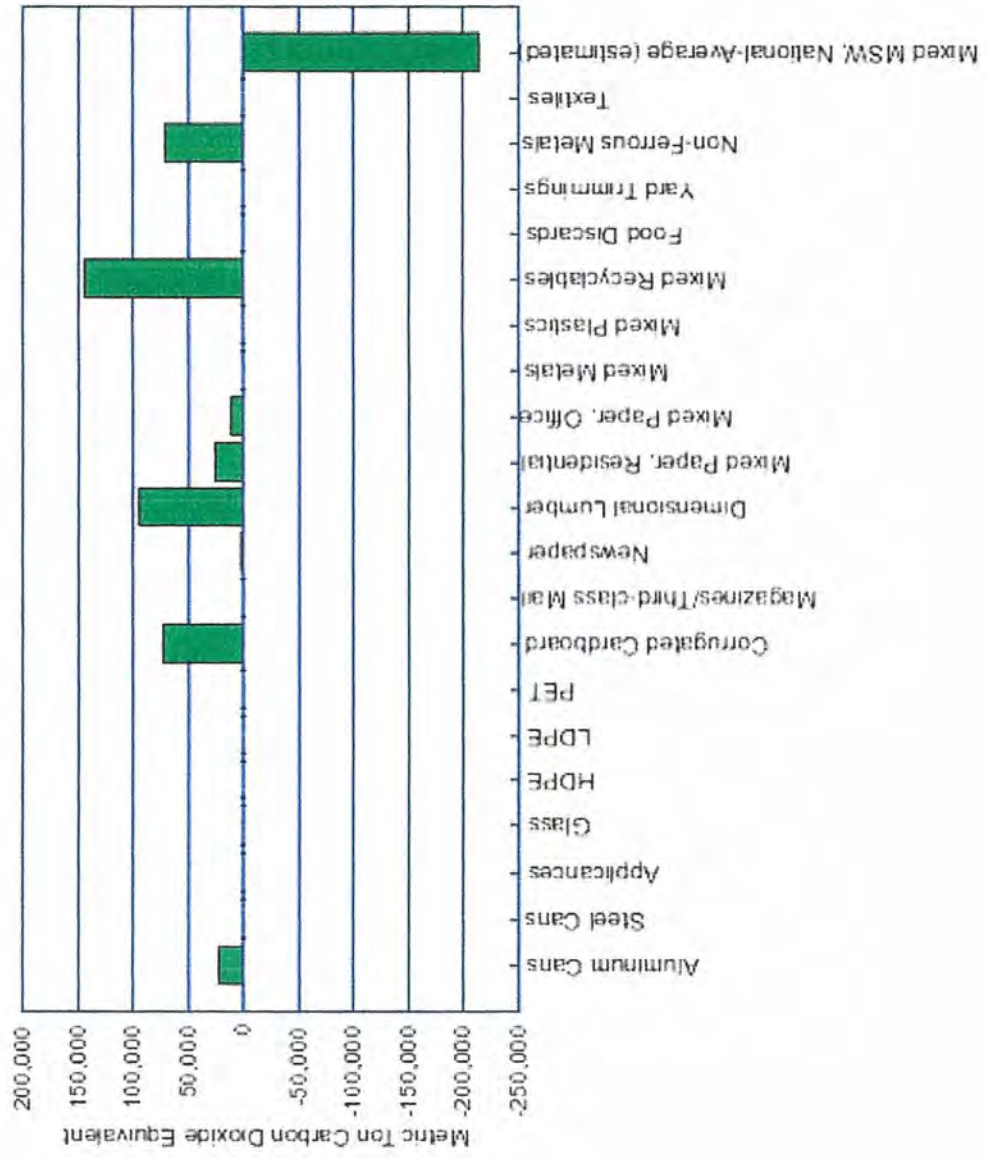
**Table 1.4 - Net GHG Reductions By Material Type, All Selected Modules, 2012**

EPA Material	Ton	Metric Ton Carbon Equivalent	Metric Ton Carbon Dioxide Equivalent
Aluminum Cans	2,595.7	6,281.7	23,076.1
Steel Cans	596.0	292.1	1,072.9
Appliances	32,773.3		

Glass	55.0	4.4	15.4
HDPE	4.9	1.9	4.2
LDPE	84.5		
PET	55.6	22.8	61.7
Corrugated Cardboard	23,345.7	19,843.8	72,605.0
Magazines/Third-class Mail	98.0	82.3	300.9
Newspaper	776.8	590.4	2,159.6
Dimensional Lumber	38,224.1	25,610.2	94,031.4
Mixed Paper, Residential	7,578.6	7,275.5	26,676.8
Mixed Paper, Office	2,895.5	2,837.6	10,394.8
Mixed Metals	4.9	5.2	19.3
Mixed Plastics	15.4	6.3	15.0
Mixed Recyclables	51,648.1	40,285.5	144,614.8
Food Discards	2,934.3		
Yard Trimmings	21,404.2		
Non-Ferrous Metals	11,943.6	19,288.8	70,825.3
Textiles	9.2		
Mixed MSW, National-Average (estimated)	217,779.1	-58,800.4	-213,423.5
<b>Total</b>	<b>414,822.5</b>	<b>63,628.2</b>	<b>232,449.7</b>



**Figure 1.1 - Net GHG Reductions By Material Type, All Selected Modules, 2012**



**Table 1.5 - Net GHG Reductions By Material Type, Residential Recycling, 2012**

<b>EPA Material</b>	<b>Re-TRAC Material</b>	<b>Tons</b>	<b>Metric Ton Carbon Equivalent</b>	<b>Metric Ton Carbon Dioxide Equivalent</b>
Aluminum Cans	Aluminum Cans (AA1)	98.5	238.3	875.5
Aluminum Cans	Aluminum Scrap (AA2)	2,192.5	5,305.8	19,491.3
Appliances	White Goods (F03)	32,345.7		
Glass	Clear Glass (GL1)	0.1	0.0	0.0
HDPE	#2 Plastic (HDPE) (PL2)	1.0	0.4	0.9
PET	#1 Plastic (PET) (PL1)	27.9	11.4	31.0
Corrugated Cardboard	Cardboard (C01)	1,892.5	1,608.6	5,885.7
Newspaper	Newsprint (PA2)	659.0	500.8	1,832.0
Mixed Paper, Residential	Mixed Papers (PA3)	2,236.2	2,146.7	7,871.4
Mixed Paper, Office	Office Papers (PA4)	105.6	103.5	379.1
Mixed Recyclables	Commingled Materials (XXX)	1,601.2	1,248.9	4,483.3
Mixed Recyclables	Single Stream (SS1)	31,134.6	24,285.0	87,176.9
Non-Ferrous Metals	Non Ferrous Metals (N01)	98.3	158.8	582.9
Textiles	Clothing and Textiles (MO3)	5.2		
<b>Total</b>		<b>72,398.2</b>	<b>35,608.3</b>	<b>128,609.9</b>

**Table 1.6 - Net GHG Reductions By Material Type, Residential Organics, 2012**

<b>EPA Material</b>	<b>Re-TRAC Material</b>	<b>Tons</b>	<b>Metric Ton Carbon Equivalent</b>	<b>Metric Ton Carbon Dioxide Equivalent</b>
Dimensional Lumber	Wood Waste (WW1)	3,016.7	2,021.2	7,421.0
Food Discards	Food Waste (FW1)	28.4		
Yard Trimmings	Yard and Leaf Waste (Y01)	19,956.8		
<b>Total</b>		<b>23,001.8</b>	<b>2,021.2</b>	<b>7,421.0</b>

**Table 1.7 - Net GHG Reductions By Material Type, Commercial Recycling, 2012**

<b>EPA Material</b>	<b>Re-TRAC Material</b>	<b>Tons</b>	<b>Metric Ton Carbon Equivalent</b>	<b>Metric Ton Carbon Dioxide Equivalent</b>
Aluminum Cans	Aluminum Cans (AA1)	203.9	493.4	1,812.5
Aluminum Cans	Aluminum Scrap (AA2)	100.9	244.1	896.8
Steel Cans	Mixed Metals (MM1)	596.0	292.1	1,072.9
Applicances	White Goods (F03)	427.5		
Glass	Brown Glass (GL4)	15.0	1.2	4.2
Glass	Clear Glass (GL1)	3.0	0.2	0.8
Glass	Green Glass (GL3)	0.0	0.0	0.0
Glass	Mixed Glass (GL2)	36.9	2.9	10.3

HDPE	#2 Plastic (HDPE) (PL2)	3.9	1.5	3.4
LDPE	#4 Plastic (LDPE) (PL4)	84.5		
PET	#1 Plastic (PET) (PL1)	27.7	11.4	30.7
Corrugated Cardboard	Cardboard (C01)	21,453.1	18,235.2	66,719.2
Magazines/Third-class Mail	Magazines (PA1)	98.0	82.3	300.9
Newspaper	Newsprint (PA2)	117.9	89.6	327.6
Mixed Paper, Residential	Brown Bags and Sacks (C02)	23.6	22.7	83.2
Mixed Paper, Residential	Mixed Papers (PA3)	5,318.8	5,106.0	18,722.2
Mixed Paper, Office	Office Papers (PA4)	2,789.9	2,734.1	10,015.7
Mixed Metals	Mixed Cans (MX2)	4.9	5.2	19.3
Mixed Plastics	#5 Plastic (PP) (PL5)	15.4	6.3	15.0
Mixed Recyclables	Commingled Materials (XXX)	2,400.8	1,872.6	6,722.2
Mixed Recyclables	Single Stream (SS1)	16,511.6	12,879.0	46,232.5
Non-Ferrous Metals	Non Ferrous Metals (N01)	11,845.3	19,130.1	70,242.3
Textiles	Clothing and Textiles (MO3)	4.0		
<b>Total</b>		<b>62,082.5</b>	<b>61,210.0</b>	<b>223,231.9</b>

**Table 1.8 - Net GHG Reductions By Material Type, Commercial Organics, 2012**

<b>EPA Material</b>	<b>Re-TRAC Material</b>	<b>Tons</b>	<b>Metric Ton Carbon Equivalent</b>	<b>Metric Ton Carbon Dioxide Equivalent</b>
Dimensional Lumber	Wood Waste (WW1)	35,207.5	23,589.0	86,610.4
Food Discards	Food Waste (FW1)	2,906.0		
Yard Trimmings	Yard and Leaf Waste (Y01)	1,447.4		
<b>Total</b>		<b>39,560.9</b>	<b>23,589.0</b>	<b>86,610.4</b>

**Table 1.9 - Net GHG Reductions By Community, All Selected Modules, Metric Ton Carbon Equivalent, 2010 to 2012**

<b>Community</b>	<b>2010 (Metric Ton Carbon Equivalent)</b>	<b>2011 (Metric Ton Carbon Equivalent)</b>	<b>2012 (Metric Ton Carbon Equivalent)</b>
Aldan	371.2	349.9	644.9
Aston	2,613.2	2,931.7	2,697.9
Bethel	590.9	651.0	781.7
Brookhaven	1,498.0	2,143.7	1,349.2
Chadds Ford	510.6	267.1	302.8
Chester	5,003.3	4,614.2	3,422.5
Chester	157.1	628.8	521.3
Chester Heights	100.9	141.7	148.4
Clifton Heights	730.2	585.7	732.2
Collingdale	175.9	201.0	258.5
Colwyn	87.8	59.7	51.5

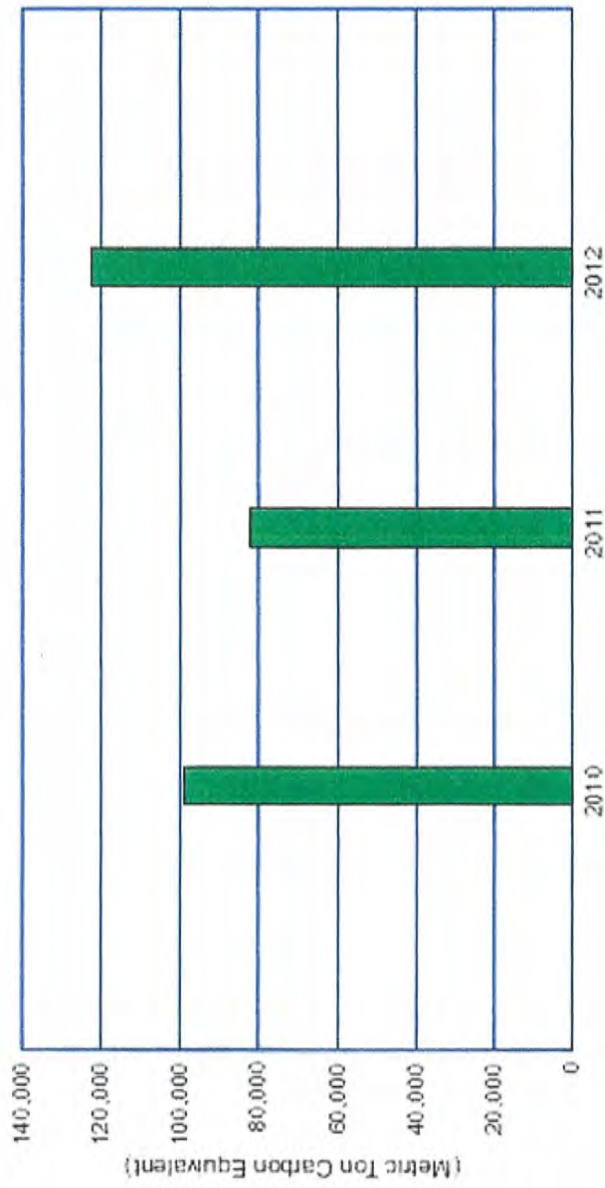


Concord	2,771.2	3,623.2	3,233.9
County-wide Data	14,510.3	2,467.2	41,359.4
Darby	140.8	35.5	541.0
Darby	8,328.1	8,476.6	6,762.9
East Lansdowne	58.1	48.0	55.8
Eddystone	777.2	1,249.8	1,062.7
Edgmont	673.1	865.2	1,566.7
Folcroft	1,621.2	1,891.6	1,744.5
Glenolden	1,031.8	741.4	944.8
Haverford	5,500.8	5,902.1	7,418.1
Lansdowne	1,338.0	1,222.6	1,357.3
Lower Chichester	220.4	175.0	365.0
Marcus Hook	700.7	583.9	198.4
Marple	4,460.5	4,018.1	3,918.1
Media	1,665.5	1,247.4	1,413.6
Middletown	1,816.2	2,031.1	2,461.3
Millbourne	7.7	10.5	12.9
Morton	265.3	371.4	440.6
Nether Providence	1,484.0	1,683.3	1,821.2
Newtown	2,238.1	1,922.8	2,651.9
Norwood	321.2	307.5	391.0
Parkside	48.1	83.2	70.9
Prospect Park	308.3	397.2	369.3
Radnor	4,383.9	4,496.6	5,062.3
Ridley	2,919.2	3,743.2	4,398.1



Ridley Park	1,108.7	847.8	1,303.6
Rose Valley	61.8	105.7	71.5
Rutledge	48.1	55.8	72.6
Sharon Hill	862.5	745.0	607.3
Springfield	10,913.2	6,569.4	5,438.6
Swarthmore	834.2	901.5	844.4
Thornbury	347.2	324.5	445.2
Tinicum	321.5	330.1	219.7
Trainer	220.3	111.4	120.0
Upland	813.1	515.4	662.1
Upper Chichester	2,075.4	2,080.4	2,104.5
Upper Darby	10,282.2	8,273.4	8,273.5
Upper Providence	778.7	816.2	1,069.4
Yeadon	866.1	460.2	663.5
<b>Total</b>	<b>98,961.7</b>	<b>82,305.7</b>	<b>122,428.5</b>

**Figure 1.2 - Net GHG Reductions By Community, All Selected Modules, Metric Ton Carbon Equivalent, 2010 to 2012**



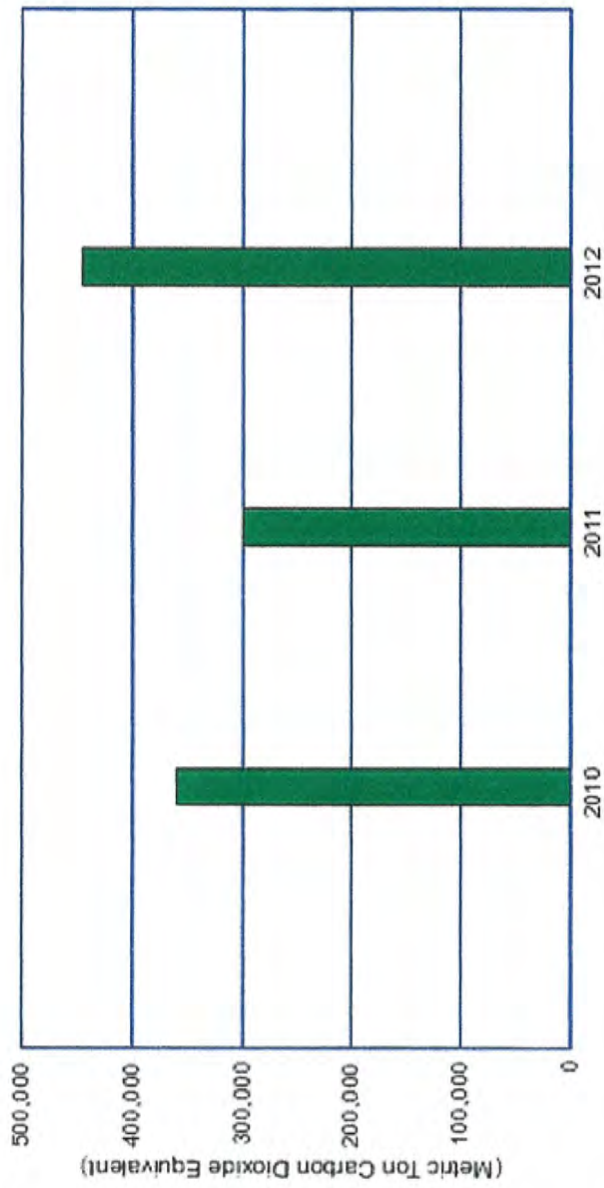
**Table 1.10 - Net GHG Reductions By Community, All Selected Modules, Metric Ton Carbon Dioxide Equivalent, 2010 to 2012**

Community	2010 (Metric Ton Carbon Dioxide Equivalent)	2011 (Metric Ton Carbon Dioxide Equivalent)	2012 (Metric Ton Carbon Dioxide Equivalent)
Aldan	1,357.6	1,279.1	2,336.6
Aston	9,488.9	10,628.2	9,771.8
Bethel	2,125.9	2,340.4	2,816.4

Brookhaven	5,441.7	7,817.4	4,890.3
Chadds Ford	1,841.2	962.9	1,093.1
Chester	18,259.2	16,854.2	12,485.2
Chester	574.6	2,302.8	1,902.9
Chester Heights	369.0	511.4	535.0
Clifton Heights	2,652.1	2,118.7	2,650.0
Collingdale	636.5	725.1	931.0
Colwyn	316.3	218.1	187.8
Concord	10,038.4	13,115.6	11,695.9
County-wide Data	53,275.8	9,050.2	151,805.0
Darby	508.8	128.0	1,978.8
Darby	30,540.4	31,047.0	24,802.3
East Lansdowne	212.7	175.4	203.3
Eddystone	2,824.2	4,566.4	3,888.0
Edgmont	2,438.5	3,145.1	5,708.2
Folcroft	5,907.6	6,892.5	6,357.8
Glenolden	3,750.3	2,686.6	3,432.2
Haverford	19,844.4	21,277.4	26,851.0
Lansdowne	4,855.4	4,421.2	4,912.4
Lower Chichester	799.9	637.6	1,330.0
Marcus Hook	2,551.1	2,115.0	720.0
Marple	16,188.2	14,570.0	14,201.6
Media	6,022.4	4,526.2	5,113.0
Middletown	6,536.5	7,324.2	8,886.9
Millbourne	28.2	38.6	47.0

Morton	962.8	1,343.9	1,597.6
Nether Providence	5,343.5	6,062.0	6,558.2
Newtown	8,090.3	6,948.8	9,576.2
Norwood	1,160.9	1,111.9	1,413.3
Parkside	175.6	304.1	259.1
Prospect Park	1,115.1	1,433.9	1,336.4
Radnor	15,815.1	16,227.6	18,289.6
Ridley	10,573.0	13,537.4	15,905.5
Ridley Park	4,034.3	3,064.2	4,743.5
Rose Valley	224.9	379.6	256.8
Rutledge	172.8	200.5	260.6
Sharon Hill	3,131.9	2,700.4	2,199.7
Springfield	39,798.0	23,918.0	19,775.5
Swarthmore	3,016.5	3,258.9	3,047.9
Thornbury	1,246.7	1,165.5	1,602.8
Tinicum	1,164.5	1,196.3	794.6
Trainer	791.8	400.4	434.9
Upland	2,975.1	1,860.0	2,413.2
Upper Chichester	7,526.0	7,539.3	7,595.2
Upper Darby	37,356.3	30,003.9	30,000.0
Upper Providence	2,818.9	2,964.2	3,878.8
Yeadon	3,155.4	1,653.4	2,400.3
<b>Total</b>	<b>360,035.1</b>	<b>298,749.7</b>	<b>445,873.2</b>

**Figure 1.3 - Net GHG Reductions By Community, All Selected Modules, Metric Ton Carbon Dioxide Equivalent, 2010 to 2012**



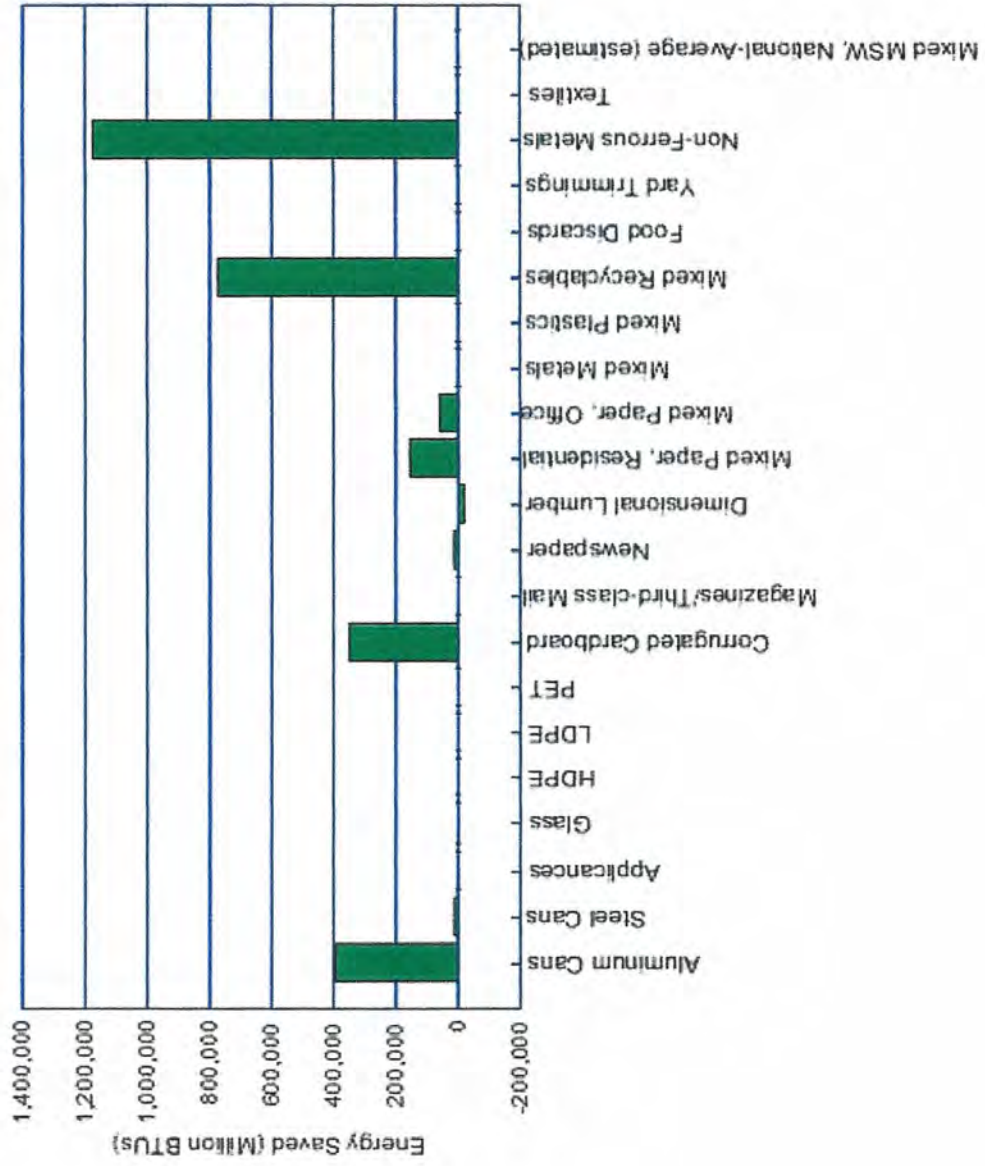
**Table 1.11 - Net Energy Savings By Material Type, All Selected Modules, 2012**

EPA Material	Ton	Energy Saved (Million BTUs)
Aluminum Cans	2,595.7	396,525.2
Steel Cans	596.0	11,902.7
Appliances	32,773.3	

Glass	55.0	117.2
HDPE	4.9	247.8
LDPE	84.5	
PET	55.6	1,782.8
Corrugated Cardboard	23,345.7	351,585.5
Magazines/Third-class Mail	98.0	67.6
Newspaper	776.8	12,809.9
Dimensional Lumber	38,224.1	-22,552.2
Mixed Paper, Residential	7,578.6	154,604.1
Mixed Paper, Office	2,895.5	60,371.0
Mixed Metals	4.9	294.7
Mixed Plastics	15.4	634.0
Mixed Recyclables	51,648.1	774,205.6
Food Discards	2,934.3	
Yard Trimmings	21,404.2	
Non-Ferrous Metals	11,943.6	1,173,095.5
Textiles	9.2	
Mixed MSW, National-Average (estimated)	217,779.1	2,177.8
<b>Total</b>	<b>414,822.5</b>	<b>2,917,869.1</b>



**Figure 1.4 - Net Energy Savings By Material Type, All Selected Modules, 2012**



**Table 1.12 - Net Energy Savings By Material Type, Residential Recycling, 2012**

<b>EPA Material</b>	<b>Re-TRAC Material</b>	<b>Tons</b>	<b>Energy Saved (Million BTUs)</b>
Aluminum Cans	Aluminum Cans (AA1)	98.5	15,043.8
Aluminum Cans	Aluminum Scrap (AA2)	2,192.5	334,926.3
Applicances	White Goods (F03)	32,345.7	
Glass	Clear Glass (GL1)	0.1	0.2
HDPE	#2 Plastic (HDPE) (PL2)	1.0	50.4
PET	#1 Plastic (PET) (PL1)	27.9	894.8
Corrugated Cardboard	Cardboard (C01)	1,892.5	28,501.4
Newspaper	Newspprint (PA2)	659.0	10,866.6
Mixed Paper, Residential	Mixed Papers (PA3)	2,236.2	45,618.3
Mixed Paper, Office	Office Papers (PA4)	105.6	2,201.6
Mixed Recyclables	Commingled Materials (XXX)	1,601.2	24,001.5
Mixed Recyclables	Single Stream (SS1)	31,134.6	466,707.5
Non-Ferrous Metals	Non Ferrous Metals (N01)	98.3	9,655.0
Textiles	Clothing and Textiles (MO3)	5.2	
<b>Total</b>		<b>72,398.2</b>	<b>938,467.3</b>

**Table 1.13 - Net Energy Savings By Material Type, Residential Organics, 2012**

<b>EPA Material</b>	<b>Re-TRAC Material</b>	<b>Tons</b>	<b>Energy Saved (Million BTUs)</b>
Dimensional Lumber	Wood Waste (WW1)	3,016.7	-1,779.8
Food Discards	Food Waste (FW1)	28.4	
Yard Trimmings	Yard and Leaf Waste (Y01)	19,956.8	
<b>Total</b>		<b>23,001.8</b>	<b>-1,779.8</b>

**Table 1.14 - Net Energy Savings By Material Type, Commercial Recycling, 2012**

<b>EPA Material</b>	<b>Re-TRAC Material</b>	<b>Tons</b>	<b>Energy Saved (Million BTUs)</b>
Aluminum Cans	Aluminum Cans (AA1)	203.9	31,144.7
Aluminum Cans	Aluminum Scrap (AA2)	100.9	15,410.4
Steel Cans	Mixed Metals (MM1)	596.0	11,902.7
Applicances	White Goods (F03)	427.5	
Glass	Brown Glass (GL4)	15.0	32.0
Glass	Clear Glass (GL1)	3.0	6.4
Glass	Green Glass (GL3)	0.0	0.0
Glass	Mixed Glass (GL2)	36.9	78.5
HDPE	#2 Plastic (HDPE) (PL2)	3.9	197.5
LDPE	#4 Plastic (LDPE) (PL4)	84.5	
PET	#1 Plastic (PET) (PL1)	27.7	888.0
Corrugated Cardboard	Cardboard (C01)	21,453.1	323,084.1
Magazines/Third-class Mail	Magazines (PA1)	98.0	67.6

Newspaper	Newsprint (PA2)	117.9	1,943.3
Mixed Paper, Residential	Brown Bags and Sacks (C02)	23.6	482.3
Mixed Paper, Residential	Mixed Papers (PA3)	5,318.8	108,503.5
Mixed Paper, Office	Office Papers (PA4)	2,789.9	58,169.4
Mixed Metals	Mixed Cans (MX2)	4.9	294.7
Mixed Plastics	#5 Plastic (PP) (PL5)	15.4	634.0
Mixed Recyclables	Commingled Materials (XXX)	2,400.8	35,987.8
Mixed Recyclables	Single Stream (SS1)	16,511.6	247,508.7
Non-Ferrous Metals	Non Ferrous Metals (N01)	11,845.3	1,163,440.5
Textiles	Clothing and Textiles (MO3)	4.0	
<b>Total</b>		<b>62,082.5</b>	<b>1,999,776.3</b>

**Table 1.15 - Net Energy Savings By Material Type, Commercial Organics, 2012**

EPA Material	Re-TRAC Material	Tons	Energy Saved (Million BTUs)
Dimensional Lumber	Wood Waste (WW1)	35,207.5	-20,772.4
Food Discards	Food Waste (FW1)	2,906.0	
Yard Trimmings	Yard and Leaf Waste (Y01)	1,447.4	
<b>Total</b>		<b>39,560.9</b>	<b>-20,772.4</b>

**Table 1.16 - Net Energy Savings By Community, All Selected Modules, 2010 to 2012**

Community	2010 (Million BTUs)	2011 (Million BTUs)	2012 (Million BTUs)
Aldan	6,859.9	6,470.5	11,816.9

Aston	52,894.3	57,732.5	53,639.7
Bethel	11,763.7	12,694.6	14,923.4
Brookhaven	26,794.2	42,796.5	24,964.9
Chadds Ford	9,833.8	5,164.0	5,533.5
Chester	167,296.5	170,125.0	129,847.0
Chester	958.3	14,094.9	10,577.4
Chester Heights	2,036.6	2,699.1	2,829.6
Clifton Heights	13,819.8	11,174.5	14,453.4
Collingdale	3,951.2	3,845.4	4,949.2
Colwyn	1,404.3	1,247.5	1,052.6
Concord	52,378.7	57,117.6	60,985.4
County-wide Data	252,516.5	115,627.4	1,071,110.7
Darby	2,772.7	572.7	28,190.4
Darby	437,947.4	345,566.3	364,852.1
East Lansdowne	1,238.0	1,005.0	1,119.7
Eddystone	14,602.5	23,700.6	13,738.1
Edgmont	12,709.9	16,022.6	30,581.1
Folcroft	29,381.8	34,473.9	32,725.0
Glenolden	20,008.2	14,525.3	18,085.7
Haverford	104,844.8	100,368.6	105,225.8
Lansdowne	26,825.2	23,912.4	28,346.7
Lower Chichester	4,140.6	3,389.4	7,125.6
Marcus Hook	15,354.7	13,854.4	4,113.8
Marple	81,924.6	74,706.1	72,964.3
Media	32,825.8	23,622.7	27,888.6

Middletown	36,712.7	37,375.8	47,160.0
Millbourne	163.7	186.7	229.0
Morton	5,292.9	7,343.4	8,275.0
Nether Providence	27,360.6	31,872.1	34,669.4
Newtown	47,787.0	36,258.9	50,635.4
Norwood	6,270.9	6,059.3	7,716.9
Parkside	1,039.1	1,842.3	1,621.8
Prospect Park	6,002.3	7,604.6	7,126.0
Radnor	85,355.5	87,716.7	95,261.6
Ridley	62,742.2	74,380.5	85,766.9
Ridley Park	22,515.7	16,042.0	26,754.7
Rose Valley	1,500.2	2,085.0	1,374.7
Rutledge	930.9	1,073.1	1,396.7
Sharon Hill	15,352.4	14,278.7	11,949.0
Springfield	199,685.9	123,589.4	99,580.4
Swarthmore	16,470.0	17,849.2	16,428.4
Thornbury	6,668.0	6,249.4	8,583.9
Tinicum	6,327.7	6,293.9	4,388.7
Trainer	4,244.8	2,148.3	2,406.8
Upland	16,788.6	7,882.1	13,314.0
Upper Chichester	40,329.6	40,015.6	40,598.2
Upper Darby	218,894.7	181,072.9	175,333.1
Upper Providence	15,789.5	15,996.2	20,983.0
Yeadon	16,855.3	8,879.9	12,497.0
<b>Total</b>	<b>2,248,164.3</b>	<b>1,910,605.7</b>	<b>2,915,691.3</b>



**Figure 1.5 - Net Energy Savings By Community, All Selected Modules, 2010 to 2012**



## 2. Other

**Table 2.17 - Resources Saved from Recycling, 2012**

Steel Recycling	(Tons)
Tons iron ore saved	745.0
Tons coal saved	417.2
Tons lime stone saved	35.8
Total Resources Saved	1,198.0

- Resource savings associated with ferrous steel recycling (including iron ore, coal and lime stone) are based on information provided by the steel industry (see <http://www.recycle-steel.org/PDFs/brochures/buyrec.pdf>)

## EXHIBIT 7-A

### RESOLUTION FOR ADOPTING DELAWARE COUNTY SOLID WASTE MANAGEMENT PLAN, SUBSTANTIAL REVISION 2013

RESOLUTION adopting the Delaware County Solid Waste Management Plan, Substantial Revision 2013 in accordance with The Solid Waste Management Act of 1980.

WHEREAS, the General Assembly of Pennsylvania enacted a Solid Waste Management Act in 1980; and

WHEREAS, The Act requires each City, Township and Borough in the County to prepare a ten-year plan for Solid Waste Management which must be submitted to the Pennsylvania Department of Environmental Protection for Approval; and

WHEREAS, The Pennsylvania Department of Environmental Protection has recommended that the Act's requirements can best be accomplished on a County-wide basis; and

WHEREAS, The County of Delaware appointed members to the Delaware County Solid Waste Advisory Committee (SWAC) and designated the Delaware County Solid Waste Authority (DCSWA) to prepare said Plan on their behalf; and

WHEREAS, the Delaware County SWAC and DCSWA , did prepare a ten-year Plan for Solid Waste Management; and

WHEREAS, the appropriate municipal officials of this County have reviewed the findings and recommendations of that Plan, as it affects their municipality and have found the Plan acceptable and have recommended that the Plan be adopted.

NOW THEREFORE BE IT RESOLVED THAT Delaware County Council hereby accepts and Adopts the Delaware County Solid Waste Management Plan,

Substantial Revision 2013 in accordance with the Pennsylvania Solid Waste Management Act of 1980.

BE IT FURTHER RESOLVED THAT the Delaware County Solid Waste Authority is hereby authorized by Delaware County Council to submit the Plan to the Pennsylvania Department of Environmental Protection for final approval on our behalf.

RESOLVED THIS / 23<sup>rd</sup> DAY OF APRIL, 2014 A.D.

 Chairman

 Vice Chairman

 Councilperson

 Councilperson

 Councilperson

APPENDIX A

Delaware County Solid Waste Management Plan

Municipality: \_\_\_\_\_

Population per 2010 Census \_\_\_\_\_

Municipality Type:         First Class Twp.     Second Class Twp.     Borough

Municipal Solid Waste (MSW) Questions:

Existing MSW Collection System:     Municipal     Contracted Hauler         Private Subscription

Do you charge residents an Annual MSW Collection Fee?    Yes     No

If yes, how much? \_\_\_\_\_

Please indicate the name(s) of your residential waste haulers:

Company Name \_\_\_\_\_  
Contact Person \_\_\_\_\_  
Address \_\_\_\_\_  
Phone/Fax \_\_\_\_\_  
E-mail: \_\_\_\_\_

*If necessary, include additional waste haulers on a separate sheet.*

Recycling Questions:

Curbside Recycling Program:  Municipal     Contracted Hauler     Private Subscription     No Program

List all Items Collected curbside: \_\_\_\_\_.

Number of Pick-ups per month: \_\_\_\_\_.

Type of Program:         Single Stream         Commingled         Source Separated  
                                    (all items in one container)        (paper/cardboard separate)

Please list Curbside Recycler(s)

Company Name \_\_\_\_\_  
Contact Person \_\_\_\_\_  
Address \_\_\_\_\_  
Phone/Fax \_\_\_\_\_  
E-mail: \_\_\_\_\_

*If necessary, include additional recyclers on a separate sheet.*

Do you have a program to collect White Goods?    Yes     No     Indicate # of times per month: \_\_\_\_\_

**DCSWMP Questionnaire**

**Municipality:** \_\_\_\_\_

Leaf and Yardwaste Collection Program: (check all that apply)

Type of Program:  Collected by Municipality  Contracted Hauler  Drop Off Program  No Program

Collection Frequency: \_\_\_\_\_.

How do you inform your residents of this program? \_\_\_\_\_.

Is your yardwaste recycler the same as listed on the reverse? Yes  No

If hauler is different, please indicate:

Company Name	_____	_____
Contact Person	_____	_____
Address	_____	_____
Phone/Fax	_____	_____
E-mail:	_____	_____

List **all** recycling (glass, aluminum, paper, clothing, phones, motor oil, yardwaste, etc.) Drop Off Programs, whether you or someone else administers the program:

Location Site:	_____	_____
Address:	_____	_____
Items Accepted:	_____	_____
<i>If Known:</i>	_____	_____
Contact:	_____	_____
Phone/Fax	_____	_____

*If necessary, enclose a separate sheet.*

Is there a Trash, Transfer Station, Medical Incinerator, Crematorium, Toxic or Sewage Waste facility operating in your municipality?

Yes  No

If yes, please list the Names, Addresses, Contact Person, Phone & E-mail of business(es) that reside in your municipality \_\_\_\_\_.

Does your municipality's Cable Channel list trash, recycling and hazardous waste information? Yes  No

Does your Website list trash, recycling and hazardous waste information? Yes  No

Please list web address: \_\_\_\_\_

\_\_\_\_\_  
Completed by:

\_\_\_\_\_  
Date

\_\_\_\_\_  
E-Mail Address



**APPENDIX B**

**Delaware County Solid Waste Management Plan  
Transfer Station (TS) Questionnaire**

Name of Transfer Station: \_\_\_\_\_ Date: \_\_\_\_\_

Permit #: \_\_\_\_\_ Contact Name: \_\_\_\_\_

Company Address: \_\_\_\_\_ Physical TS Address: \_\_\_\_\_

Permitted Maximum Daily Capacity: \_\_\_\_\_ Tons Annual Capacity: \_\_\_\_\_ Tons

Tons accepted in 2012: \_\_\_\_\_ 2011: \_\_\_\_\_ 2010: \_\_\_\_\_

List what items are accepted at your facility: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

List destination of your disposal facilities: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Does your facility accept sewage or sludge items? \_\_\_\_\_ If yes, list overall tonnage total *if not* included above, from whom, addresses & disposal method: \_\_\_\_\_

\_\_\_\_\_

Does your facility accept Construction and Demolition Debris? \_\_\_\_\_ If yes, list overall tonnage total *if not* included above and disposal method: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Does your facility have a Drop-Off Bin for Recycling?: \_\_\_\_\_ If yes, list:

Total Tonnage accepted in 2012: \_\_\_\_\_ 2011: \_\_\_\_\_ 2010: \_\_\_\_\_

Indicate what items are accepted: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Indicate where recycled items are sent for processing: \_\_\_\_\_

\_\_\_\_\_

# APPENDIX C

## Delaware County Solid Waste Management Plan Hospital Waste Survey

Date: \_\_\_\_\_ Phone #: \_\_\_\_\_

Medical Building Name/Address: \_\_\_\_\_

Contact(s): \_\_\_\_\_

# of Beds: \_\_\_\_\_ # of Employees: \_\_\_\_\_

What is the total amount of SOLID WASTE generated (circle units)?

2012 - \_\_\_\_\_ ( pounds tons yd<sup>3</sup> )

Other available figures: \_\_\_\_\_

What is the total generated amount of each type of waste (circle units of measurement)?

Non-regulated waste: 2012 - \_\_\_\_\_ (pounds tons yd<sup>3</sup>)

Infectious Waste: 2012 - \_\_\_\_\_ (pounds tons yd<sup>3</sup>)

Sharps: 2012 - \_\_\_\_\_ (pounds tons yd<sup>3</sup>)

Pathological Waste: 2012 - \_\_\_\_\_ (pounds tons yd<sup>3</sup>)

Chemotherapeutic Waste: 2012 - \_\_\_\_\_ (pounds tons yd<sup>3</sup>)

Do you have an onsite incinerator? Yes \_\_\_\_\_ No \_\_\_\_\_

How much of each type of waste is incinerated (circle units)?

Non-regulated waste: 2012 - \_\_\_\_\_ (pounds tons yd<sup>3</sup>)

Infectious Waste: 2012 - \_\_\_\_\_ (pounds tons yd<sup>3</sup>)

Sharps: 2012 - \_\_\_\_\_ (pounds tons yd<sup>3</sup>)

Pathological Waste: 2012 - \_\_\_\_\_ (pounds tons yd<sup>3</sup>)

Chemotherapeutic Waste: 2012 - \_\_\_\_\_ (pounds tons yd<sup>3</sup>)

List name and address of the carrier that hauls each type of waste?

Non-regulated waste: \_\_\_\_\_

Infectious Waste: \_\_\_\_\_

Sharps: \_\_\_\_\_

Pathological Waste: \_\_\_\_\_

Chemotherapeutic Waste: \_\_\_\_\_

Incinerator Ash: \_\_\_\_\_

What is the final destination of each type of waste?

Non-regulated waste: \_\_\_\_\_

Infectious Waste: \_\_\_\_\_

Sharps: \_\_\_\_\_

Pathological Waste: \_\_\_\_\_

Chemotherapeutic Waste: \_\_\_\_\_

Incinerator Ash: \_\_\_\_\_

## APPENDIX C

### Delaware County Solid Waste Management Plan Hospital Waste Survey (continued)

List future disposal plans for each type of waste:

Non-regulated waste: \_\_\_\_\_  
Infectious Waste: \_\_\_\_\_  
Sharps: \_\_\_\_\_  
Pathological Waste: \_\_\_\_\_  
Radioactive Waste: \_\_\_\_\_  
Chemotherapeutic Waste: \_\_\_\_\_  
Incinerator Ash: \_\_\_\_\_

Incinerator:

Permit #: \_\_\_\_\_  
Permitted capacity: \_\_\_\_\_  
Estimated life: \_\_\_\_\_  
Modification/installation plan: \_\_\_\_\_

If necessary, include a separate sheet.

Describe waste disposal procedures for each type of waste. Include collection frequency; types of containers; who collects the waste; as well as any other information you feel is pertinent.

Non-regulated waste: \_\_\_\_\_  
\_\_\_\_\_

Infectious Waste: \_\_\_\_\_  
\_\_\_\_\_

Sharps: \_\_\_\_\_  
\_\_\_\_\_

Pathological Waste: \_\_\_\_\_  
\_\_\_\_\_

Radioactive or Chemotherapeutic Waste: \_\_\_\_\_  
\_\_\_\_\_

### Recycling

What items are currently being recycled? List by item, tonnage recycled in 2012, as well as recyclers' name and address. \_\_\_\_\_  
\_\_\_\_\_

Do you have future plans to expand your recycling program? If yes, briefly describe. \_\_\_\_\_

## APPENDIX D

### FIRST AMENDMENT TO AMENDED AND RESTATED TRANSFER STATION OPERATIONS AND DISPOSAL AGREEMENT

This First Amendment to Amended and Restated Transfer Station Operations and Disposal Agreement (“Amendment”) is made this 1<sup>st</sup> day of January, 2012, by and between Waste Management of Pennsylvania, Inc. (“WMPA” or “Contractor”) and the Delaware County Solid Waste Authority (“Authority”) (jointly the “Parties”).

**WHEREAS**, the Authority and Empire Sanitary Landfill, Inc. entered an Agreement dated November 16, 1995, regarding the transportation of the Authority’s solid waste to certain disposal facilities and the operation of the Authority’s transfer stations (“Agreement”); and

**WHEREAS**, WMPA is the successor in interest to Empire Sanitary Landfill, Inc., and its rights and obligations under the Agreement; and

**WHEREAS**, effective January 1, 2011, the Agreement was amended and restated to provide, among other things, for a five-year extension through December 31, 2015; and

**WHEREAS**, the Parties after negotiations now desire to further amend the Agreement as provided herein.

**NOW THEREFORE**, in consideration of the promises and mutual obligations contained herein, the receipt and sufficiency of which are acknowledged, the Parties agree as follows:

1. **Rate Reduction for Transfer Station #1 to Covanta** – Pursuant to Section I.C.3. of the Agreement, the Authority has negotiated a shorter approved route between Transfer Station #1 and Covanta. Accordingly, commencing January 1, 2012, and for as long as the shorter approved route between Transfer Station #1 and Covanta is in use, Section I.C.1. of the Agreement shall be amended to substitute the following rates for the transportation of waste from Transfer Station #1 to Covanta only:

**January 1, 2012 – December 31, 2012: \$21.50/ton**

## APPENDIX D

January 1, 2013 – December 31, 2013: \$22.00/ton

January 1, 2014 – December 31, 2014: \$22.50/ton

January 1, 2015 – December 31, 2015: \$23.00/ton

The foregoing amended rates shall be subject to all adjustments provided for in the Agreement. If for any reason use of the shorter approved route is terminated at any time during the remaining Term of the Agreement, as of the date of such termination the rate for Transfer Station #1 to Covanta will revert to the original rates provided in the amended and restated Agreement (*i.e.*, each annual rate will be increased by \$.50/ton).

2. **Rates for Alternate Disposal Destinations** – Pursuant to I.B.1. of the Agreement, the Parties have negotiated the following rates for the transportation of waste, authorized by the Authority, to these designated alternate disposal facilities:

### **Transfer Station # 3 to Rolling Hills Landfill**

January 1, 2012 – December 31, 2012: \$35.92/ton

January 1, 2013 – December 31, 2013: \$36.42/ton

January 1, 2014 – December 31, 2014: \$36.92/ton

January 1, 2015 – December 31, 2015: \$37.42/ton

### **Transfer Station # 1 to Rolling Hills Landfill**

January 1, 2012 – December 31, 2012: \$36.92/ton

January 1, 2013 – December 31, 2013: \$37.42/ton

January 1, 2014 – December 31, 2014: \$37.92/ton

January 1, 2015 – December 31, 2015: \$38.42/ton

### **Transfer Stations #1 and # 3 to GROWS/Tullytown/GROWS North**

January 1, 2012 – December 31, 2012: \$74.42/ton

## APPENDIX D

January 1, 2013 – December 31, 2013: \$74.92/ton

January 1, 2014 – December 31, 2014: \$75.42/ton

January 1, 2015 – December 31, 2015: \$75.92/ton

The foregoing rates shall be subject to all adjustments provided for in the Agreement.

3. Transfer Station Maintenance and Improvements – Section V.I. of the June 1, 2005 Amendment shall be deleted in its entirety and the November 16, 1995 Agreement, Sections II.J.; III.O.; and III.M. are hereby reinstated.

4. Except as stated in this Amendment, all provisions of the Agreement shall remain unchanged and in full force and effect.

IN WITNESS WHEREOF, the Parties have signed this First Amendment to Amended and Restated Transfer Station Operations and Disposal Agreement on the date first written above.

→ WASTE MANAGEMENT OF PENNSYLVANIA, INC.

By: \_\_\_\_\_

Title: \_\_\_\_\_

*Joseph W. Vasturia*  
*CEO/Chairman*

→ DELAWARE COUNTY SOLID WASTE AUTHORITY

By: \_\_\_\_\_

Title: \_\_\_\_\_

*Robert C. [Signature]* vice president  
*Vice President, Waste Management of Pennsylvania*

Witness: \_\_\_\_\_

Title: \_\_\_\_\_



## APPENDIX E

Ordinance No. 2702  
Upper Darby Township  
Delaware County, Pennsylvania

AN ORDINANCE OF UPPER DARBY TOWNSHIP  
DELAWARE COUNTY, PENNSYLVANIA, REGULATING  
DISPOSAL OF MUNICIPAL SOLID WASTE FROM THE MUNICIPALITY;  
REQUIRING DISPOSAL AT APPROVED SITE;  
PROVIDING FOR LICENSING OF SOLID WASTE COLLECTORS;  
PROVIDING FOR REGULATIONS AND PENALTIES;  
ENTERING INTO A JOINT COOPERATION AGREEMENT  
WITH THE COUNTY OF DELAWARE, PENNSYLVANIA;  
AND ADOPTING THE DELAWARE COUNTY  
SOLID WASTE MANAGEMENT PLAN

WHEREAS, the MUNICIPALITY (as hereinafter defined) finds it necessary to regulate the collection of Municipal Solid Waste (as hereinafter defined) generated within its boundaries in order to protect the public health, safety, and welfare of its taxpayers and residents; and

WHEREAS, Act No. 180 of July 12, 1972, 53 P.S. §§ 481 et seq., authorizes a municipality to enter into joint cooperation agreements with other municipalities in the exercise or in the performance of their respective governmental functions, powers, or responsibilities; and

WHEREAS, the Pennsylvania Solid Waste Management Act of 1980, as amended, 35 P.S. §6018.101 et seq. (hereinafter referred to as the "Act"), authorizes a municipality to require by ordinance that all municipal wastes generated within its jurisdiction shall be disposed of at a designated facility; and

## APPENDIX E

WHEREAS, pursuant to the provisions of the Act, the Delaware County Council has caused to be prepared the Delaware County Solid Waste Management Plan of 1985, which was reviewed by the Pennsylvania Department of Environmental Resources, revised, and is dated December, 1986 (the "County Plan"), which recommends that for the foreseeable future the solid waste from this Municipality be disposed of by means of regional facilities authorized by the County, the Delaware County Solid Waste Authority, and/or the Authority's contractor (hereinafter collectively referred to as the "County"); and

WHEREAS THE COUNTY PLAN, in February, 1987, received preliminary approval from the Pennsylvania Department of Environmental Resources, with final DER approval conditional upon the County obtaining such municipal adoptions of the County Plan as may be necessary for its implementation; and

WHEREAS, the County Plan concludes that a County-wide solid waste disposal system should include a resources recovery plant or plants located within the County, because it would be the most environmentally sound and cost-effective method of disposing of Municipal Solid Waste within the County; and

WHEREAS, in order to obtain the environmental, economic, and public benefits from the plant or plants as discussed in the County Plan, it is necessary that commitments be obtained from the local municipalities within the County as to the use of the plant or plants for the disposal of Municipal Solid Waste from such municipalities; and

## APPENDIX E

WHEREAS, Upper Darby Township has full authority under the applicable laws to provide for the management of Municipal Solid Waste within its boundaries as hereinafter provided; and

WHEREAS, the form of this Ordinance has been approved by the County, and it has been, or will be, included in the County's Solid Waste Management Plan, which has been or will be filed with the Pennsylvania Department of Environmental Resources ("DER"); and

WHEREAS, the County agrees to assist in the implementation of the County Plan, but only after this Ordinance has been enacted by a sufficient number of municipalities in the County to make the construction of such plant or plants as proposed in the County Plan feasible; and

WHEREAS, under the Act, any municipality with a population density in excess of three hundred (300) persons per square mile, or has a solid waste disposal problem, must develop a solid waste management plan to be approved by DER but may, at its option and with the County's agreement, delegate this duty to the County; and

WHEREAS, this Municipality has delegated this aforesaid duty to the County, and the County has accepted this responsibility.

NOW, THEREFORE, IT IS HEREBY ENACTED AND ORDAINED BY THE Council of Upper Darby Township as follows:

1. DEFINITION. The following terms shall have the following meaning in this Ordinance:

## APPENDIX E

(a) "Collector" - Any person collecting or transporting Municipal Solid Waste for owners or occupants of property in the Municipality, including the Municipality itself if it undertakes the collection of Municipal Solid Waste directly, and any business or institution within the Municipality which generates Municipal Solid Waste and uses its own employees and equipment for the collection and transport of the waste.

(b) "Municipal Solid Waste" - Any garbage, refuse, industrial, lunchroom or office waste, and other material including solid or semi-solid material generated in residential, municipal, commercial, or institutional establishments and from community activities, and other solid waste which is within the definition of "Municipal Solid Waste" as set forth in the Act and which the County, Authority, or Contractor by its ordinance or regulations is willing to accept at the plant, but excluding: (i) any liquid waste or sludge, (ii) all wastes which are defined by existing or future Federal or State Law or Regulations as hazardous waste or industrial residual waste, (iii) any waste which may be marketable and which is intentionally segregated for purposes of recycling, and (iv) materials specifically excluded under applicable County Ordinances.

(c) "Contractor" - Shall mean one or more contractors with whom the County or the Delaware County Solid Waste Authority (hereinafter referred to as "Authority") contracts

## APPENDIX E

for construction and operation of the proposed resource recovery plant or plants, or other Solid Waste Facilities.

(d) "Municipality" - Shall mean Upper Darby Township.

(e) "Person" - Any individual, partnership, association, corporation, or governmental entity, with the exception of the County, Authority, or designated Contractor.

(f) "Solid Waste Facility" - Any site owned and operated by the County, the Authority, or its designated Contractor for the purpose of transfer, processing, or disposal of Municipal Solid Waste, including landfills, resource recovery plants, and transfer stations.

(g) "Plant" - The energy and/or material recovery facility or facilities, transfer station or solid waste plants owned by the County or Authority or the Contractor, including all associated property and equipment.

(h) Certain terms used herein are also defined in the recitals hereto.

2. PROHIBITIONS. It is hereby declared to be unlawful and a public nuisance for any person to accumulate upon any property in this Municipality, any Municipal Solid Waste or to dispose of it except in accordance with this Ordinance, and other applicable laws, ordinances or regulations.

3. COUNTY/AUTHORITY OPERATIONS AND CHARGES. The Municipality has been advised by the County that the Solid Waste Plan proposes to provide for a plant or plants which will

## APPENDIX E

be operated efficiently and economically by the Contractor and/or by the County and in accordance with all applicable laws and regulations, and also that the Contractor and/or the County will impose reasonable charges, which will be uniform among all classes of users of the plant or plants.

4. OPERATIONS BY LICENSED COLLECTORS. Except as it pertains to Municipal Solid Waste collected directly by this Municipality, collectors of Municipal Solid Waste generated within the Municipality must be licensed by the Municipality and shall be responsible for collecting Municipal Solid Waste from properties in the Municipality pursuant to a contract between them and the Municipality and/or contracts between them and the owners, users or occupants of properties.

5. DISPOSAL AT DESIGNATED SITE. All Collectors shall deliver and dispose of all Municipal Solid Waste collected within the Municipality at the Solid Waste Facility designated by the County subject to such reasonable regulations for the operation thereof as may be established by the County and/or Contractor. Delivery and disposal at any other place shall be a violation of this Ordinance and cause for revocation of the Collector's license, except in special circumstances approved in advance by the Municipality and the County and/or Contractor. All Collectors shall comply with their operation with all applicable laws, ordinances, and regulations pertaining to the collection and transportation of Municipal Solid Waste.



## APPENDIX E

6. PRIVATE DUMPS, TRANSFER STATIONS, AND LANDFILLS PROHIBITED. No person shall use or permit to be used any property within the Municipality as a public or private dump, transfer station, or landfill for Municipal Solid Waste, whether generated within the Municipality or elsewhere, without the express written approval of the Municipality.

7. PENALTIES. Any person who shall violate any provision of this Ordinance shall, upon conviction thereof, in a summary proceeding before a District Justice, be sentenced to pay a fine of not more than Three Hundred Dollars (\$300.00) and, in default of payment thereof, shall be committed to the County jail for a period not exceeding thirty (30) days; and each day's continuance of a violation of this Ordinance as well as each truckload of illegally delivered trash shall constitute a separate offense.

8. ABATEMENT OF NUISANCE. In addition to the remedies provided in Section 7 herein, any continued violation of this Ordinance or other applicable law which shall constitute a nuisance in fact, or which in the opinion of the governing body of this Municipality shall constitute a nuisance, may be abated by proceeding against the violator in a court of equity for relief.

9. REGULATIONS. The collection of Municipal Solid Waste in the Municipality and the disposal thereof shall be subject to such further reasonable rules and regulations as may from

## APPENDIX F

time to time, be promulgated by the governing body of the Municipality, including but without limitation regulations as to the form of license application, the amount of fee to be charged for said licenses, and the terms of the licenses and license issuance procedures: PROVIDED, HOWEVER, that no such rules and regulations shall be contrary to the provisions of this Ordinance, the County Solid Waste Plan, or other applicable law.

10. AMENDMENTS, CONTRACT. The Municipality reserves the right to amend this Ordinance or repeal it at any time: PROVIDED, HOWEVER, that the requirement for use of the designated Solid Waste Facility for disposal of Municipal Solid Waste from the Municipality shall not be amended or repealed without the prior express written approval of the County during the term of the contract between the County (or Authority) and Contractor providing for the construction and operation of the Plant, which contract shall have a term of twenty-five (25) years. For the purposes of securing the Contractor's financing, such requirement shall be deemed to be a contract between the County, the Contractor, and the Municipality, which the Municipality (subject to the terms of the JOINT COOPERATION AGREEMENT set forth below) agrees to enforce so that the Municipal Solid Waste from the Municipality will be available to provide a source of energy for the Plant. If the Municipality is not now a Collector but in the future it becomes a

## APPENDIX E

Collector it agrees to deliver all Municipal Solid Waste so collected to the Plant.

### 11. JOINT COOPERATION AGREEMENT.

(a) Municipality agrees to deliver or cause to be delivered during the term of this Agreement all Municipal Solid Waste, as defined herein, generated within the Municipality for disposal at a facility designated by the County.

(b) County agrees to accept for disposal all such Municipal Solid Waste described in subsection (a) above upon completion and commencement of operation of the Plant in accordance with a contract, containing terms satisfactory to the County, with the Contractor providing for construction and operation of the plant.

(c) The term of this Agreement shall be for a period of twenty-five (25) years, and said term shall commence on the date the County advises the Municipality that the Plant is operational. The Municipality at its option may terminate this Agreement with thirty (30) days' written notice to the County in the event that the Municipality will incur substantial costs over and above the costs generally accepted by the other municipalities in delivering Municipal Solid Waste to the County during the term of this Agreement, provided the Municipality has first obtained final approval from the Department of Environmental Resources for their own Plan under the Act, or an approval from the Department for a modification that brings the

## APPENDIX E

Municipality under another Plan that has already obtained final approval. Upon any such termination of this Agreement by the Municipality, the County, the Authority, and/or the County's Contractor shall be relieved of any responsibility to accept and dispose of Municipal Solid Waste generated with the Municipality. Any such termination of this Agreement by the Municipality shall constitute a repeal, whether express or implied, of Section 12 of this Ordinance.

(d) The County shall hold harmless and defend the Municipality from any suit, claim or action challenging the legality of this Ordinance against the Municipality. In the event that any such suit, claim or action is brought against the Municipality, the Municipality shall authorize the County, through its designated legal counsel, to defend against the same, and the Municipality shall cooperate with the County in said defense and shall give the County Solicitor notice of any such suit, claim or action within five (5) days of the municipality's receiving notice thereof.

### 12. ADOPTION OF SOLID WASTE MANAGEMENT PLAN.

(a) DER has recommended that the requirements of the Solid Waste Management Act can best be accomplished on a County-wide basis.

(b) The Municipality, by formal resolution dated February 19, 1986, authorized the County to prepare the Solid Waste Management Plan on the Municipality's behalf.

## APPENDIX E

(c) The County, through the staff of its Public Works Department, its Planning Commission, and Charles M. Harris and Associates, Inc., Consulting Engineers, prepared a ten-year plan for Solid Waste Management.

(d) The appropriate municipal officials of this Municipality have reviewed the findings and recommendations of the Plan as it affects this Municipality, have found the plan acceptable, and have recommended that the Plan be adopted.

(e) The Municipality, accordingly, hereby accepts and adopts the Solid Waste Management Study prepared by the County as the ten-year Plan for Solid Waste Management required by the Act.

(f) The County is hereby authorized to submit the Plan to DER for the final approval on behalf of the Municipality.

13. SEVERABILITY. If any part of this Ordinance is for any reason found to be illegal or invalid, such illegality or invalidation shall not affect any of the remaining parts of this Ordinance, which shall continue to be fully operative as if the illegal or invalid part had not been enacted.

14. REPEALER. All provisions of any other Ordinance which are inconsistent with the provisions of this Ordinance are hereby repealed.

15. EFFECTIVE DATE. This Ordinance shall become effective upon enactment. Notwithstanding the foregoing, Municipality shall have neither the right or the obligation to

**APPENDIX E**

dispose of its Municipal Solid Waste at the Plant which is contemplated under this Ordinance until said Plant is constructed and fully operational.

ENACTED AND ORDAINED, this 2nd day of September, A.D., 1987.

UPPER DARBY TOWNSHIP

BY: *Rudolph A. D'Alesio*  
RUDOLPH A. D'ALELIO  
VICE PRESIDENT OF COUNCIL

Attest: *Edwin J. Truitt*  
EDWIN J. TRUITT  
Secretary of Council

Ordinance No. 2702 above is hereby approved this 2nd day of September, A.D., 1987.

*James J. Ward*  
JAMES J. WARD, Mayor

Attest: *F. Raymond Shay*  
F. RAYMOND SHAY  
Chief Administrative Officer

# **APPENDIX F**

## **Delaware County Solid Waste Advisory Committee Minutes**



# **DELAWARE COUNTY SOLID WASTE ADVISORY COMMITTEE (SWAC)**

Meeting Minutes from March 11, 2014

A meeting of the Delaware County Solid Waste Advisory Committee (SWAC) was held on Tuesday, March 11, 2014, in the first floor conference room of the Authority's office located at Rose Tree Park ~ Hunt Club, 1521 N. Providence Road, Media, PA 19063. After allowing time for members to refresh their Plan copy by inserting updated pages, the meeting was called to order by SWAC Chairman Susan Cordes at 2:10 p.m.

Member attendees included:

Hon. Joseph Kelly	Borough Representative
Brian Vadino	Citizens' Group Representative
Karen Holm	Delaware County Planning Department
Joseph Sebzda	Landfill Representative
Michael R. McNichol	Director, DCSWA
Susan M. Cordes	DCSWAC Chairman & County Recycling Coordinator
Michele Campellone	DCSWA / SWAC Secretary
Michael F.X. Gillin, Esq.	DCSWA Solicitor

Also in attendance was Butch Walton, a Waste Management Representative.

Mrs. Cordes explained that the new pages consisted of:

- Legal Advertisements for the Plan
- A copy of e-mail submissions of the Plan to Municipalities, County Council, Planning and County Health Departments dated October 24<sup>th</sup>
- A copy of the final e-mail submission to the above, along with a Sample Municipal Resolution.
- Resolutions received from Concord Township and Marcus Hook Borough.
- Written Comment and Response.

Mrs. Cordes stated that the Plan was open for Public Comment beginning October 22, 2013. No one came to the DCSWA's Main Office during this period to review the Plan. One written comment was mailed to the Chairman regarding the County's Covanta contract. A written response (both of which have become part of this Plan) was written by our solicitor on December 13, 2013. No further communications has been received.

Mrs. Cordes stated that she also met with the Delaware County Consortium of Government Officials on November 19, 2013, which was after the Plan was sent electronically to Municipal Managers. She briefly explained the purpose of the Plan and requested that they draft Resolutions approving the Plan. It was requested that the Managers be provided with a Sample Resolution which was submitted to them via e-mail on February 20, 2014.

Mrs. Cordes stated that while the SWAC was set to reconvene on Tuesday, January 21, 2014 it was cancelled due to a snowstorm which blanketed the area. This made rescheduling difficult as it seemed to snow every third day from December through March. Consequently, the SWAC met today, March 11, 2014, to go about finalizing the Plan as written.

Joseph Kelly motioned to accept the Plan as written, seconded by Michael McNichol and with no discussion, was unanimously approved.

Mrs. Cordes stated that once again in an effort to conserve paper, the Delaware County 2013 Solid Waste Management Plan Substantial Revision will be copied on CDs. Copies will be retained in the Solid Waste Authority's Main Office and will also be distributed to PA DEP, County Council, SWAC members, all municipalities and libraries in the County.

Finally, Mrs. Cordes thanked all those in attendance for their efforts in drafting the current Plan. She stated that going forward the SWAC would meet at least annually to keep abreast of current issues facing the County. Beginning in 2020, we will reconvene the SWAC on a more formal basis to begin working on the 2023 SWMP.

At this point the meeting was opened for questions/comments. Aside from comments regarding a job well done by various members, there were other comments.

Joseph Kelly motioned to adjourn the meeting, seconded by Michael Gillin; with no discussion, adjournment was unanimously approved.

Respectfully submitted

  
Michele Campellone, DCSWA / SWAC Secretary

# DELAWARE COUNTY SOLID WASTE ADVISORY COMMITTEE (SWAC)

Meeting Minutes from October 8, 2013

A meeting of the Delaware County Solid Waste Advisory Committee (SWAC) was held on Tuesday, October 8, 2013, in the first floor conference room of the Authority's office located at Rose Tree Park ~ Hunt Club, 1521 N. Providence Road, Media, PA 19063. After allowing time for members to refresh their *draft copy* by inserting updated pages, the meeting was called to order by SWAC Chairman Susan Cordes at 2:05 p.m.

Member attendees included:

Hon. Joseph Kelly	Borough Representative
Phoebe Snow	City Representative
John Ryan	1 <sup>st</sup> Class Township Representative
James McGinn	Solid Waste and Recycling Industry
David Lasensky	Solid Waste and Recycling Industry
Brian Vadino	Citizens' Group Representative
Karen Holm	Delaware County Planning Department
Joseph W. Vasturia	C.E.O., Delaware County Solid Waste Authority (DCSWA)
Michael R. McNichol	Director, DCSWA
Ann Ryan	PA DEP Representative
Susan M. Cordes	DCSWAC Chairman & County Recycling Coordinator
Michele Campellone	DCSWA / SWAC Secretary
Michael F.X. Gillin, Esq.	DCSWA Solicitor

A motion to approve the September 24, 2013 minutes was made by Mr. Kelly; seconded by Mr. McGinn and were unanimously approved.

Mrs. Cordes explained that the new pages were updates to the previous draft Plan. She explained that the changes they received today were mostly grammatical in nature with updated maps (2A, 2B, 4A and 4B) which were finally provided by the Planning Department. With their being no new substantial revisions, Mrs. Cordes asked that the SWAC approve the current 2013 Delaware County Substantial Plan be approved by the SWAC in order to submit the Plan to municipalities and make it available to the public for comment. A Public Notice will be published in the Delaware County Daily Times for two consecutive weeks and that the *Draft Plan* will be available for review and comment at the Solid Waste Authority's Main Office, 1521 N. Providence Road, Media, PA beginning October 22, 2013. A motion to accept the Plan was made by Mr. Kelly, seconded by Mr. Ryan and was unanimously approved.

The 2013 Delaware County Solid Waste Management Plan, Substantial Revision will be forwarded to Delaware County Council, municipalities, County Health Department via e-mail in a .pdf file for their review along with PA DEP. (Planning has their copy.) PA DEP has also been provided a hard copy via Mrs. Ryan for review by the Department. Mrs. Cordes indicated

that the SWAC would meet again on Tuesday, January 21, 2014 to discuss any comments that are received. Once the Plan has been approved, CD copies will be sent to each of the above.


Mr. Kelly stated that he would be attending a meeting of Borough Officials shortly and would advise them that our Plan is now in the review stage.

The floor was then opened up to comments/questions.

As indicated above, the next scheduled meeting will be held at 2 p.m. on January 21, 2014 at the DCSWA Office.

With the absence of further business, Mr. Kelly motioned to adjourn which was seconded by Mr. Ryan at 2:25 p.m. and passed by a unanimous vote.

Respectfully submitted

  
Michele Campellone, DCSWA / SWAC Secretary

# DELAWARE COUNTY SOLID WASTE ADVISORY COMMITTEE (SWAC)

Meeting Minutes from September 24, 2013

A meeting of the Delaware County Solid Waste Advisory Committee (SWAC) was held on Tuesday, September 24, 2013, in the first floor conference room of the Authority's office located at Rose Tree Park ~ Hunt Club, 1521 N. Providence Road, Media, PA 19063. After allowing ten minutes for members to refresh their *draft copy* by inserting updated pages, the meeting was called to order by SWAC Chairman Susan Cordes at 2:10 p.m.

Member attendees included:

Hon. Joseph Kelly	Borough Representative
Phoebe Snow	City Representative
James McGinn	Solid Waste and Recycling Industry
David Lasensky	Solid Waste and Recycling Industry
Joseph Sebzda	Landfill Representative
Brian Vadino	Citizens' Group Representative
Karen Holm	Delaware County Planning Department
Joseph W. Vasturia	C.E.O., Delaware County Solid Waste Authority (DCSWA)
Michael R. McNichol	Director, DCSWA
Ann Ryan	PA DEP Representative
Susan M. Cordes	DCSWAC Chairman & County Recycling Coordinator
Michele Campellone	DCSWA / SWAC Secretary
Michael F.X. Gillin, Esq.	DCSWA Solicitor

A motion to approve the August 20, 2013 minutes was made by Mr. Kelly; seconded by Mr. Vasturia and were unanimously approved.

Mrs. Cordes explained that the new pages were updates to the previous draft Plan. The Delaware County Planning Department was finally able to provide the requested maps; information no longer pertinent was deleted; as well as new information added. The Appendices have been rearranged in a more logical order.

Mrs. Cordes asked Mr. Lasensky if he had any further information on the landfill that was attempting to open approximately 4 hours away. He indicated he had no further knowledge but would check with his source and get back to her.

Mrs. Cordes provided information on an upcoming Shred-It Event and indicated that staying abreast of recycling initiatives is what works best for us (Delaware County). She asked everyone in attendance to once again look over the Plan. Aside from the distributed pages, minimal changes were made to the body of the Plan, mainly a few typos, grammar and some changes requested by the County's Planning Department. Pages 1 through 59 will be duplicated and distributed at the next meeting for final review by the SWAC. There have been no changes made to pages 60 through 69.

At the next meeting Mrs. Cordes stated that she will be requesting that the SWAC finalize the 2013 Solid Waste Management Plan. It will then be advertised and open for a ninety (90) day Public Comment Period and submitted to PA DEP for their review.

The floor was then opened up to comments/questions.

The next scheduled meeting will be held at 2 p.m. on October 8, 2013 at the DCSWA Office.

With the absence of further business, Mr. Kelly motioned to adjourn which was seconded by Mr. McGinn at 2:25 p.m. and passed by a unanimous vote.

Respectfully submitted

  
Michele Campellone, DCSWA / SWAC Secretary

# **DELAWARE COUNTY SOLID WASTE ADVISORY COMMITTEE (SWAC)**

Meeting Minutes from August 20, 2013

A meeting of the Delaware County Solid Waste Advisory Committee (SWAC) was held on Tuesday, August 20, 2013, in the first floor conference room of the Authority's office located at Rose Tree Park ~ Hunt Club, 1521 N. Providence Road, Media, PA 19063. The meeting was called to order by SWAC Chairman Susan Cordes at 2:05 p.m.

Member attendees included:

Michael Trio	Second Class Township
Hon. Joseph Kelly	Borough Representative
Phoebe Snow	City Representative
James McGinn	Solid Waste and Recycling Industry
David Lasensky	Solid Waste and Recycling Industry
Joseph Sebzda	Landfill Representative
Brian Vadino	Citizens' Group Representative
Alex Charlton	Business & Industry Representative
Joseph W. Vasturia	C.E.O., Delaware County Solid Waste Authority (DCSWA)
Michael R. McNichol	Director, DCSWA
Ann Ryan	PA DEP Representative
Susan M. Cordes	DCSWAC Chairman & County Recycling Coordinator
Michele Campellone	DCSWA / SWAC Secretary

Mrs. Cordes opened the meeting and asked members to introduce themselves. She thanked everyone for agreeing to serve on the committee and explained why each member was chosen, stating she felt that his/her background would help in continuing to develop this Plan that was begun in 2009.

For the new member, Mrs. Cordes provided an overview of the purpose of the Plan and the responsibility of each member. Since the Plan has been evolving since our meetings of 2009, she provided an updated Draft Copy of the 2013 Plan to each member and discussed the sections of the Plan, Tables and Exhibits. She indicated that we were still waiting for the Delaware County Planning Department to provide some Tables and Exhibits and expected to be able to provide them to the group at the next scheduled meeting.

Mrs. Cordes indicated in order to compile the Solid Waste Management Plan, letters were sent to each municipality advising them of our intent along with a questionnaire, a copy of which is included in this Plan. Letters and questionnaires have also been sent to private transfer stations, local hospitals, medical buildings, and automotive centers. We have worked with DELCORA to update the portion of the Plan as it pertains to sewage/sludge assurances.



The floor was then opened up to comments/questions.

Mr. Trio was looking for a clarification of how trash is transferred and asked about the process. Mr. Vasturia was able to elaborate for Mr. Trio as well as the group. Mr. Lasensky spoke of a new landfill approximately four hours away that would be opening in a month or two. He had no further information with regard to the landfill, however, to share.

The next two scheduled meetings will be September 24, 2013 and October 8, 2013, both at 2 p.m. at the DCSWA Office.

With the absence of further business, the Hon. Joseph Kelly motioned to adjourn which was seconded by James McGinn at 2:40 p.m.

Respectfully submitted

  
Michele Campellone, DCSWA / SWAC Secretary

**DELAWARE COUNTY SOLID WASTE AUTHORITY  
SOLID WASTE ADVISORY COMMITTEE**

Meeting Minutes from November 15, 2009

A meeting of the Delaware County Solid Waste Authority Advisory Committee (SWAC) was held on Tuesday, October 13, 2009, in the first floor conference room of the Authority's office located at Rose Tree Park ~ Hunt Club, 1521 N. Providence Road, Media, PA 19063. The meeting was called to order by SWAC Chairwoman Cordes at 2:05 p.m.

Member attendees included:

George Clement *standing in for*

James Sheldrake	Second Class Township
Shepard Garner	City Representative
James M <sup>c</sup> Ginn	Solid Waste and Recycling Industry
David Lasensky	Solid Waste and Recycling Industry
Brian Vadino	Citizens' Group Representative (Chester/Ridley/Crum Creek Watershed Assn.)

Steven Beckley *standing in for*

Karen Holm	Delaware County Planning Department
Joseph Sebzda	Landfill Representative
Ann Ryan	Pennsylvania Department of Environmental Protection
Joseph W. Vasturia	CEO, Delaware County Solid Waste Authority
Michael R. M <sup>c</sup> Nichol	Director, Solid Waste Management Division, DCSWA
Michael F.X Gillin, Esq.	DCSWA Solicitor
Susan M. Cordes	Delaware County Recycling Coordinator
Michele Campellone	DCSWA / SWAC Secretary

Meetings are open to the public. Other attendees included:

Ken Anderson	Republic Services
Tara L. Flynn	Drinker, Biddle & Reath, LLP

Minutes from the October 13, 2009 meeting along with changes and additions to the working copy were given to each member. Each member added them to their working copy. Members were given time to review the minutes. Mr. M<sup>c</sup>Ginn motioned to approve the minutes as written, seconded by Mr. Lasensky. Motion was approved.

Mrs. Cordes explained what changes have been made and discussed newly distributed pages. While explaining Table 2-9, Mrs. Cordes discovered that some of 2004's numbers were identical to 2005. She will review, make the necessary changes and distribute the revised pages at next month's meeting.

While discussing the county's HHW Program, Mr. Lasensky asked what the county did as far as recycling lead acid batteries brought to these events. He stated that his company would be

interested in partnering with the county with regard to lead acid battery recycling. Mrs. Cordes explained the current procedure: a local company arrives prior to the closing of the event; loads the batteries onto their truck; removing the batteries from the site shortly after closing for the day. Mr. Lasensky suggested different options. Mrs. Cordes stated that batteries must be removed that very day. Mr. Lasensky said he would check with his company and get back to her.


In reviewing Table 3-1, Mr. Lasensky informed the board that Accurate Trash and Recycling should be on the list of Transfer Stations. Mrs. Cordes stated she had talked to his office when they failed to return their questionnaire only to be told that they no longer operate a transfer station. Mr. Lasensky said, while that was true, they had just applied and received a permit for a New C&D Transfer Station. This type of transfer station will only accept construction and debris from builders providing new construction. This transfer station will operate from his site at 508 E. Baltimore Avenue, Lansdowne (Upper Darby Township). Mr. Lasensky was not aware if the transfer station is open to the public or whether it would operate 5 or 6 days per week. When asked, Mr. Lasensky stated he would get back to Mrs. Cordes the pertinent information as well as the permit number and total daily/yearly permitted tonnage.

Mr. Lasensky stated that Accurate Recycling has recently begun accepting shingles for recycling. He promised to provide Mrs. Cordes information as to where he sends this material for recycling. He stated further information will shortly be available on their website: [www.AccurateRecycling.com](http://www.AccurateRecycling.com). Mrs. Cordes stated, if he was in agreement, she would add shingle recycling along with his company's information to the County's Recycling Website. Mr. Lasensky agreed.

Each member was reminded to review the distributed pages and e-mail any changes to Mrs. Cordes prior to our next meeting which is scheduled for Tuesday, December 15<sup>th</sup> at 2.p.m.

With the absence of further business, at 2:38 p.m. Mr. M<sup>c</sup>Ginn motioned to adjourn; seconded by Mr. Lasensky.

Respectfully submitted,

  
Michele Campellone, DCSWA/SWAC Secretary

**DELAWARE COUNTY SOLID WASTE AUTHORITY  
SOLID WASTE ADVISORY COMMITTEE**

Meeting Minutes from October 13, 2009

A meeting of the Delaware County Solid Waste Authority Advisory Committee (SWAC) was held on Tuesday, October 13, 2009, in the first floor conference room of the Authority's office located at Rose Tree Park ~ Hunt Club, 1521 N. Providence Road, Media, PA 19063. The meeting was called to order by SWAC Chairwoman Cordes at 2:05 p.m.

Member attendees included:

Jack Ryan	First Class Township
James Sheldrake	Second Class Township
Hon. Joseph Kelly	Borough Representative
James M <sup>c</sup> Ginn	Solid Waste and Recycling Industry
Joseph Sebzda	Landfill Representative
Ann Ryan	Pennsylvania Department of Environmental Protection
Karen Holm	Delaware County Planning Department
Michael R. M <sup>c</sup> Nichol	Director, Solid Waste Management Division, DCSWA
Susan M. Cordes	Delaware County Recycling Coordinator
Michele Campellone	DCSWA / SWAC Secretary

Meetings are open to the public. Other attendees included:

Steven Beckley	Delaware County Planning Department
Edward A. (Tony) Manhertz	Republic Services of PA
Tara L. Flynn	Drinker, Biddle & Reath, LLP

Minutes from the September 15, 2009 meeting along with changes and additions to the working copy were given to each member. Each member added them to their working copy. Members were given time to review the minutes. Mr. Kelly motioned to approve the minutes as written, seconded by Mr. M<sup>c</sup>Ginn. Motion was approved.

Mrs. Cordes explained what changes had been made and discussed newly distributed pages. Mr. M<sup>c</sup>Ginn found that in Table 2-3 Ridley Park and Ridley Township's population had been reversed. Mrs. Cordes asked members to make the change and approval to not reprint the table; however, she advised that the change would be made and reflected in the final draft. Everyone was in agreement to this procedure.

Ann Ryan suggested that with all tables, it would be best to include a footnote indicating when each table was revised. Going forward all tables will include this change. It was agreed that all existing tables will be changed to include this footnote; updates for these tables will not be handed out. However, the change will be reflected in the final draft.

Questionnaires have been sent to all hospitals/medical facilities in the county and we are currently waiting for their responses. Additionally, the Planning Department is currently working to update the Sewage and Septage Sludge Facilities; Generation Summary of Water Sludge Facilities; as well as a list of handlers. They hope to be able to present them at November's meeting.

Mrs. Cordes stated that she is currently working on updating the Recycling Chapter and would like to hear from those present as to how they feel recycling has changed since the last Plan revision. Surveys were recently sent to all municipalities. She has seen in the last two years that a large number of municipalities have updated their recycling programs to include Single Stream or a combination of Co-mingled/Single Stream.

The Honorable Joseph Kelly from Clifton Heights believes that municipalities want to recycle more. Their residents want to be able to recycle more items curbside and now with the DCSWA instituting a fee for municipal trash, there is a definite benefit to municipalities, especially those having a Public Works Department that collect the items themselves. Last year, the average revenue being brought to a municipality for recycling was \$38.00 per ton. However, the economy worsened in the spring of 2009 and now recyclers are refusing to honor their contracts and are charging municipalities. He stated that while Clifton Heights is ready to expand their recycling program, for the time being they have decided to hold off. However, they are not sitting idly by but have placed containers for paper alongside their recycling igloos for glass and aluminum. Mr. Kelly stated that their Solicitor, Mr. Frank Catania, personally paid for two bicycles with baskets attached. They have two volunteers who go to shut-ins and the elderly's homes to pick up all grades of paper and place these items in the bins located at the township building. They are striving to expand their program as soon as economically feasible.

Mrs. Cordes stated that while questionnaires had been sent to municipalities requesting what types of drop off programs were available to their residents, not all programs

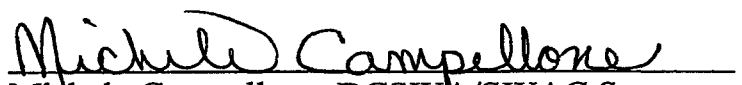
were listed. Certainly Clifton Heights' approach is rather unusual and yet very creative. She asked that if any of the members are aware of other types of recycling within their particular municipality to let her know by e-mail, phone, or bringing the information to subsequent meetings.

Mrs. Cordes asked the recyclers in the room if they felt the market would be turning around soon. Mr. Manhertz from Republic stated that the markets have steadily increased since January and as the economy comes back it will create more demand for recycled products. He is optimistic. Mr. M<sup>c</sup>Ginn from Opdenaker stated that his company has partnered with RecycleBank and offers coupons to residents for their efforts. However, he stated that recently quite a few companies have dropped out of the program, due to the current economy. Mr. M<sup>c</sup>Ginn agreed to provide a list of municipalities along with participating retailers.

Each member was reminded to review the distributed pages and e-mail any changes to Mrs. Cordes prior to our next meeting which is scheduled for Tuesday, November 17<sup>th</sup> at 2.p.m.

With the absence of further business, at 2:58 p.m. Jim M<sup>c</sup>Ginn motioned to adjourn; seconded by Mr. Kelly.

Respectfully submitted,

  
Michele Campellone, DCSWA/SWAC Secretary

**DELAWARE COUNTY SOLID WASTE AUTHORITY  
SOLID WASTE ADVISORY COMMITTEE**

Meeting Minutes from September 15, 2009

An initial meeting of the Delaware County Solid Waste Authority Advisory Committee (SWAC) was held on Tuesday, September 15, 2009, in the first floor conference room of the Authority's office located at Rose Tree Park ~ Hunt Club, 1521 N. Providence Road, Media, PA 19063. This first meeting was called to order by SWAC Chairwoman Cordes at 2:05 p.m.

Member attendees included:

Jack Ryan	First Class Township
James Sheldrake	Second Class Township
Hon. Joseph Kelly	Borough Representative
David Lasensky	Solid Waste and Recycling Industry
James McGinn	Solid Waste and Recycling Industry
Joseph Sebзда	Landfill Representative
Brian Vadino	Citizens' Group Representative (Chester/Ridley/Crum Creek Watershed Assn.)
Joseph W. Vasturia	C.E.O. Delaware County Solid Waste Authority
Michael R. M <sup>c</sup> Nichol	Director, Solid Waste Management Division, DCSWA
Steven Beckley	Delaware County Planning Department (Standing in for Karen Holm)
Susan M. Cordes	Delaware County Recycling Coordinator
Michele Campellone	DCSWA / SWAC Secretary

Mrs. Cordes opened the meeting and asked members to introduce themselves. She thanked everyone for agreeing to serve on the committee and explained why each member was chosen, stating she felt that his/her background would help in the development of the Plan.

An overview of the purpose and responsibility of each member was briefly discussed. Members were updated as to how the revision will be completed in an attempt to assure landfill capacity for the next ten years to the PA DEP and to re-establish Flow Control. Dates as listed on the Agenda were approved for future meetings. Mrs. Cordes stated that reminders of future meetings will be done via e-mail.



Notifications dated August 14, 2009 were sent to each Delaware County Municipality advising them of the SWAC's intent. A questionnaire was also sent in an attempt to update all pertinent municipal information. Mrs. Cordes stated that as of this date, 90% have been returned. Still waiting to be returned are questionnaires that have also been sent to local hospitals and medical buildings.

Mr. Beckley was given current information and asked to update the portion of the Plan as it pertains to sewage/sludge assurances. Steve hopes to be able to provide that information no later than our November meeting.

Mrs. Cordes then asked the solid waste and recycling representatives their thoughts on what problems/concerns/new initiatives they see that will affect the Plan. Messrs. Lasensky and McGinn conducted a spirited debate. Mr. Lasensky stated that this past year has been the first time he's seen the recycling market in such a decline. However, he expressed optimism that the market is turning around as he has seen the prices for newspaper and cardboard recently edging up. He believes, as does Mr. McGinn, that single stream recycling will take over the curbside market. As a result, they expect curbside recycling will surely increase; thereby reducing what is landfilled.

With absence of further business, the meeting was adjourned at 2:55p.m.

Respectfully submitted,

  
Michele Campellone, DCSWA/SWAC Secretary

## APPENDIX G

## PUBLIC NOTICE

**LEGAL NOTICES**

PUBLIC NOTICE Notice is hereby given that the Delaware County Municipal Solid Waste Management Plan - 2013 Substantial Revision, revised in October, 2013, will be available for public inspection and review beginning October 22, 2013 through January 22, 2014. Municipal waste will be directed to the Chester or Marple Transfer Stations which will transfer the waste to Covanta Delaware Valley, L.P. in the City of Chester. The ash residue will be directed to Delaware County owned Rolling Hills Landfill in Berks County. Commercial waste will be accepted at the above sites from permitted vehicles as well as at any private transfer station or landfill. To allow for continued landfill diversion, Delaware County's Recycling Programs are also discussed in detail. The Plan will be available for review between the hours of 8:30 a.m. - 4:00 p.m., Monday through Friday at the following location. Delaware County Solid Waste Authority Rose Tree Park ~ Hunt Club 1521 N. Providence Road Media, PA 19063 Comments on the Plan should be provided in writing and addressed to Susan Cordes, SWMP Chairman, c/o the above address. The next Solid Waste Advisory Committee Public Meeting will take place on Tuesday, January 21, 2014 at 2 p.m. at the address listed above. All written comments will be discussed and addressed at that time. Delaware County Council Thomas J. McGarrigle, Chairman Mario J. Civera, Jr., Vice Chairman Colleen P. Morrone John P. McBlain David J. White

Appeared in: ***Delaware County Daily Times*** on Wednesday, 10/16/2013  
and Wednesday, October 9, 2013

[Back](#)




## APPENDIX H Delaware County Solid Waste Authority

Rose Tree Park - Hunt Club  
1521 North Providence Road  
Media, PA 19063-1039  
610-892-9620 or 9621  
Fax: 610-892-9622

Joseph W. Vasturia, P.E.  
Chief Executive Officer

Board  
Joseph W. Vasturia, P.E.  
Chairman  
Thomas J. Judge, Sr.  
Vice Chairman

John E. Clark  
James J. Devenney  
Margaret A. Keegan  
Andrew J. Reilly, Esq.  
Mario J. Civera, Jr.

  
Michael F.X. Gillin, Esq.  
Solicitor

August 1, 2013

Ann Ryan, EPS  
PA DEP Southeastern Regional Office  
2 East Main Street  
Norristown, PA 19401

Dear Ms. Ryan:

Please accept this letter as notification of Delaware County's intent to revise/update our Solid Waste Management Plan. We will be working on a Substantial Plan Revision for the years 2013 through 2023.

Components of the Plan to be updated include but are not limited to: waste generation rates; a facilities' list for public and privately collected waste; and updating municipal and county waste and recycling programs.

We value your input which we expect will help to make our Plan as accurate and concise as possible. Therefore, I once again invite you to participate as the PA DEP liaison to our SWAC. We anticipate our meetings to resume in mid to late August and will advise once the first meeting date has been finalized. Meetings will once again be held at the Authority's office in Rose Tree Park.

Sincerely,

A handwritten signature in cursive script that reads "Susan M. Cordes".

Susan M. Cordes  
SWAC Chairman

cc: Joseph W. Vasturia, P.E., C.E.O.  
Calvin Ligons, PA DEP  
Maryanne Grace, Delaware County Executive Director



**APPENDIX I**  
**Delaware County Solid Waste Management Plan**  
**2013 Substantial Revision**  
**Public Comment Sheet**

Today's Date \_\_\_\_\_

**Name:** \_\_\_\_\_

**Address:** \_\_\_\_\_  
\_\_\_\_\_

**Phone #:** \_\_\_\_\_

**Comment:**  
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**Signature**

APPENDIX J

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RESTATED SERVICE AGREEMENT

between

DELAWARE COUNTY, PENNSYLVANIA

and

WESTINGHOUSE ELECTRIC CORPORATION

Acceptance Date – April 7, 1992

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RESTATED SERVICE AGREEMENT dated as of December 1, 1988,  
between WESTINGHOUSE ELECTRIC CORPORATION and THE COUNTY OF  
DELAWARE, PENNSYLVANIA.

RECITALS

WHEREAS, the Company has proposed to design, construct,  
start up, performance test, own, and operate and maintain for a  
period of at least twenty-five (25) years from the Scheduled  
(April 7, 1992)\*  
(Acceptance Date) or until the final maturity date of the first  
issue of Bonds issued under the Indenture, whichever is later, a  
Mass Burn Resource Recovery Facility for disposing of County  
Waste, producing saleable energy and recovering other Recovered  
Resources therefrom;

WHEREAS, the County has selected the Company in reliance  
on the skill, expertise and past successful experience with Mass  
Burn technology of the Company and its licensor and the financial  
qualification of the Company, to design, construct, start up,  
performance test, own and operate and maintain a Mass Burn  
Resource Recovery Facility, all in accordance with the terms of  
this Agreement;

WHEREAS, the Bonds have been or will be issued to  
finance a portion of the cost of the construction of the  
Facility;

WHEREAS, the Company has further proposed to provide the  
Equity Capital, which, together with the Bonds, will provide an  
amount at least equal to the Facility Price, and to dispose of

\* See 1992 Amendment to Restated Service Agreement  
P 6 (page 6) - Amendments to Section 6.01

County Waste in return for the Service Fee not later than the Scheduled Acceptance Date;

WHEREAS, the County will provide the Facility Site and will enter into the Facility Site Lease with the Company prior to the Construction Date;

WHEREAS, the Utility will, prior to the Construction Date, enter into an Electrical Sales Contract with the Company pursuant to which it shall purchase electric energy generated from Resource Recovery operations at the Facility;

WHEREAS, the parties wish to restate their respective rights and obligations hereunder to the extent such rights and obligations have been modified by mutual agreement from those contained in the original Service Agreement between the parties dated December 4, 1986, as amended; and

WHEREAS, the parties intend that from and after the date hereof this Restated Service Agreement shall supercede the said original Service Agreement and the Amendment to Service Agreement dated June 2, 1987.

NOW, THEREFORE, in consideration of the premises and of the mutual obligations undertaken herein, the parties hereby agree as follows:

#### ARTICLE I. - DEFINITIONS

1.01 Certain Definitions. As used in this Agreement, the following terms shall have the meanings set forth below:

"Acceptable Waste" means that portion of Solid Waste which can be Processed and has characteristics such as that collected and disposed of as part of normal municipal collection of Solid Waste in the County, such as, but not limited to: garbage, trash, rubbish, paper and cardboard, plastics, refuse, beds, mattresses, sofas, refrigerators, washing machines, bicycles, baby carriages, automobile or small vehicle tires (to the extent the environmental quality criteria of the Facility shall not be violated as a result of Processing such tires), as well as Processible portions of commercial and industrial Solid Waste, and wood and lumber, tree limbs, ties, logs and trees if no more than six (6) feet long and/or six (6) inches in diameter, branches, leaves, twigs, grass and plant cuttings, excepting, however, Unacceptable Waste and Hazardous Waste. If any governmental agency or unit having appropriate jurisdiction shall determine that any wastes which are not included, as of the Contract Date, within this definition of Acceptable Waste because they are considered harmful, toxic or dangerous to public health and welfare, are not harmful, toxic or dangerous, then such wastes shall be Acceptable Waste for purposes of this Agreement unless otherwise excluded under the definitions of Unacceptable Waste or Hazardous Waste.

"Acceptance" means that the Full Acceptance Standard has been met or, if the Full Acceptance Standard cannot be met, the Minimal Acceptance Standard has been met or, if the Minimal

Acceptance Standard cannot be met, the Substituted Acceptance Standard has been met.

"Acceptance Date" means the date on which Acceptance of the Facility occurs which shall be the date established pursuant to Section 2.13(f); provided, however, that the Acceptance Date shall not occur before the Scheduled Acceptance Date unless the Company has provided the County with written notice at least ninety (90) Days prior to the initiation of Acceptance Tests that the Acceptance Date may occur prior to the Scheduled Acceptance Date.

"Acceptance Test(s)" or "Acceptance Testing" means the test plan, as described and approved pursuant to Section 2.13(a).

"Affiliate" means a Person that controls, is controlled by or is under common control with the Company.

"Aggregate Service Fee Increase" has the meaning specified in Section 6.08(b)(ii)(C).

"Agreement" means this Service Agreement dated the Contract Date between the Company and the County, including the Schedules and any written modifications to the Schedules or to the Agreement pursuant to Section 9.12.

"Allocable Bonds" means the portion of the Bonds determined by multiplying the outstanding Bonds by a fraction, the numerator of which is 1500 Tons and the denominator of which is the Nameplate Capacity of the Facility, as adjusted in Section 4.04(d).

"Article" means an article of this Agreement.

"Authority" means the Delaware County Industrial Development Authority.

"Available County Acceptable Waste" means (i) Bypassed Waste, (ii) County Waste rejected by the Company solely pursuant to Section 4.09(b)(i)(2)(A) and (iii) County Waste accepted at the Facility and Processed by the Company (other than County Waste accepted pursuant to the first proviso in Section 4.09(b)(i)(2)).

"Billing Period" means each calendar month in each Billing Year, except that (a) the first Billing Period shall begin on the earlier of the Scheduled Acceptance Date or the Acceptance Date and shall continue to the last Day of the month in which such date occurs and (b) the last Billing Period shall end concurrently with the end of the final Billing Year.

"Billing Year" means the twelve month period commencing on the first Day of January and ending on the last Day of December immediately following the calendar year in which the earlier of the Scheduled Acceptance Date or the Acceptance Date occurs and each twelve calendar month period thereafter; except that (a) the first Billing Year shall include the period from the earlier of the Scheduled Acceptance Date or the Acceptance Date to the last Day of December in the calendar year in which such earlier date occurs and (b) the last Billing Year shall end concurrently with the earlier of the termination or expiration of the term of this Agreement.



"Bonds" means the bonds and indebtedness described in Section 3.05. "Bonds" shall not include indebtedness incurred to finance the Equity Capital.

"BTU" means British Thermal Unit.

"Business Day" means each Monday, Tuesday, Wednesday, Thursday, Friday and Saturday which is not a Legal Holiday.

"Bypassed Waste" means, on and after the earlier of the Scheduled Acceptance Date or the Acceptance Date, (1) County Waste delivered to the Facility but not Processed due to Company Fault, (2) County Waste diverted from the Facility at the Company's direction unless such direction results from the application of Section 4.09(b)(i)(1)-(3), and (3) that amount of Process Residue determined to be Bypassed Waste pursuant to Section 5.01(b)(4).

"Change in Law" means (a) the enactment, adoption, promulgation, repeal or modification after March 27, 1986 of any law be it federal, State, County, or other local law, ordinance, code, rule, regulation or similar legislation (exclusive of any such legislation that as of March 27, 1986, was (1) officially proposed with an effective date (DER Draft "BAT Determination for Municipal Waste Incinerator Energy Resource Recovery Facilities," dated March 13, 1986 will be deemed as effective on such date) on or before March 27, 1986, and (2) as to which the comment period has expired and any required hearings have been concluded in accordance with applicable procedures), or (b) the imposition of

any material conditions on the issuance or renewal of any official permit, license or approval after March 27, 1986, which, in the case of either (a) or (b), establishes requirements affecting the operating or capital costs of the Facility more burdensome than the most stringent requirements (1) in effect on March 27, 1986, (2) agreed to in any applications of the Company for official permits, licenses or approvals (copies of which have been furnished to the County) pending as of the Contract Date or (3) contained in any official permits, licenses, or approvals with respect to the Facility obtained as of the Contract Date, other than, in the case of either (2) or (3), requirements to comply with future laws, ordinances, codes, rules, regulations or similar legislation; provided, however, that a change in federal, State, County or any other tax law shall be a Change in Law prior to the Construction Date and that on and after the Construction Date such change in tax law shall not be a Change in Law.

"Company" means Westinghouse Electric Corporation a Pennsylvania corporation.

"Company Fault" means the unexcused nonperformance by the Company under this Agreement or the negligent or willful act or omission of an agent or employee of the Company rendering the County incapable of performing its obligations under this Agreement.

"Construction Date" means the date on which all the conditions precedent set forth in Article III have been met or

waived as evidenced by executed acknowledgments by the County and the Company, provided in accordance with Section 3.04.

"Consulting Engineer" means a nationally recognized consulting engineering company, with demonstrated experience in the area of Resource Recovery, which shall be CSI until such time as the County, in its sole discretion, terminates CSI and a replacement engineer is selected by the County.

"Contract Date" means December 4, 1986.

"Cost Substantiation" means, with respect to any cost, a certificate signed by an authorized representative of the Company and approved by a designated officer, or his designee, of the County stating the Company's reason for incurring the cost, the amount of such cost, including labor, materials, overhead and profit, if any, and the event or Section giving rise to the Company's right to incur such cost and that such cost is at a competitive price for the service or materials supplied. If the County does not object to any such certificate within thirty (30) Days, it shall be deemed approved. Disputes concerning any such costs shall be resolved by arbitration pursuant to Section 9.03.

"County" means the County of Delaware, Pennsylvania.

"County's Direction" has the meaning specified in Section 6.08(e)(i).

"County Fault" means the unexcused nonperformance by the County under the terms of this Agreement or the negligent or willful act or omission of an agent or employee of the County

rendering the Company incapable of performing its obligations under this Agreement.

"County Waste" means Acceptable Waste delivered to the Facility by, on behalf of, or by contract with the County.

"CSWA" means Chester Solid Waste Associates, a Pennsylvania limited partnership.

"Daily Debt Service" means (1) in the case of a fixed rate Bond, the sum of (a)  $1/180$  (calculated on the basis of a 360 Day year of twelve 30 Day months) of the amount of the interest on the Bonds that becomes due on the next succeeding semi-annual interest payment date with respect to the Bonds, plus (b)  $1/360$  (calculated on the basis referred to above) of the amount of the principal of and premium, if any, on the Bonds that becomes due on the next succeeding annual principal payment date with respect to the Bonds, less (c) any other amounts available in the debt service fund created under the Indenture for payment of the Bonds on such interest payment date or principal payment date (to the extent not previously credited under this clause (c)); or (2) in the case of a variable rate Bond, the sum of (a)  $1/365$ , or  $1/366$  during leap years, of the amount of the annual interest on such Bonds that becomes due or is estimated to become due, including the costs and fees of the Trustee and its agents, any depository fees and expenses, recording and filing fees under the Indenture, the Financing Agreement and other financing documents, estimated annual remarketing fees and any credit enhancement fee under

third party agreements associated with the Bonds on the next succeeding interest payment date with respect to the Bonds, with such estimates calculated based on a rate 150 basis points above the weighted average rate in effect in the last full interest period with respect to the Bonds prior to the Billing Period plus (b) 1/365 (or 1/366, as appropriate) of the amount of the principal of or premium, if any, on the Bonds that become due on the next succeeding annual principal payment date or sinking fund payment date with respect to the Bonds, less (c) any other amounts available in the debt service fund created under the Indenture for payment of the Bonds on such interest payment date, principal payment date, or sinking fund payment date, as the case may be (to the extent not previously credited under this clause (c)); provided, thirty (30) Days after each interest period any payments on the basis of Daily Debt Service shall be adjusted to the actual amount and any refund amount shall be credited to the next Billing Period, or additional payment shall be made within thirty (30) Days of such adjustment.

"Day" shall mean a 24-hour period of time, beginning at 12:01 A.M. in the eastern time zone of the United States, coinciding with a calendar day, whether or not a Saturday, Sunday or Legal Holiday.

"Design Waste" means Acceptable Waste having the characteristics described in Schedule 18.

"DER" means the Pennsylvania Department of Environmental Resources.

"Effective Date" means 12:01 a.m. on the Day which the Company specifies to the County in the notice referred to in Section 4.01 as the first Day on which the Facility is capable of Processing.

"Electrical Sales Contract" means any contract entered into by the Company with a public or private Person providing for the sale of electricity produced by the Facility, as the same may from time to time be amended, modified or supplemented in accordance with its terms.

"EPA" means the United States Environmental Protection Agency or its successor.

"Equity Capital" means cash (which may be derived from the net proceeds of debt obligations on which the Company is obligor or guarantor) in the amount of at least twenty percent (20%) of the Facility Price (as adjusted pursuant to Section 7.04(b), as applicable) provided or caused to be provided by the Company or another Person at the times and in the amounts set forth in Schedule 12.

"Escalation Factor" has the meaning specified in Schedule 15.

"Event of Default" has the meaning specified in Article VIII.

"Excess Guaranteed Tonnage" has the meaning specified in Section 4.05(b).

"Excess Tonnage Charge" has the meaning specified in Section 6.04.

"Extension Period" has the meaning specified in Section 4.04(a).

"Facility" means the Solid Waste Resource Recovery Facility and all additions and replacements thereto and improvements thereof, including all buildings, roadways, equipment and other improvements located or to be located on the Facility Site.

"Facility Price" means the price of the Work, as adjusted pursuant to Section 2.04, plus capitalized interest on and issuance costs of the Bonds.

"Facility Site" means the real property located in the County and described in Schedule 3, upon which the Facility is to be constructed.

"Facility Site Lease" means the ground lease agreement between CSWA and the Company for the Facility Site attached as Schedule 4, which shall be in form and substance satisfactory to the County and the Company.

"Fair Market Value" has the meaning specified in Section 9.19.

"Financing Agreement" means the Installment Sales Agreement dated as of December 1, 1988 between the Authority and



Delaware Resource Management, Inc., a Delaware corporation, as the same may be amended or supplemented from time to time in accordance with its terms.

"First Notice" has the meaning specified in Section 6.08(a) of this Agreement.

"Full Acceptance Standard" means compliance of the Facility with the requirements specified in Schedules 5 and 11 for full Acceptance.

"Guaranteed Tonnage" means the number of Tons of County Waste to be delivered to the Facility pursuant to the delivery schedule in Schedule 6 in each Billing Year of twelve (12) consecutive months, which number shall be 415,000 Tons; provided, however, that for a Billing Year of less than twelve (12) calendar months, the Guaranteed Tonnage shall be reduced proportionately for such lesser period of time.

"Guaranty" means the Guaranty of the Company in favor of the County as set forth in Schedule 13.

"Hazardous Waste" means any material, substance or waste, regardless of quantity, which as of the Contract Date and by reason of its composition or characteristic is (a) toxic or hazardous waste as defined in or identified in either the Solid Waste Disposal Act, 42 U.S.C. § 6901 et seq., as replaced or amended, and the regulations thereunder, or in the Pennsylvania Solid Waste Management Act, 35 P.S. §6018.101, et. seq., as replaced or amended, and the regulations thereunder, or (b)

special nuclear or by-products material within the meaning of the Atomic Energy Act of 1954, 42 U.S.C. § 2201 et. seq. as replaced or amended. If any governmental agency or unit having appropriate jurisdiction shall determine that substances which are not, as of the Contract Date, considered harmful, toxic or dangerous, are harmful, toxic or dangerous, then such substances shall be Hazardous waste for the purposes of this Agreement as of the effective date of such determination.

"HHV" means Higher Heating Value, determined according to Schedule 5, expressed as BTUs per pound of Acceptable Waste.

"Host Community Fee" means the amount payable to the City of Chester, Pennsylvania, as an adjustment to the Facility Price pursuant to Section 2.04(d) or as a Pass Through Cost pursuant to Schedule 17.

"Indenture" means the trust indenture dated \_\_\_\_\_, as it has been amended, and any supplements or amendments thereto, or any trust indenture entered into with regard to any refunding of the Bonds approved by the County.

"Independent Engineer" means a nationally recognized independent consulting engineering firm having knowledge with respect to the design, construction, acceptance, operation and maintenance of Solid Waste disposal and Mass Burn Resource Recovery facilities selected in accordance with Section 9.03(d).

"KWH" means kilowatt hour.

"Landfill" means any landfill designated by the County from time to time which is permitted to operate under all applicable laws of the State or any contiguous state.

"Legal Holidays" means legal holidays as set forth in Schedule 25 and as may be mutually agreed to from time to time, which modification shall not be an amendment of this Agreement.

"Mass Burn" refers to a technology or type of Solid Waste combustion system whereby Acceptable Waste is fired in a furnace permitting substantially complete burn-out of the combustible fraction of Acceptable Waste.

"Minimal Acceptance Standard" means 1500 Tons per Day.

"Minimal Repair Standard" has the meaning specified in Section 6.08(b)(i).

"Nameplate Capacity" means the design capacity of (at least 1500) 2688 Tons per Day of Acceptable Waste containing an HHV of 5,200 BTU per pound, as specified in Schedule 5.

"Pass Through Costs" shall include those items set forth in Schedule 17, and applied in accordance with Section 6.02; provided, however, that there shall be no Pass Through Costs with respect to any period of nonperformance (other than nonperformance for reasons permitted by Section 7701(e)(4) of the Internal Revenue Code) by the Company under this Agreement.

"Person" means any individual, corporation, partnership, joint venture, association, joint-stock company, trust, unincorporated organization, or government or any agency or

political subdivision thereof, or any agency or entity created or existing under the Compact Clause of the United States Constitution.

"Pit" means the receiving and storage area constructed at the Facility and which may be a tipping floor or a pit from which Acceptable Waste is extracted for Processing.

"Process," "Processible," "Processed" or "Processing" means incineration to dispose of Acceptable Waste and obtain Recovered Resources at the Facility.

"Process Residue" means (a) the material which remains after Acceptable Waste is Processed and (b) Recovered Resources, other than steam and electricity, that are not sold.

"Product Sales Agreements" means the Electrical Sales Contract, and any agreements entered into by the Company from time to time providing for the sale of steam or other Recovered Resources.

"Pro-Rata Equity Capital" when used in reference to any cost or capital expenditure means Equity Capital in an amount which bears the same relationship to such cost or capital expenditure, adjusted pursuant to Section 3.06, as the Equity Capital initially provided by the Company in accordance with this Agreement bears to the Facility Price, or such other amount as may be agreed upon by the County and the Company.

"Receiving Time" means the period of operation for the Facility consisting of fourteen (14) hours from 6:00 a.m. until 8:00 p.m. on each Business Day.

"Recovered Resources" means energy recoverable from Solid Waste at the Facility, and other materials that are economically recoverable from Solid Waste or Process Residue at the Facility such as magnetic ferrous metal, nonferrous metals and ash if so desired by the Company.

"Residue" means (1) Process Residue, and (2) bulky Acceptable waste that is accepted at the Facility but not Processed.

"Resource Recovery" means the separation, extraction and recovery of usable materials and energy from Solid Waste through incineration and heat recovery, mechanical separation or other means.

"Schedule" means an exhibit, schedule or annex which is incorporated in, and made a part of, this Agreement.

"Scheduled Acceptance Date" means 12:01 a.m. on the Day 870 Days from the Construction Date, as extended pursuant to Section 2.09.

"Second Notice" has the meaning specified in Section 6.08(b)(i).

"Section" means a section of this Agreement.

"Service Fee" has the meaning specified in Article VI.

"Service Fee Increase Limitation" means the limit on the increase in Service Fee due to Unforeseen Circumstances following the Contract Date and applied pursuant to the procedures in Section 6.08. The maximum cumulative increase in the Service Fee due to such Unforeseen Circumstances is \$15 per Ton of County Waste, escalated from the Contract Date pursuant to the Escalation Factor.

"Solid Waste" means all materials, substances or waste that, as of the Contract Date or any subsequent date, were generally discarded or rejected as being spent, useless, worthless or in excess to the owners at the time of such discard or rejection, including garbage, refuse, industrial and commercial waste, sludges from air or water pollution control facilities or water supply treatment facilities, rubbish, ashes, contained gaseous materials, incinerator residue, demolition and construction debris and offal; excluding sewage and other highly diluted water-carried materials or substances, materials and substances in gaseous form and Hazardous Waste.

"State" means the Commonwealth of Pennsylvania and all of its appropriate administrative, contracting and regulatory agencies and offices.

"Substituted Acceptance Standard" means an acceptance standard less than the Full Acceptance Standard, as specified by the Company and accepted by the County pursuant to Section 4.04 hereof.

"Third Notice" has the meaning specified in Section 6.08(e)(iii).

"Ton" means a "short ton" of 2,000 pounds.

"Total Processed Acceptable Waste" means the total amount in Tons of Acceptable Waste Processed by the Facility during a Billing Period.

"Trustee" means the trustee named under the Indenture, including any successor trustee.

"Unacceptable Waste" means that portion of Solid Waste, exclusive of Hazardous Waste, such as, but not limited to, explosives, pathological and biological waste, radioactive materials, ashes, foundry sand, sludges, cesspool and other human waste, human and animal remains, offal from slaughterhouses and wholesale food processing establishments, motor vehicles, including such major motor vehicles parts as automobile transmissions and blocks, batteries, engines, rear ends, springs, and fenders, trailers, wire and cable, agricultural and farm machinery and equipment, marine vessels and major parts thereof, any other large type of machinery or equipment, substantial quantities of liquid wastes (excluding moisture in Solid Waste resulting from precipitation) or nonburnable construction materials and/or demolition debris, rock, gravel and other earthen materials.

"Unforeseen Circumstance" means any act, event or condition, that has had, or may reasonably be expected to have, a



direct material adverse effect on the rights or the obligations of the parties under this Agreement, or a direct material adverse effect on the Facility, or the construction or operation of the Facility, if such act, event or condition is beyond the reasonable control of the party relying thereon as justification for not performing an obligation or complying with any condition required of such party under this Agreement. Such acts, events or conditions may include the following:

(a) an act of God, landslide, lightning, earthquake, fire, explosion, flood, nuclear radiation not created by the Company, acts of a public enemy, war, blockade, insurrection, riot or civil disturbance, sabotage or similar occurrence or any exercise of the power of eminent domain, police power, condemnation or other taking by or on behalf of any public, quasi-public or private entity; but not including reasonably anticipated weather conditions for the geographic area of the Facility;

(b) the order, injunction and/or judgment of any federal, State or local court, administrative agency or governmental body applicable to the parties under this Agreement, excepting decisions interpreting federal, State and local tax laws, provided that such order or judgment shall not have been the result of the willful or negligent action or inaction of the party relying thereon and that neither the contesting in good faith of any such order or judgment nor the failure to so contest

shall constitute or be construed as a willful or negligent action or inaction of such party;

(c) a Change in Law;

(d) the loss of or inability to obtain, for reasons other than Company Fault, utility services, including natural gas, water, sewerage, and standby electric power (other than that generated by the Facility) purchased from third parties, necessary for (i) construction, start up, Acceptance Testing or operation of the Facility or (ii) operation of the Landfill, directly resulting in a partial or total curtailment of operations at the Facility;

(e) prior to Acceptance Date, any surface or subsurface condition (including the presence of Hazardous Waste) at the Facility Site not created by the Company which requires a redesign or change in the construction of the Facility; provided, that (i) the condition was unknown to the Company on the Contract Date and (ii) it reasonably could not have been discovered by the Company from information supplied to the Company by the County prior to the Contract Date;

(f) the unavailability due to an Unforeseen Circumstance described in (a) to (e) of Landfill capacity sufficient for disposal of Residue and Bypassed Waste; and

(g) the suspension, termination, interruption, denial or failure of renewal or issuance of any permit, license, consent, authorization or approval essential to the construction,

start up, Acceptance Testing or operation of the Facility, including any license, consent or authorization for technology required for the Facility.

The following acts, events or conditions shall not be an Unforeseen Circumstance for purposes of this Agreement:

(a) any change by the purchaser of electrical power pursuant to an Electrical Sales Contract of the location of the point of interconnection with the Facility electric distribution system or in the equipment necessary for the Company to make such interconnection; and

(b) a labor strike, stoppage, secondary boycott or walkout.

"Utility" means a utility to be determined.

"Work" means the design, construction, start up and Acceptance Testing of the Facility by the Company in accordance with this Agreement.

"Work Site" means the Facility Site and any other site made available to the Company by the County in connection with the construction of the Facility.

1.02 Terms Generally. Whenever the context may require, any pronoun shall include the corresponding masculine, feminine and neuter forms. The words "include," "includes" and "including" shall be deemed to be followed by the phrase "without limitation." The words "agree," "agreements," "approval" and "consent" shall be deemed to be followed by the phrase "which

shall not be unreasonably withheld or unduly delayed," except as the context may otherwise require.

## ARTICLE II - CONSTRUCTION OF FACILITY

2.01 Construction and Progress Monitoring. The Company shall design, construct, start up and Acceptance Test the Facility in accordance with Section 2.02. Contracts and subcontracts entered into by the Company for the construction of the Facility shall neither supersede nor abrogate any of the terms or provisions of this Agreement. The Consulting Engineer and the County shall have reasonable access to the Work Site and the Company shall review the design and construction of the Facility with the Consulting Engineer and the County, and the Company shall submit the schedule for engineering design and construction to the Consulting Engineer and the County within thirty (30) Days after the Construction Date and will provide the opportunity for appropriate design reviews by the Consulting Engineer; provided, however, that such review shall in no way alter the obligations of the Company under this Agreement. The Consulting Engineer and the County shall cause their respective representatives while on the Work Site to comply with all reasonable safety and security rules adopted by the Company and shall not interfere with the Work of any contractor, subcontractor, supplier or the Company at the Work Site. Any information or materials furnished to the County or the

Consulting Engineer in connection with the design, construction, start up and Acceptance Testing of the Facility shall be treated as confidential and maintained in strict confidence and not used except to monitor the progress of construction of the Facility, and all reasonable precautions shall be taken to prevent disclosure to third parties (other than the State), to the extent permitted by law, except to the extent such information is already in the public domain through no fault of the County or to the extent that the Company shall agree to such disclosure. The County shall obtain from the Consulting Engineer an agreement conferring enforceable rights upon the Company that the Consulting Engineer will satisfy the County's obligations not to disclose confidential information set forth in this Section 2.01. The Company acknowledges that the Consulting Engineer has been retained by the County to review and monitor construction progress and payments for the County, to review and advise the County with respect to proposed material changes to the specifications set forth in Schedule 10, to review for the County the validity of any written notice from the Company that an Unforeseen Circumstance has occurred, to review and advise the County with respect to material changes to the Facility during the term of this Agreement, to review and approve on behalf of the County the Acceptance Test plan described in Section 2.13, to review the results of the Acceptance Test(s) made in accordance with such plan and advise the County that the Acceptance Test

standards set forth in Schedules 5 and 11 have been satisfied or of the extent to which they have not been satisfied and to review the Company's certifications to the Trustee in accordance with the Indenture. The Company agrees to cooperate with all reasonable requests made by the Consulting Engineer in connection with the performance of such duties on behalf of the County. The Company acknowledges that any action taken by the Consulting Engineer under this Section 2.01 in no way alters the Company's warranties, obligations, and representations set forth in this Agreement.

2.02 Agreement to Construct. The Company agrees on and after the Construction Date to cause the Facility to be designed, started up, constructed and Acceptance Tested in accordance with the requirements of this Article II and as set forth in Schedules 5 and 10. Inclusive in such design and construction, the Company shall incorporate a one thousand (1000) Ton per Day waste transfer capability into the Facility such that County Waste may be extracted from the Pit and loaded onto transfer trucks for disposal at the Landfill or other disposal location:

2.03 Facility Price. The Facility Price shall be the fixed price of \$320,000,000 together with the amount of any changes in such fixed price as a result of (a) the occurrence of Unforeseen Circumstances occurring on or after the Contract Date as provided in Section 2.04(a), (b) County Work change requests pursuant to Section 2.04(b) which are agreed to by the Company,

(c) County delays described in Section 2.04(c), (d) Host Community Fee payments pursuant to Section 2.04(d), (e) the cost of obtaining and maintaining certain insurance during construction pursuant to Section 2.04(e) and (f) County project development expenses pursuant to Section 2.04(f). The Facility Price will be paid from the proceeds from the Bonds and the Equity Capital contribution in accordance with the drawdown schedule in Schedule 12.

If the Construction Date has not occurred on or before December 31, 1988 then this Agreement may be terminated as provided in Section 3.04.

2.04 Adjustments to Facility Price. The Facility Price shall be adjusted only as provided in this Section 2.04.

(a) Facility Price Adjustments for Unforeseen Circumstances. If, on or after the Contract Date, an Unforeseen Circumstance pursuant to Section 2.06 shall necessitate a work change, and/or a delay or an increase in the cost of the Facility, the Facility Price and, accordingly, the Service Fee shall be adjusted pursuant to Section 6.02 to reflect such increase or decrease in cost, which adjustment shall be included in, and subject to, the Service Fee Increase Limitation and the Company and the County will proceed in accordance with Sections 6.08 and 6.09.

(b) Facility Price Adjustments for County Work Change Requests. If the County requests a Work change pursuant

to Section 2.05 with which the Company concurs, and the County accepts the Company's proposal with respect to an adjustment to the Facility Price regarding such Work change, the Facility Price and, accordingly, the Service Fee shall be adjusted pursuant to Section 6.02 and as provided in Section 2.05, and the Company and the County will proceed pursuant to Section 6.09.

(c) Facility Price Adjustments for County's Delay. The Facility Price and, accordingly, the Service Fee shall be adjusted pursuant to Section 6.02 to reflect the costs resulting from delay due to County Fault, and the Company and the County will proceed pursuant to Section 6.09.

(d) Facility Price Adjustments for Host Community Fee Payments. The Facility Price shall be adjusted to reflect the Host Community Fee payments required to be paid by the Company prior to the earlier of the Scheduled Acceptance Date or the Acceptance Date.

(e) Facility Price Adjustments for Certain Insurance During Construction. The Facility Price and, accordingly, the Service Fee, shall be adjusted pursuant to Section 6.02 to reflect the Company's cost of obtaining and maintaining, pursuant to the procedures set forth in Section 7.03 and prior to the earlier of the Scheduled Acceptance Date or the Acceptance Date, the insurance set forth in Schedule 7 (other than Workers' Compensation, Employers' Liability Insurance,



Comprehensive General Liability Insurance and Comprehensive Automobile Liability Insurance).

(f) County Project Development Expenses. The Facility Price and, accordingly, the Service Fee shall be adjusted pursuant to Section 6.02 to reflect the County's project development costs, including the fees and expenses of the County's consultants, the County's administrative costs and expenses, the costs of acquiring by purchase lands, property rights, rights-of-way, franchises, easements or other interests in land with respect to the Facility Site, the costs associated with the construction and maintenance of the access road to the Facility Site boundary, the premium and costs incident to the issuance of title guaranty insurance, the costs and fees of the Consulting Engineer and Independent Engineer, all for services rendered prior to and during the construction period of the Facility.

(g) Escalation. Additions to the Facility Price pursuant to this Section 2.04 shall not be subject to escalation.

2.05 County's Work Change Requests. The County may request changes in the Work consisting of additions, deletions or other revisions which may necessitate adjustments to the Facility Price. Prior to the Company undertaking any activity in connection with any such requested Work change, the County and the Company shall confer within ten (10) Days of such request on the amount of the increase or decrease in the Facility Price, on

the Service Fee, on the drawdown schedule in Schedule 12, on the principal amount of additional Bonds to be issued, if any, and on the impact on the Scheduled Acceptance Date and Schedules 5, 6 and 10. Subject to agreement on any such increase or decrease and on the impact on the Scheduled Acceptance Date and the referenced Schedules, the Company shall use reasonable efforts to perform any such County Work change request; provided, however, that the Company hereby reserves the right to reject without obligation or liability any County Work change request that, if implemented, (i) would materially adversely affect the Facility's ability to meet the performance guarantees set forth in Schedules 5 and 10, unless the Company and County agree to appropriately modify such standards, or (ii) would materially adversely affect the Facility's project economics. The Company shall have the burden of proof establishing that the Company has the right to reject any County Work change request under paragraph 2.05(ii) above.

If the Company receives a request from the County for a Work change, the Company shall send to the County within ten (10) Days of such request an estimate of the cost to prepare such Work change. If the County shall give its written approval to the estimate of the cost for the preparation of such work change within thirty (30) Days after the Company has provided such estimate, the Company shall furnish a proposal within thirty (30) Days after the receipt of such approval, describing in reasonable

detail: (a) the necessary revisions to the plans, drawings and specifications for the Facility; (b) the principal amount of additional Bonds to be issued, if any; and (c) the total effect of the Work change, including, if any, the resulting impact on the drawdown schedule set forth in Schedule 12, the Facility Price, the Service Fee, the Scheduled Acceptance Date, and the requirements of Schedules 5, 6 and 10. The County shall notify the Company within thirty (30) Days of the receipt of the proposal if the County wishes to proceed with such Work. If the County provides such notice, the Company shall proceed to execute such Work change, and the Scheduled Acceptance Date and the items and Schedules referred to above shall be adjusted in accordance with the Company's proposal or as may be mutually agreed.

2.06 Unforeseen Circumstance Work Changes. If due to the occurrence of an Unforeseen Circumstance, a Work change, repair or reconstruction is required or construction of the Facility is impeded, the Company's obligations to design, construct, start up, Acceptance Test and operate the Facility shall abate to the extent required as a result thereof.

(a) In that event, Section 6.08 shall apply and, if the Second Notice is given, then, (i) if the Second Notice states that the Facility cannot be repaired, reconstructed or completed to meet the Minimal Acceptance Standard, then the County may terminate this Agreement pursuant to Section 8.07 without liability to the Company, or (ii) if the Second Notice

states that the Facility can be repaired, reconstructed or completed, such Second Notice shall include a description of (a) the necessary revisions to the plans, drawings and specifications; (b) the purpose of the change; (c) the principal amount of additional Bonds to be issued, if any; and (d) the total effect of the Work change, including, if any, the resulting impact on the drawdown schedule set forth in Schedule 12, the Facility Price, the Service Fee, the Scheduled Acceptance Date, the Facility's ability to Process the Guaranteed Tonnage, the Company's rejection rights pursuant to Section 4.09(b)(i) and Schedules 5, 6 and 10; provided, however, that nothing in this Section 2.06(a) or Section 6.08 shall prevent the Company from proceeding with a Work change under Section 2.08 if it so chooses at its own risk.

(b) Notwithstanding the provisions of Section 2.06(a) and Section 6.08, if, after the Construction Date and prior to the Scheduled Acceptance Date, the Company shall reasonably determine that a Work change is required due to an Unforeseen Circumstance and that failure to make such Work change promptly will materially adversely affect (i) the ability to achieve Acceptance by the Scheduled Acceptance Date, (ii) the Facility Price, (iii) the ability of the Facility to meet the requirements of Schedules 5, 6 and 10, or (iv) the Service Fee, the Company shall notify the County of the actions planned under this Section 2.06(b), and the estimated cost of such planned

action. If the total cost for each Work change, including all expenses incurred or paid with respect to action taken by the Company prior to notification of the County, does not exceed one hundred thousand dollars (\$100,000) for any one event, then the Company may proceed at its own risk with such Work change without the prior written consent of the County, and, to the extent of Cost Substantiation, the Facility Price shall be adjusted by the amount of such costs, not to exceed one hundred thousand dollars (\$100,000); provided, however, that such Work changes shall be included in the Service Fee Increase Limitation. If such estimated cost exceeds one hundred thousand dollars (\$100,000) for any one event, then the Company shall be authorized to proceed with any Work change only upon the prior written consent of the County, and if the County's direction is not given and the Company elects to proceed, then the Company shall be deemed to have elected to proceed pursuant to Section 6.08(e)(iii)(A). In either event the County shall have the right to dispute the reasonableness of the Company's determination and the reasonableness of the costs incurred by the Company pursuant to this Section 2.06(b), and any disputes relating thereto shall be resolved in accordance with Section 9.03.

2.07 Preparation of Work Change Costs. The County shall reimburse, subject to the deferral provision in Section 4.01(a), the Company for the Company's costs in preparing proposals for the Work changes under Section 2.05 or 2.06 in an

amount equal to all direct and indirect costs incurred by the Company in doing so, exclusive of profits.

2.08 Company's Work Changes. The Company, at its sole cost and expense, shall have the right to make changes to the specifications set forth in Schedule 10, and any changes to the Work resulting therefrom to the extent that such proposed changes do not impair the quality of the Facility described in Schedule 10 or the ability of the Company to meet the performance guarantees set forth in Schedules 5 and 10.

Should the County neither approve nor disapprove such changes within thirty (30) Days of the date of receipt of the Company's notice as provided for herein, such proposed changes shall be deemed to be approved. Should the Company proceed with such changes without the County's approval or should the County disapprove a proposed change, either the Company or the County may proceed immediately in accordance with Section 9.03 to secure a determination of whether approval should be granted. In no event shall the Company's Work changes increase the Facility Price without the prior written approval of the County.

2.09 Scheduled Acceptance Date Extension. The Scheduled Acceptance Date shall only be extended due to a County Work change pursuant to Section 2.04(b), a Work change or delay caused by the occurrence of an Unforeseen Circumstance, or a Work change or delay due to County Fault. If the Scheduled Acceptance Date is extended due to a Work change or delay caused by County

Fault, the Company shall pay the Daily Debt Service on the Bonds and the County, upon the occurrence of the earlier of the Scheduled Acceptance Date, as extended, or the Acceptance Date, shall reimburse the Company for any amounts required to pay Daily Debt Service on the Bonds from the unextended Scheduled Acceptance Date until the earlier of the Scheduled Acceptance Date, as extended, or the Acceptance Date. If the Scheduled Acceptance Date is extended due to a Work change or delay caused by the occurrence of an Unforeseen Circumstance, the Company shall pay the Daily Debt Service on the Allocable Bonds, and the County, upon the occurrence of the Acceptance Date, shall reimburse the Company for any amounts required to pay Daily Debt Service on the Allocable Bonds from the unextended Scheduled Acceptance Date until the Acceptance Date. Such reimbursements shall be made in equal monthly installments, inclusive of interest pursuant to Section 9.21, over a period of twenty-four (24) Billing Periods beginning with (i) the earlier of the Scheduled Acceptance Date, as extended, or the Acceptance Date in the case Work changes or delays caused by County Fault or (ii) the Acceptance Date in the case of Work changes or delays caused by Unforeseen Circumstances, and the amount owed for each such Billing Period shall be included in Part I of the statement tendered by the Company to the County pursuant to Section 6.05.

2.10 Cost Substantiation for Work Changes. The Company shall provide the County with Cost Substantiation for all

adjustments to the Facility Price under Section 2.04, all Work changes or delays pursuant to Sections 2.05 and 2.06, and the preparation of Work changes pursuant to Section 2.07 other than Company Work changes or delays.

2.11 Access to Facility Site. The County shall, at its cost and expense, provide necessary and appropriate rights of way and easements over which the County has jurisdiction and authority to the location at the perimeter of the Facility Site designated by the Company. To the extent the County does not have jurisdiction or authority with respect to obtaining any necessary and appropriate rights-of-way or easements, the County shall use all reasonable efforts to assist the Company in the Company's efforts to obtain any such rights-of-way or easements. The Company shall be obligated, at its cost and expense, to secure access and egress roadways and utility interconnections, including all capital and maintenance costs associated therewith, over such rights-of-way or easements. Subject to the Consulting Engineer's rights and the County's inspection and testing rights under this Agreement, the Company shall have absolute control and authority over the Work Site from the Construction Date until the earlier of the date of termination or the expiration of the term of this Agreement.

2.12 Commencement of Work. Promptly after the Construction Date, the Company shall commence or cause to be



commenced the construction of the Facility in accordance with all of terms, Sections and Schedules of this Agreement.

2.13 Acceptance of Facility. The Company shall be responsible for the preparation of the Facility for, and the execution of, performance and Acceptance Testing and shall furnish all labor, supervision, materials, services and equipment necessary to execute such tests, at no cost or expense to the County, except that the County shall be responsible for the costs and expenses of its officials and the Consulting Engineer, which costs and expense shall be an adjustment to the Facility Price pursuant to Section 2.04(f).

(a) Testing Plan. Within eighteen (18) months after the Construction Date, the Company shall prepare and submit to the Consulting Engineer and the County for approval a detailed Acceptance Test and performance test plan. The plan shall define a test program for each objective described in Schedule 5 and shall set forth in detail the procedures to be used, the specific measurements to be made, the proposed usage of permanent and temporary instrumentation, the organization of the test team, the testing schedule and the Facility operating and maintenance schedule during testing. The plan shall also make provision for measuring and determining the Processing, steam and electrical energy production and recovery of other Recovered Resources capacities of the Facility and determination of the compliance of the Facility with the terms of applicable permits, licenses, laws

and regulations. Such plan shall in all respects conform to the requirements of Schedule 5. If the Company, the Consulting Engineer and the County are unable to agree upon a plan within sixty (60) Days of such submission, such inability to agree shall be an engineering dispute subject to resolution as provided in Section 9.03.

(b) Notice of Acceptance Test. The Company shall notify the County and the Consulting Engineer thirty (30) days prior to the date on which it will commence the Acceptance Testing pursuant to the testing plan approved in accordance with Section 2.13(a). The Company shall also comply with the County Waste delivery notification requirements of Sections 2.13(d) and 4.01(b).

(c) Acceptance Test. The County and the Consulting Engineer shall have the right to inspect the preparations for Acceptance Testing of the Facility and to witness all testing pursuant to the testing plan for purposes of ensuring compliance with the approved testing plan and the integrity of the Acceptance Test results. The Company shall cooperate fully with the Consulting Engineer and the County in this regard. The Company shall execute the Acceptance Tests in strict accordance with the approved testing plan.

(d) Acceptance Test Report. The Company shall, upon Completion of all Acceptance Testing, including the receipt of any laboratory analysis, furnish the County and the Consulting

Engineer with a certified written report describing (i) the Acceptance Tests conducted, (ii) the certified results of the Acceptance Tests and (iii) the Company's estimate of the date of initiation of the next Acceptance Tests, if necessary, and the desired amount and delivery schedule of County Waste to be delivered to the Facility pursuant to Section 4.01(b). Together with such certified written report, the Company shall furnish the Consulting Engineer with all test data and laboratory analysis reports pertaining to such test.

(e) Acceptance Test Certification. If the Company certifies (whether in its written report of the results of any Acceptance Test or separately) that all performance guarantees set forth in Schedules 5 and 10 were satisfied, then the County and the Consulting Engineer shall determine whether they agree. Within thirty (30) Days of the County's receipt of the Company's certification as to Acceptance Tests results, including the Consulting Engineer's receipt of all test data and laboratory analysis reports pertaining to such tests, the County shall determine (i) whether the Company correctly certified such results, or (ii) whether the Company incorrectly certified such results. If the County shall reject the Company's certification of the results of the Acceptance Tests, the County shall describe in reasonable detail the basis of the County's rejection and shall attach a certificate of the Consulting Engineer attesting to the basis for such rejection. If the Company does not concur

in any such rejection, the matter shall be considered an engineering dispute and be resolved in accordance with Section 9.03. If the County accepts the Company's certification of the Acceptance Tests or fails to respond to the Company's certification of Acceptance Tests within said thirty (30) Day period, the County shall be deemed to have approved and accepted the results of the Acceptance Tests.

(f) Commencement of Billing Period and Year. If the Company's certification of Acceptance Tests results evidence that the Facility operates at a standard equal to or greater than the lesser of (i) Minimal Acceptance Standard or (ii) the Substituted Acceptance Standard elected by the County pursuant to Section 4.04, then, for purposes of Article VI, the first Billing Period and Billing Year shall commence on such certification date, notwithstanding that the County shall not have approved and accepted such Company certification. If the County subsequently accepts and approves or is deemed to have accepted and approved such certification, in either case pursuant to Section 2.13(e), as demonstrating that the Facility operates at the lesser of clauses (i) or (ii) above, then the Facility shall be deemed to have achieved Acceptance, the Acceptance Date shall be established as of the date of the Company's certification and, if applicable, Section 4.04(d) shall apply. If the County subsequently rejects the Company's certification and if the Company and the County agree, or if the arbitrator determines

pursuant to Section 9.03, that the Company's certification pursuant to Section 2.13(e) was not correct, then the Company shall be obligated to pay the County within thirty (30) Days of such rejection or the arbitrator's determination, whichever is applicable, a sum equal to the total amount of Service Fees paid to the Company by the County on and after the date of the Company's certification pursuant to Section 2.13(e) until the earlier of the Scheduled Acceptance Date or the Acceptance Date, plus interest on said amounts from the date of each payment to the Company by the County, such interest to be computed in accordance with Section 9.21.

(g) Delivery of County Waste. For purposes of the Acceptance Testing period, the County shall comply with its obligations to deliver County Waste to the Facility in an amount not to exceed that applicable monthly tonnage amount specified in Schedule 6. If delivery of additional Acceptable Waste is requested by the Company and such additional amount is necessary for the performance of Acceptance Tests, the County shall exercise all reasonable efforts to obtain and to cause to be delivered to the Facility such additional amount of Acceptable Waste. To the extent the County is unsuccessful in obtaining such amount of additional Acceptable Waste, the Company shall exercise all reasonable efforts to obtain and to cause to be delivered to the Facility Acceptable Waste in an amount not to exceed that amount requested by the Company and necessary for

Acceptance Testing. In the event Acceptable Waste in an amount necessary to conduct Acceptance Tests cannot be obtained and delivered to the Facility pursuant to this Section 2.13(g), Acceptance of the Facility for purposes of the guaranteed Facility capacity test shall be determined pursuant to Schedule 5.

2.14 Facility Site. The Company is responsible for determining the acceptability of the Facility Site for purposes of the design and construction of the Facility based upon its own examination of the Facility Site and the Facility Site data provided by the County. The Company shall have the right to offer an alternative site to the County, and the County shall have the right, in its sole discretion, to accept or reject such alternative site.

### ARTICLE III - CONDITIONS PRECEDENT AND FINANCING

3.01 Conditions Precedent. All rights, obligations and liabilities of the County and the Company shall be subject to the satisfaction of each of the following conditions precedent set forth below in Section 3.02, in the case of the County, and 3.03 and 3.07, in the case of the Company, on or prior to the Construction Date; provided, however, the Company may in its sole discretion commence the design and construction of the Facility before the Construction Date, but shall not be entitled to payment for such Work if the Construction Date does not occur.

3.02 Conditions to County Obligations.

(a) The Company shall have made a commitment acceptable to the County to contribute Equity Capital;

(b) The Company shall have provided the County with a covenant of assurance in the form set forth in Schedule 22;

(c) The Company shall have delivered to the County a certificate of an authorized officer of the Company, dated the Construction Date, to the effect that each of the representations and warranties of the Company set forth in Section 9.08(b) are true and correct as if made on such date and an opinion of counsel to the Company, in customary form, to the effect set forth in Section 9.08(b);

(d) All applicable permits, licenses and authorizations necessary for the construction, start up, Acceptance Testing and operation of the Facility and required to be obtained on or before the Construction Date shall have been obtained by or on behalf of the Company;

(e) The Company shall have entered into the Financing Agreement providing for payments by the Company in an amount sufficient to pay principal of and premium, if any, and interest on the Bonds issued to finance the Facility;

(f) The proceeds of the Bonds shall have been made available to the Company as provided in the Indenture to be applied to the payment of the Facility Price;

(g) The Company shall have submitted to the County all certificates of insurance as required by this Agreement and Schedule 7;

(h) No action, suit, proceeding or official investigation shall have been overtly threatened, publicly announced or commenced by any federal, State or local governmental authority or agency, or in any federal, State or local court, that seeks to enjoin, assess civil or criminal penalties against, assess civil damages against, or obtain any judgment, order or consent decree with respect to, the Company or any of the agreements referred to in this Section 3.02 as a result of the Company's negotiation, execution, delivery or performance of any such agreement or its participation or intended participation in any transaction contemplated thereby, except that this paragraph (h) shall not apply to any action, suit, proceeding or official investigation not involving criminal penalties which does not challenge the validity, binding effect or enforceability of the Bonds or any of the agreements referred to in this Section 3.02, and which, if adversely determined, would not materially adversely affect any of such agreements or the Bonds, the performance by the Company of its obligations thereunder, or transactions contemplated thereby;

(i) No change shall have occurred after the Contract Date and on or before the Construction Date in any applicable federal, State or local law or statute, or any



regulation thereunder or interpretation thereof by any applicable regulatory authority that would make the execution or delivery by the Company of this Agreement or any of the above agreements to which the Company is a party, the compliance by the Company with the terms and conditions thereof or the consummation by the Company of the transactions contemplated thereby, a violation of such law, statute or regulation;

(j) The Company and the County shall have mutually agreed on appropriate changes to this Agreement so as to conform this Agreement to the Indenture so long as such changes do not adversely affect the County's rights under this Agreement;

(k) The Company shall have examined the Facility Site and the site data described in Section 2.14 to determine the acceptability of the Facility Site for construction purposes and shall have concluded that it is acceptable or the Company shall have offered an alternative site pursuant to Section 2.14 which is acceptable to the County;

(l) The Company shall have received the Qualifying Facility Certificate from the Federal Energy Regulatory Commission;

(m) All of the documents agreements rights or authorizations listed in Section 3.02 (a) through (l) of this Agreement shall be in full force and effect on the Construction Date.

3.03 Conditions to Company Obligations.

(a) The net proceeds of the Bonds shall have been deposited with the Trustee for payment of the Facility Price;

(b) The Company shall have entered into the Financing Agreement providing for payments by the Company to the Authority in an amount sufficient, to pay principal of and premium, if any, and interest on the Bonds issued to finance the Facility;

(c) The County shall have delivered to the Company a certificate of an authorized officer of the County, dated the Construction Date, to the effect that each of the representations of the County set forth in Section 9.08(a) hereof are true and correct as if made on such date and an opinion of counsel to the County, in customary form, to the effect set forth in clauses (i) through (iv) of Section 9.08(a);

(d) All applicable permits, licenses and authorizations necessary for the construction, start up, Acceptance Testing and operation of the Facility and required to be obtained on or before the Construction Date shall have been obtained by or on behalf of the Company;

(e) The Company shall have received: (i) a policy of leasehold insurance issued by a reputable title insurance company of recognized standing, in a form and an amount reasonably satisfactory to the Company and the County, insuring the Company's interest in the Facility Site and (ii) such

opinions of counsel as the Company may reasonably request relating to such title, in form and substance reasonably satisfactory to the requesting party;

(f) All easements, grants or similar rights to the Work Site shall have been given by any appropriate third person as may be necessary to perform the Work;

(g) No action, suit, proceeding or official investigation shall have been overtly threatened, publicly announced or commenced by any federal, State or local governmental authority or agency, or in any federal, State or local court, that seeks to enjoin, assess civil or criminal penalties against, assess civil damages against, or obtain any judgment, order or consent decree with respect to, any of the above agreements as a result of the Company's or the County's negotiation, execution, delivery or performance of any such agreement or its participation or intended participation in any transaction contemplated thereby except that this paragraph (g) shall not apply to any action, suit, proceeding or official investigation not involving criminal penalties which does not challenge the validity, binding effect or enforceability of the Bonds or any of the agreements referred to in this Section 3.03, and which, if adversely determined, would not materially affect any of such agreements or the Bonds, the performance by the County or the Company of its respective obligations thereunder, or transactions contemplated thereby;

(h) No change shall have occurred after the Contract Date and on or before the Construction Date in any applicable federal, State or local law, or any applicable federal, State or local statute, regulation thereunder or interpretation thereof by any applicable regulatory authority, that would make the execution or delivery by the County or the Company of this Agreement or any of the above agreements to which the County or the Company is a party, the compliance by the County or the Company with the terms and conditions thereof or the consummation by the County or the Company of the transactions contemplated thereby, a violation of such law, statute or regulations;

(i) The County shall have made available the Landfill;

(j) The Company and the County shall have mutually agreed on appropriate changes to this Agreement so as to conform this Agreement to the Indenture so long as such changes do not adversely affect the Company's rights under this Agreement;

(k) The County shall have provided to (or shall have caused to be provided to) the Company the necessary and appropriate rights-of-way and easements over which the County has jurisdiction and authority to the perimeter of the Facility Site to the extent required by Section 2.11;

(l) The County shall have provided the Facility Site and shall have made available to the Company site condition data as described in Section 2.14. The Company shall have examined the Facility Site and said site data to determine the acceptability of the Facility Site for construction purposes or the Company shall have offered an alternative site pursuant to Section 2.14 which is acceptable to the County;

(m) The County or an agency of the County shall have provided the Company with agreements or documentation reasonably satisfactory to the Company that all of the County's obligations under this Agreement can be met;

(n) The Company shall have received the Qualifying Facility Certificate from the Federal Energy Regulatory Commission;

(o) The Bonds shall have received an investment grade rating from Moody's Investors Service or Standard & Poor's Corporation, which the Company shall use its best efforts to obtain; or, at the option of the County, this Agreement shall have been modified to obligate the County under the circumstances referred to in Section 2.06(a)(i) to pay to the Trustee an amount equal to its allocable portion of the Bonds less its allocable portion of unexpended proceeds of the Bonds (including interest earnings) and salvage value of the Facility, together with an opinion of nationally recognized bond counsel that such obligation is enforceable against the County;

(p) All of the documents, agreements, rights or authorizations listed in Section 3.03(a) through (o) of this Agreement shall be in full force and effect on the Construction Date.

3.04 Satisfaction of Conditions Precedent. The parties shall exercise good faith and due diligence in satisfying the conditions precedent and each party shall give prompt notice to the other party when the foregoing conditions precedent to its obligation have been respectively satisfied or waived in writing by the party whose obligations is conditioned thereon. If any such conditions are not so satisfied or waived on or before December 31, 1988, then either party may, by notice in writing to the other party, terminate this Agreement. Except as specifically provided in Section 3.07, neither party shall be liable to the other for the termination of this Agreement pursuant to this Section 3.04 and each of the parties shall bear its respective expenses attributable to the transactions herein contemplated.

The Company and the County shall provide executed acknowledgment to the other and each to the Trustee that the respective conditions precedent to its obligations under this Agreement have been met within five (5) Days of the date on which the last such condition was met or waived. Neither party shall be relieved of its obligations hereunder by the failure to

satisfy any condition precedent to the extent that the satisfaction of such condition is within such party's control.

3.05 Issuance of Bonds. The Company agrees that it will cooperate with the County in causing to be issued, or that it will cause to be issued, or that it has caused to be issued, (a) Bonds in an aggregate principal amount at least equal to the Facility Price, plus such additional amount as may be required to fund any reserves required to be funded out of the Bond proceeds with respect to the Bonds, less (i) allowable investment earnings on the Bond proceeds during construction and (ii) the Equity Capital; and (b) from time to time indebtedness incurred pursuant to Section 6.09, in an aggregate principal amount at least equal to the portion of the capital cost of any Work change or alteration to the Facility, plus such additional amount as may be required to pay costs of issuance of the additional Bonds and interest during construction and to fund any reserves required to be funded out of proceeds of the indebtedness with respect to the indebtedness, less (i) estimated allowable investment earnings on the proceeds of the indebtedness during construction and (ii) the Pro Rata Equity Capital. The Company shall indemnify the County for any liability arising out of information provided by the Company in any official statement distributed in connection with the sale of such Bonds or indebtedness regarding the Company, the Company's licenses, patents and/or technology or the Facility,

provided such information and its use in the official statement is approved in writing by an officer of the Company.

Except as specifically provided in Sections 2.09, 6.08(f), 8.04(b), 8.05(b) and (c) and Schedule 17, paragraph 5 with respect to Allocable Bonds or Bonds, as the context and requirements of such Sections specify and subject to the liability limitations stated in such Sections, the County, notwithstanding any other Section of this Agreement, the Financing Agreement, the Indenture or any other financing documents or agreements with respect to the Facility, shall neither assume nor be construed to assume under such agreements and documents any responsibility and/or liability on the Bonds or any obligations arising thereunder or with respect thereto, including, without limitation and by way of example only, any obligation associated with the payment of principal of, and premium, if any, and interest on, the Bonds, including any interest rate increases or decreases, any costs or increased debt service obligations associated with any issuance or reissuance of the Bonds, any cost associated with any change in the tax-exempt status of the Bonds, including any cost of any increased debt service if the interest on the Bonds becomes taxable, any financing costs, including the cost of obligations that become due under any indemnification provision of any financing document with respect to the Facility and including further any cost recognized in the definition of Daily Debt Service in this



Agreement and any cost or liability associated with principal and interest becoming due on the Bonds, whether at maturity, by redemption, by declaration of acceleration or otherwise.

3.06 Equity Capital Undertaking. The Company agrees to provide or cause others to provide Equity Capital in accordance with Schedule 12 which shall reflect the adjustments made, if any, pursuant to Section 7.04. In the event that any cost or capital expenditure is required to be paid pursuant to Section 6.08 after the Contract Date, the Company agrees to provide or cause others to provide the Pro-Rata Equity Capital in accordance with this Section 3.06 and Section 6.09; provided, however, that if the investment tax credit and depreciation rates and lives are more than or less than those which would have been allowable as of the Contract Date, the Company shall be obligated to provide or cause others to provide Pro-Rata Equity Capital in an amount equal to (a) a fraction, the numerator of which is the present value, using a ten (10) percent discount factor, of such tax benefits available on the date of such expenditure and the denominator of which is the present value, using a ten (10) percent discount factor, of such tax benefits as would have been available on the Contract Date (b) multiplied by an amount equal to the Pro-Rata Equity Capital.

3.07 Additional Conditions Precedent (a)

Notwithstanding the foregoing provisions contained in this Article III, in the event certain additional conditions precedent

set forth in 3.07(b) below are not satisfied on or before December 31, 1988, the Company shall have the option (i) to terminate this Agreement as provided in this Article or (ii) to waive such Additional conditions precedent.

(b) The following are the additional conditions precedent:

(i) The Company shall have entered into an Electrical Sales Contract (including all agreements necessary to permit the Company to transmit electrical power generated by the Facility to the purchaser) and such Electrical Sales Contract shall have been filed with the appropriate utility regulatory agencies;

(ii) The Company shall have entered into contracts for the delivery of Acceptable Waste to the Facility for Processing in an aggregate amount equal to the difference, if any, between the Guaranteed Tonnage and the annual Nameplate Capacity of the Facility, which contracts shall contain obligations to be performed by third party waste suppliers substantially identical to those to be performed by the County under this Agreement.

(c) The County agrees to use all reasonable efforts to support the Company in its efforts to obtain the waste contracts referenced in 3.07(b)(ii), which efforts shall be limited to making appropriate contracts with third-party waste suppliers and making County administrative personnel reasonably

which the Company notifies the County of the Company's termination of this Agreement pursuant to Section 3.07(d), the Facility Site free and clear of any liens and encumbrances incurred by the Company or by Chester Solid Waste Associates (including any restrictions or easements created by the Company or Chester Solid Waste Associates that would adversely affect the County's ability to construct and operate a Resource Recovery plant on the Facility Site); provided, however, that the County shall grant an option to Chester Solid Waste Associates to lease back five (5) acres of the Facility Site described in the document attached hereto and made a part hereof as Schedule 26 for the construction and operation of a 1,600 TPD transfer station. The term of the lease shall be ninety nine (99) years and the rent shall be single lump sum payment at the time of conveyance of One Dollar (\$1).

(ii) The Company shall reimburse the County for its expenses in an amount not to exceed One Million Dollars (\$1,000,000) incurred prior to the Contract Date in the development of its procurement process and consultant fees and expenses relating to its proposed Resource Recovery project, including any fees described in Section 2.04(f). This amount shall be payable within thirty (30) Days of the date upon which the Company notifies the County of the Company's termination of this Agreement pursuant to Section 3.07(d).

available for purposes of supplying the third-party waste supplier with information regarding the County's obligations under this Agreement and for purposes of attending meetings between the Company and the third party waste suppliers as may be reasonably necessary.

(d) If the conditions set forth in Sections 3.07(b)(i) and (b)(ii) are not fulfilled on or before December 31, 1988, then, in either such event, the Company shall be entitled at its option either to waive such additional conditions precedent or to terminate this Agreement.

(e) If the Company terminates this Agreement pursuant to Section 3.07(d) as a result of the nonsatisfaction of either of the conditions set forth in Section 3.07(b), the Company shall perform the obligations and pay the amounts that are listed below, as liquidated damages and not as a penalty. The Company and the County agree that the Company's failure to satisfy the conditions set forth in Section 3.07(b) shall not be excused by the occurrence(s) of an Unforeseen Circumstance, Company fault, or by County Fault (other than the County's failure to fulfill the obligations described in Section 3.07(c)). The County shall not knowingly interfere with or impede the Company's effort to satisfy the conditions set forth in Section 3.07(b).

(i) The Company shall convey or cause to be conveyed to the County, within thirty (30) Days of the date upon

(iii) The Company shall reimburse the County a liquidated sum of One Hundred Thousand Dollars (\$100,000.00) per month for each month commencing with December of 1987 and terminating with the month of the termination of this Agreement pursuant to Section 3.07(d) for certain landfill expenses which the County will incur if the Company terminates this Agreement pursuant to Section 3.07(d). This amount shall be payable within thirty (30) days of the date upon which the Company notifies the County of said termination.

(iv) Within thirty (30) Days of the date upon which the Company notifies the County of the Company's termination of this Agreement pursuant to Section 3.07(d), the Company shall transfer or cause to be transferred to the County or its assignee under a contract executed by the County for construction of a similar Resource Recovery facility in lieu of the Facility all of its rights and all the rights of Chester Solid Waste Associates to the use of the proceeds of the \$300,000,000 Delaware County Industrial Development Authority (Pennsylvania), Variable Rate Demand Revenue Bonds, Series 1984A and Series 1984B (Resource Recovery Project); provided, however that the Company shall retain all the amount of interest income in excess of the interest payments and fees and charges associated with such bonds, including any credit enhancement fees; remarketing fees; underwriters' discounts; the costs and fees of the Trustee and its agents; depository, registration,

tender and paying agency fees and expenses; bond counsel and other legal fees and expenses; and any other costs and charges incurred in connection with the issuance and remarketing of such bonds prior to the Construction Date. The Company shall deliver to the County an opinion of nationally recognized bond counsel dated as of the Contract Date in the form attached hereto and made a part hereof as Schedule 27 that such bonds may be transferred to the County or a vendor with whom the County may enter into a service agreement similar to this Agreement.

(v) The Company shall transfer to the County or its assignee within thirty (30) Days of the date upon which the Company notifies the County of the Company's termination of this Agreement pursuant to Section 3.07(d) all engineering and permitting data, applications, reports and other documents listed on the document attached hereto and made a part hereof as Schedule 28 in the form in which such documents exist on the date this Agreement is terminated, without representations or warranties of any kind in respect thereto.

Notwithstanding the last sentence of Section 3.04 and any other provision of this Agreement, if the conditions precedent set forth in paragraph (b) of this Section 3.07 are not satisfied for any reason and the Company, in its sole discretion, chooses to terminate this Agreement pursuant to Section 3.07(d), then upon payment of the amounts and performance of the obligations set forth above in this Section 3.07(e), the Company

shall be deemed to have satisfied all of its obligations under this Agreement.

(f) The liquidated damages set forth in Section 3.07(e) above shall be the sole and exclusive remedy available to the County in the event that the Company terminates this Agreement as provided therein.

ARTICLE IV - OPERATION OF FACILITY;  
DELIVERY AND PROCESSING OF WASTE

4.01 Commitment to Deliver County Waste.

(a) The County shall cause to be delivered to the Facility, on and after the earlier of the Scheduled Acceptance Date or the Acceptance Date, County Waste in an amount at least equal to the Guaranteed Tonnage and, as applicable, the Excess Guaranteed Tonnage; provided, however, the County shall have no obligation under this Agreement to deliver County Waste in excess of the Guaranteed Tonnage and, as applicable, the Excess Guaranteed Tonnage. In the event the County is unsuccessful in delivering the Guaranteed Tonnage and, as applicable, the Excess Guaranteed Tonnage, the County nevertheless shall be responsible for payment of the Service Fee for the Guaranteed Tonnage and as applicable, the Excess Tonnage Charge for the Excess Guaranteed Tonnage; provided, however, that if a Service Fee and, as applicable, the Excess Tonnage Charge becomes due and payable prior to the Acceptance Date, such payment shall be deferred until Acceptance has been achieved. Upon Acceptance of the

Facility, the County shall pay to the Company within thirty (30) Days thereafter, the accrued Service Fee and, as applicable, the Excess Tonnage Charge, plus interest pursuant to Section 9.21.

(b) Subject to Section 2.13(g) with respect to the Acceptance Testing period, on and after the Effective Date and prior to the earlier of Scheduled Acceptance Date or the Acceptance Date, the County shall, at no cost or expense to the Company, use all reasonable efforts to deliver to the Facility, County Waste in such amounts as the Company shall have given in the prior notices, specified below, to the County that the Company will accept; provided, however, that in no event shall the County be required to deliver County Waste in excess of that applicable monthly tonnage amount specified in Schedule 6 for the month for which the Company's request was made. The Company shall provide the County with at least ninety (90) Days prior written notice of the anticipated Effective Date, which notice shall include estimated delivery schedules and County Waste quantities required. The Company shall provide the County with at least fourteen (14) Days prior written notice of the initial quantity of County Waste to be delivered by the County and the initial delivery schedule of such County Waste to the Facility. Such quantity may be reduced by the Company on at least two (2) Business Days' prior notice to the County. In the event the County is unsuccessful in delivering County Waste in the amounts requested by the Company pursuant to this Section 4.01(b), and if



the Facility is not undergoing Acceptance Tests (in which case Section 2.13(g) shall be applicable during such period), the Company may obtain Acceptable Waste from other Persons to the extent that the County does not deliver the amount of County Waste requested by the Company. For Acceptable Waste obtained from Persons other than the County, the Company will be entitled to any tipping fees charged for Processing and disposal. Any arrangement made by the Company for obtaining Acceptable Waste to the extent permitted by this paragraph shall neither conflict with the provisions of nor abrogate the rights of the County under Section 4.05.

For County Waste tendered by the County and accepted by the Company on and after the Effective Date and prior to the earlier of the Scheduled Acceptance Date or the Acceptance Date:

(i) the Company shall pay for transportation to the Landfill for all Residue;

(ii) the County shall provide Landfill capacity without charge for all Process Residue, except as provided in Section 5.03 with respect to Hazardous Waste and Unacceptable Waste;

(iii) the Company shall be entitled to all Recovered Resources revenues; and

(iv) the County shall be entitled to deliver County Waste to the Facility for Processing without charge to the County.

4.02 Commitment to Accept, Process and/or Dispose of County Waste.

(a) Subject to Sections 4.05 and 4.09(b)(i), the Company shall accept, Process and/or dispose of all County Waste delivered to the Facility on and after the earlier of the Scheduled Acceptance Date or the Acceptance Date, and such obligation shall be absolute and unconditional.

(b) On and after the Effective Date and prior to the earlier of the Scheduled Acceptance Date or the Acceptance Date, the Company shall accept County Waste delivered to the Facility during such period, in such amounts as the Company shall have given notice to the County to deliver in accordance with Section 4.01(b).

(c) The Company shall accept County Waste delivered to the Facility during the Receiving Time and at such other times as may be established pursuant to Section 4.10 hereof.

4.03 Start Up Operations and Acceptance Testing.

(a) The Company shall give the County (i) approximately ninety (90) Days prior written notice of the beginning date of start up operations at the Facility in preparation for the conduct of Acceptance Tests, which notice shall include projected delivery schedules and approximate County Waste quantities necessary for start up all pursuant to Section 4.01(b), and (ii) at least fourteen (14) Days prior written

notice of the Acceptance Testing schedule, describing each performance test to be conducted, the specific performance guarantees in Schedules 5 and 11 to be demonstrated, the date and time of each performance guarantee, Acceptance Test and Acceptable Waste quantities necessary for the performance of each Acceptance Test.

(b) The County shall, at no cost or expense to the Company, cause to be transported to the Facility the requested quantities of County Waste at the time specified by the Company pursuant to Section 4.01(b).

#### 4.04 Acceptance and Extension Period.

(a) If the Acceptance Date shall not have occurred on or before the Scheduled Acceptance Date, the Company shall have the option to use a period of not to exceed 730 Days (the "Extension Period") to secure Acceptance of the Facility. The Extension Period shall be extended due to the occurrence of an Unforeseen Circumstance during the Extension Period and also shall be extended by a number of Days equal to the aggregate number of Days after the Construction Date and prior to the Acceptance Date in which there occurred (1) any strike at the Facility Site regarding construction of the Facility, (2) the number of Days of delay, if any, caused by an Unforeseen Circumstance to a supplier of materials or subcontractor affecting construction of the Facility occurring after the Construction Date and prior to the Acceptance Date, (3) Work

delays due to County Fault and (4) delays resulting from Work changes requested by the County pursuant to Section 2.05.

(b) At any time after the Construction Date and before the last Day of the Extension Period and for reasons other than the result of the occurrence of an Unforeseen Circumstance, the Company may request, by notice to the County, that the County elect to accept the Facility at a Substituted Acceptance Standard specified in such request. In such request, the Company shall set forth in reasonable detail the bases upon which it has concluded that the Facility will not be capable of operating at the Full Acceptance Standard or the Minimal Acceptance Standard, and shall include reasonably detailed technical information to support such conclusion. The Company shall cooperate with the Consulting Engineer, and shall provide the Consulting Engineer, or permit the Consulting Engineer to obtain, all additional technical information required to allow the Consulting Engineer to determine whether the Substituted Acceptance Standard requested by the Company is reasonable. The County shall, within fifteen (15) Days after the receipt of the report of the Consulting Engineer, by notice to the Company, state whether it has elected to accept the Facility at the requested Substituted Acceptance Standard, as the Consulting Engineer shall have determined to be reasonable. The parties agree and understand that the basis for the Company's request and the election of the County, if made, to accept the Facility at a Substituted

Acceptance Standard shall be for reasons other than as a result of the occurrence of an Unforeseen Circumstance. If the County elects to accept the Facility at a Substituted Acceptance Standard, the County and the Company shall promptly prepare, initial and attach to at least one executed copy of this Agreement in the hands of the County and the Company, mutually acceptable modified Schedules 5, 10 and, if applicable, 6, reflecting the Substituted Acceptance Standard in, respectively, the performance guarantees, performance testing procedures and County Waste delivery schedule set forth therein; provided, however, such modifications shall not be made unless the Nameplate Capacity of the Facility is reduced below 1500 Tons per Day. The County shall be entitled to elect, by the same procedure, to reduce (but not increase) such standard.

(c) If at any time after the Construction Date and on or before the last Day of the Extension Period, an Acceptance Test shall demonstrate that the Facility operates at a standard equal to or greater than the lesser of (i) the Minimal Acceptance Standard or (ii) a Substituted Acceptance Standard elected by the County under paragraph (b) of this Section 4.04, the County shall, subject to the obligation of the Company to defease that amount specified in Section 4.04(d), accept the Facility pursuant to Section 2.13, and this Agreement shall continue. If the Acceptance Test shall demonstrate that, as of the last Day of the Extension Period, the Facility does not

operate at a standard equal to or greater than the lesser of (i) the Minimal Acceptance Standard or (ii) a Substituted Acceptance Standard elected by the County under paragraph (b) of this Section 4.04 for reasons other than the result of the occurrence of an Unforeseen Circumstance, then this Agreement shall terminate upon notice by the County to the Company, and the Company shall pay the Trustee an amount sufficient to defease the outstanding Bonds in accordance with the Indenture.

(d) If the Facility is accepted at less than the Full Acceptance Standard as provided in Section 4.04(c), the Facility shall be derated to a derated annual capacity at which the Facility was accepted and Schedules 5, 6, and 10, the Guaranteed Tonnage, the Facility Price, the Service Fee and the Company's rejection rights pursuant to Section 4.09(b)(i)(3) shall be reduced accordingly, provided, however, that such reductions shall not be made unless the Nameplate Capacity of the Facility is reduced below 1500 Tons per Day. If the Facility is to be derated, the Company shall (1) pay to the Trustee within fifteen (15) Days after the Acceptance Date the derated Facility payment, which shall be determined by multiplying the principal amount of the Bonds by the percentage of the Nameplate Capacity by which the Facility is derated and in the case of a deration pursuant to Section 4.04(c) only, (2) pay to the County a Landfill capacity charge of \$1.4 million per percentage point of

shortfall in capacity below a Nameplate Capacity of 1500 Tons per Day.

If the Facility is derated, the fraction used in determining the definition of Allocable Bonds shall be adjusted. Upon deration, the resulting Nameplate Capacity shall be substituted for the Nameplate Capacity initially used as the denominator in such fraction, and to the extent the Facility is derated to a Nameplate Capacity of less than 1500 Tons per Day such Nameplate Capacity shall be substituted for the 1500 Tons per Day value used as the numerator in such fraction. The adjusted fraction shall thereafter be used in determining the definition and amount of Allocable Bonds.

4.05 Excess County Waste; Additional Acceptable Waste.

(a) Subject to Section 4.05(b), (c), (d), (e), (f) and (h), below, the Company, on and after the earlier of the Scheduled Acceptance Date or the Acceptance Date, shall be free to enter into long or short-term contracts or on a spot basis for accepting for Processing, Acceptable Waste other than County Waste in excess of the Guaranteed Tonnage. For purposes of this Agreement, "spot basis" shall mean daily, "short-term" shall mean more than one (1) Day but no longer than one (1) month, and "long-term" shall mean longer than one (1) month but, no longer than two (2) years; provided, however, that there shall be no limitation on the length of the term of any contract the Company may enter into for accepting and Processing Acceptable Waste for

Facility disposal capacity in excess of 465,000 Tons per Billing Year.

(b) (i) No later than six (6) months prior to the unextended Scheduled Acceptance Date, the County shall have the right to contract with the Company, and the Company shall enter into such contract, for the delivery of all or any portion of the available disposal capacity of the Facility up to and including 50,000 Tons per Billing Year over and above the Guaranteed Tonnage (the "Excess Guaranteed Tonnage") for the remainder of the term of this Agreement unless reduced pursuant to Section 4.05(f). For each Ton of Excess Guaranteed Tonnage, the County will pay the Excess Tonnage Charge pursuant to Section 6.04(a). Except for those provisions of this Agreement that are specifically applicable to the Guaranteed Tonnage only, including the payment of the Service Fee, the parties' obligations under this Agreement with respect to the Guaranteed Tonnage shall be equally applicable to the Excess Guaranteed Tonnage. If the County does not exercise its right and enter into such a contract with the Company prior to said six (6) month period, the County's right to contract for the delivery of Excess Guaranteed Tonnage shall be limited to its first refusal rights pursuant to Section 4.05(b)(ii).

(ii) For the first 50,000 Tons of available Facility Processing capacity over and above the Guaranteed Tonnage, the Company shall not enter into any short or long-term



contract for the Processing of Acceptable Waste other than County Waste without offering the County, as the prime customer, a right of first refusal as to such available disposal capacity during the term of this Agreement. If the Company proposes to enter into such a contract, the County shall have fourteen (14) Days after receipt of notice from the Company to exercise its right of first refusal by contracting for any portion of or the remaining Excess Guaranteed Tonnage for the remainder of the term of this Agreement unless reduced pursuant to Section 4.05(f). The County's obligation to deliver the Excess Guaranteed Tonnage contracted pursuant to this Section 4.05(b)(ii) only shall take effect on the later of (A) three (3) Days after the County has given written notice to the Company that it will exercise its right-of-first refusal by contracting for the delivery of all or a portion of such available disposal capacity or (B) the expiration of the applicable short or long-term contract giving rise to such available disposal capacity.

If the Company proposes to offer additional disposal capacity on a spot basis on any Day, the Company shall not enter into any arrangement for Processing Tons of spot basis Acceptable Waste without offering the County, as the prime customer, a right of first refusal as to such spot basis disposal capacity. The Company shall notify the County by telephone on or before 2 P.M. of the previous Day, and the County shall have two (2) hours to

respond to such telephone notice in order to exercise its right of first refusal.

(c) Notwithstanding any other Section of this Agreement, the Company shall not enter into any contract or arrangement for accepting, Processing and/or disposing of Acceptable waste other than County Waste at the Facility without the prior approval by the County as to the Person or source of such Acceptable Waste.

(d) The County's right of first refusal with respect to short or long-term contracts under Section 4.05(b)(ii) shall be inapplicable to available Facility Processing capacity in excess of 465,000 Tons per Billing Year.

(e) The Excess Guaranteed Tonnage shall be delivered pursuant to a delivery schedule mutually agreed to by the Company and the County, subject to the same Receiving Time and limitations as are set forth in Schedule 6; it being understood that the Company will use all reasonable efforts to accommodate the County's delivery schedule concerning the Excess Guaranteed Tonnage.

(f) If at any time during the term of this Agreement the County has committed to Excess Guaranteed Tonnage, the Company shall allow the County to reduce any portion of the Excess Guaranteed Tonnage six (6) months after the date upon which it provides the Company notice of its intention to reduce all or any portion of such Excess Guaranteed Tonnage.

(g) All Acceptable Waste delivered to the Facility pursuant to Sections 4.01(a), and 4.09(a) and Acceptable Waste delivered to the Facility on a spot basis which is secured by the Company at the County's request to replace a shortfall in the County's Guaranteed Tonnage (or, if applicable, the Excess Guaranteed Tonnage) shall be County Waste for purposes of meeting the County's delivery of the Guaranteed Tonnage and, if applicable, the Excess Guaranteed Tonnage.

(h) Notwithstanding Sections 4.05(a), (b)(ii) and (c), the Company shall neither enter into any short or long-term contract or on a spot basis for accepting Acceptable Waste, other than County Waste, for Processing and/or disposal nor accept any Acceptable Waste for Processing and/or disposal other than County Waste, if the effect of such action would impair or adversely effect the obligations of the County pursuant to Sections 4.01(a) and 4.09(a) and/or the obligations of the Company pursuant to Sections 4.02(a) or 4.09(b)(i)(3).

4.06 Operation of Facility. The Company shall operate and maintain the Facility in such a manner as to ensure that the Facility is able to receive and Process Acceptable Waste in accordance with this Agreement, generate saleable electric power and, at the option of Company, recover other Recovered Resources and comply with the requirements of Schedules 5 and 10. Following Acceptance, the Company shall exercise its best efforts to meet the EPA's Toxicity Test as it may pertain to analysis of

Process Residue, at any time such test may be required by the EPA, the State or the County.

4.07 Facility Services and Facility Maintenance.

(a) Service Coordinators.

(i) The County shall, by the Contract Date, designate in writing a person to act as its service coordinator with respect to matters which may arise during the performance of this Agreement, and such person shall have authority pursuant to such written designation to transmit instructions and receive information and confer with the Company's service coordinator.

(ii) The Company shall, by the Contract Date, designate in writing a person to act as its service coordinator with respect to matters which may arise during the performance of this Agreement, and such person shall have authority pursuant to such written designation to transmit instructions and receive information and confer with the County's service coordinator.

(b) Change in Coordinators. The County or the Company may change their respective designations of service coordinators from time to time by notice to the other party.

(c) Facility Services, Maintenance, Etc.

(i) Safety of Persons and Property. The Company shall, on and after the Effective Date and in a manner consistent with applicable law and good safety practice, establish and maintain safety procedures for the Facility at a

level consistent with normal safety procedures for plants similar to the Facility.

(ii) Repair and Maintenance. The Company shall, on and after the Effective Date, keep the Facility in good repair, consistent with sound engineering practices and standards for Mass Burn steam-generating Resource Recovery facilities, and maintain an adequate reserve of spare parts to ensure that the Facility can be operated in accordance with this Agreement. The Company shall maintain the exterior and the interior of the Facility in a clean and orderly fashion consistent with sound levels of maintenance provided at facilities similar to the Facility, which responsibility shall include the removal of snow, debris and other materials that may impair the delivery, acceptance, Processing and disposal of Acceptable Waste at the Facility.

(iii) Facility Equipment Services. The Company shall, on and after the Effective Date, (1) employ qualified personnel to operate the Facility in compliance with all applicable federal, State, and County laws, rules and regulations and permits, including those pertaining to the environment and OSHA; (2) notify the County promptly if the Facility should be seriously damaged, irrespective of cause; and (3) not remove of any unit of equipment from the Facility that would impair or inhibit the operation of the Facility without the prior approval of the County.

(iv) Public Relations. The Company shall, on and after the Contract Date, be responsive to requests for information from the public and, after the Acceptance Date, will provide, as part of the Facility, an enclosed area reasonable suitable for receiving visitors to the Facility on a Monday through Saturday basis and will designate a person to conduct the public on tours of portions of the Facility which, in the Company's reasonable discretion, may be visited.

4.08 County's Visitation and Inspection of the Facility; Record Keeping and Reporting.

(a) The County, its agents and its representatives shall have, at any time during the term of this Agreement and upon prior reasonable notice to the Company, the right to visit and to take visitors through the Facility in order to observe and to permit others to observe, the various services which the Company performs, provided that such visitations shall not interfere with the Company's obligations under this Agreement.

In connection with such inspections or visitations, the County shall, on behalf of itself, its agents and representatives, comply, and cause its agents and representatives to comply, with all reasonable rules and regulations adopted by the Company, including a requirement that each person inspecting or visiting the Facility sign a statement agreeing (i) to assume the risk of the inspection or visitation but not the risk of injury due to

the intentional or negligent acts of the Company and (ii) not to disclose or use, consistent with applicable law, any confidential information of the Company other than for the purpose for which it was furnished.

Inspections by federal, state or County officials pertaining to compliance with licensed or permitted activities may be conducted without notice to the Company.

(b) (i) The Company shall, on and after the earlier of the Scheduled Acceptance Date or the Acceptance Date, establish and maintain an information system to provide storage and ready retrieval of Facility operating data, including all information necessary to verify calculations made pursuant to Articles V and VI.

(ii) The Company shall prepare and maintain proper, accurate, and complete books and records and accounts of all transactions related to the Facility.

(iii) The Company shall provide the County, together with the bill for each Billing Period, the following operating data: (1) the quantity of County Waste received at the Facility on each Day during such Billing Period; (2) the quantity of Acceptable Waste received from other Persons, if any, during such Billing Period; (3) the amount and conditions of steam generated each Day, if any; (4) hourly electricity produced each Day, and summary totals of daily electricity sales during such Billing Period; (5) the total quantity of Process Residue

generated at the Facility during such Billing Period; (6) the quantity of Acceptable Waste other than County Waste delivered to the Facility but not Processed, if any, Bypassed Waste, Unacceptable Waste and Hazardous Waste delivered to the Landfill or other disposal site as the County shall, from time to time, designate pursuant to Section 5.01 during such Billing Period; (7) the quantity of Process Residue resulting from Processing County Waste and Acceptable Waste, respectively, delivered to the Landfill or other disposal site during such Billing Period; (8) the anticipated operating schedule for the next Billing Period; and (9) the quantity of lime, electricity, natural gas and sewer services used during such Billing Period. These reports shall present the data in a form reasonably acceptable to the County and the Consulting Engineer.

(iv) The Company shall provide the County, its auditors, and the Consulting Engineer and the Independent Engineer with reasonable access, including, where feasible, access by computer, to scalehouse and Facility records relating to quantities of Acceptable Waste (with separate records for County Waste) delivered to the Facility and Bypassed Waste, Process Residue and Residue leaving the Facility.

(c) (i) Upon the request of the County and upon one hour prior notice, the Company shall conduct tests of the Facility for combustible material content of the Residue. Such tests may be conducted after the Acceptance Date at such



intervals as the County in its sole discretion deems necessary to determine whether the Company is in compliance with the Residue quality guarantee specified in Schedules 5 and 10. If the County undertakes such test and the results of such test indicate that the Company (A) is in compliance with such guarantee, the County will pay the cost of such tests or (B) is not in compliance with such guarantee, the Company shall pay the cost of such test.

(ii) If the Facility is not in compliance with the Process Residue guarantee specified in Section 4.08(c)(i), Section 5.01(b)(4) shall apply.

#### 4.09 County Waste Services

(a) County's Guaranteed Tonnage. On and after the earlier of the Scheduled Acceptance Date or the Acceptance Date, during the Receiving Time, the County shall cause to be delivered to the Facility, at least the Guaranteed Tonnage and, as applicable, the Excess Guaranteed Tonnage; provided, however, that the County shall have no obligation to deliver County Waste to the Facility in excess of the Guaranteed Tonnage and, as applicable, the Excess Guaranteed Tonnage in any Billing Year. At the request of the Company, the County shall use all reasonable efforts to assist the Company in obtaining Acceptable Waste originating elsewhere to the extent of the Facility's capacity in excess of the Guaranteed Tonnage and, as applicable, the Excess Guaranteed Tonnage. If the County fails to deliver or cause to be delivered the Guaranteed Tonnage and, as applicable,

the Excess Guaranteed Tonnage, the County shall, subject to the deferral provision in Section 4.01(a), as applicable nevertheless pay to the Company the Service Fee for the Guaranteed Tonnage and, as applicable, the Excess Tonnage Charge for the Excess Guaranteed Tonnage, in accordance with Article VI.

(b) Rejection of Deliveries.

(i) Company's Rejection Rights. The Company may reject (1) except as provided in Section 4.10, County Waste delivered at hours other than the Receiving Time; (2) County Waste to the extent it is unable to accept and Process such Waste as a result of (A) Unforeseen Circumstances or (B) County Fault, provided, however, that the Company shall accept County Waste in excess of its rejection rights under this Section 4.09(b)(i)(2)(A) and (B) up to the transfer capacity of the Facility as specified in Section 2.02 (but in no event in excess of that amount of County Waste specified in Schedule 6) for the purpose of transferring such amount of County Waste for disposal at the Landfill or other disposal location, and provided, further, that such excess Waste shall not be Bypassed Waste for purposes of this Agreement unless the last paragraph of Section 6.07 is applicable; (3) County Waste in excess of that weekly and monthly tonnage specified in Schedule 6; (4) Hazardous Waste and (5) Unacceptable Waste.

(ii) Effect of Company's Rejection Rights.

County Waste which the Company shall refuse to accept pursuant to

Section 4.09(b)(i), other than clause (2)(A), shall not be included in the computation of the Service Fee, County Waste, the Guaranteed Tonnage or the Excess Guaranteed Tonnage.

(c) Composition of County Waste. Nothing in this Agreement shall be construed to mean that the County guarantees the composition of any County Waste as it pertains to the proportion of any material contained therein, the energy value thereof, or any other aspect thereof, nor shall the requirements set forth in Schedules 5, 10 and 21 be diminished due to any variation in the composition of the County Waste; provided, however, that if the Company can demonstrate that the energy value of County Waste is outside the range of 3800 BTU to 6000 BTU per pound for a period of twelve (12) consecutive weeks, then such event shall be treated as an Unforeseen Circumstance, the County shall not be obligated for the payment of lost energy revenues resulting from such variation in BTU content and the Company may propose in a writing to the County adjustments in the Service Fee, the Guaranteed Tonnage, the Excess Guaranteed Tonnage, the Company's rejection rights pursuant to Section 4.09(b)(i) and the Excess Tonnage Charge to reflect such a change in operating conditions of the Facility. In its proposal, the Company shall set forth in reasonable detail the results of measurements made and tests conducted during the period in question reasonably acceptable to and confirmed by the Consulting Engineer, demonstrating that County Waste with an energy content

outside the above limits was Processed through the Facility during such period. Within thirty (30) Days after the County receives the Company's proposal, the County and the Company shall undertake discussions of such proposal in good faith and shall use their best efforts to agree on an equitable adjustment of the Service Fee, the Guaranteed Tonnage, the Excess Guaranteed Tonnage, the Company's rejection rights pursuant to Section 4.09(b)(i) and the Excess Tonnage Charge. If the County and the Company shall fail to agree on such adjustment within thirty (30) days after commencement of such discussions, the matter shall be referred to arbitration pursuant to Section 9.03 to resolve such failure to agree on an equitable adjustment and to determine whether an adjustment is required; provided that upon such referral the notice called for in the introductory clause of the first sentence of Section 9.03(c) shall be deemed waived by the County and the Company.

#### 4.10 Receiving and Operating Hours.

(a) The Company shall keep the Facility open for the receiving of County Waste during the Receiving Time.

(b) The Company may request and accept the delivery of County Waste at times other than the Receiving Time at no additional cost to the County. To the extent that the County can do so without incurring additional expense, it will use reasonable efforts to honor the Company's request.

(c) The County may request the Company to accept deliveries of County Waste at times other than the Receiving Time upon seven (7) Days prior written notice or such shorter notice as may be practicable in the event of the occurrence of a natural disaster or other emergency condition. During such disaster or other emergency condition, the Company shall use reasonable efforts to accommodate the County's request. If the Company accepts County Waste pursuant to this Section 4.10(c) at hours other than the Receiving Time, the County shall pay (a) such additional costs as the Company and the County may mutually agree or (b) in the absence of such agreement, all direct additional costs incurred by the Company as a result of such additional hours of operation upon submission of Cost Substantiation.

(d) The Company shall operate the Facility on a basis consistent with good operating practice for facilities similar to the Facility.

(e) The Company may reasonably regulate the flow of traffic through the Facility scales and into the Facility receiving area, and shall deny admission to the Facility Site to any vehicle carrying Hazardous Waste or Unacceptable Waste, and any vehicle which is not in a safe condition, and may otherwise promulgate reasonable safety and traffic rules applicable to the Facility Site.

4.11 Weighing of County Waste Deliveries, Etc. The Company shall maintain weighing facilities at the Facility Site

for the purpose of determining the total tonnage of Acceptable waste delivered to the Facility and the respective amounts of Process Residue and Recovered Resources other than electricity and steam, if applicable, leaving the Facility. Each vehicle delivering County Waste to the Facility shall be weighed. In addition, each vehicle delivering County Waste shall have the maximum gross and tare weights conspicuously displayed on the exterior of the vehicle in a location designated by the County and reasonably visible to the operator at the scale house at the Facility Site. The Company may determine the weight of vehicles leaving the Facility by either weighing out such vehicles or by establishing and relying on a system of posted maximum gross and tare weight measurements with regard to such vehicles. Vehicles transporting County Waste shall have an identification of the County or a person designated by the County conspicuously displayed on the exterior of the vehicle in a location designated by the County and reasonably visible to the operator in the scale house at the Facility Site or shall deliver to the scale house operator a ticket, voucher or other identifying system clearly designating the vehicle as delivering County Waste. The Company shall maintain a weight record containing the weight, date, time and vehicle identification of each vehicle delivering County Waste entering and exiting the Facility.

The Company, at its cost and expense, shall test and recalibrate the scales as often as may be required by State

law. Either the Company or the County may request more frequent testing of the scales at the requesting party's cost and expense. If at any time testing of the weighing facilities indicate that the scales do not meet the accuracy requirements of the applicable County agency, any adjustments of scale records actually recorded during the preceding thirty (30) Days shall be negotiated by the County and the Company. If all weighing facilities are incapacitated or are being tested, the Company shall estimate the quantity of County Waste delivered on the basis of truck volumes and estimated data obtained from historical information pertinent to the County. These estimates shall take the place of actual weighing records during the scale outage.

The Company shall provide copies of all weigh records pertaining to County Waste deliveries to the County. Copies of all such daily weigh records shall be maintained by the Company for a period of at least two years. The County hereby reserves the right to have its representative present at the scale house on the Facility Site during all operating hours to monitor the Company's compliance with the provisions of this Section 4.11 and for the purpose of preparing the County's billing ticket for haulers.

4.12 Storage. Acceptable waste shall be stored in the Pit. No Acceptable Waste, Unacceptable Waste, or Hazardous Waste may be stored outside the Facility buildings except during an

emergency (other than one caused by the Company), and then only if the environmental and safety standards applicable to the such storage at the Facility are met.

4.13 Title to County Waste. Title to all County Waste delivered to the Facility and accepted by the Company shall pass to the Company when such County Waste is deposited in the Pit. Title to Hazardous Waste and Unacceptable Waste not Processed which is delivered by or on behalf of the County whether or not accepted by the Company shall remain in the County.

#### ARTICLE V - LANDFILL AND RELATED MATTERS

5.01 Site. (a) The County shall cause the Landfill to be made available to the Company for the ten (10) hours a Day from 7:00 A.M. to 5:00 P.M. on a Monday through Friday basis for disposal of Process Residue, Bypassed Waste and County Waste not Processed at the Facility and unsold Recovered Resources. The Company shall neither direct nor deliver Acceptable Waste that is not County Waste to the Landfill for disposal nor shall the Company direct or deliver Hazardous Waste and Unacceptable Waste delivered by Persons other than the County to the Landfill for disposal. In the event that the Landfill in use at any time is unavailable due to the occurrence of an Unforeseen Circumstance, the County shall nevertheless provide an alternate Landfill unless the County is prevented by Unforeseen Circumstances from providing any Landfill.



(b)(1) The Company shall be entitled to dispose at the Landfill or such alternate locations as the County may direct, without cost to the Company, of all (A) Process Residue resulting from the Processing of County Waste, (B) County Waste not Processed at the Facility due to County Fault or Unforeseen Circumstances, if any, and (C) County Waste not Processed at the Facility prior to the earlier of the Scheduled Acceptance Date or the Acceptance Date.

(2) On and after the earlier of the Scheduled Acceptance Date or the Acceptance Date, for Bypassed Waste disposed of at the Landfill, the Company will pay a disposal fee of fifty (\$50.00) dollars per Ton as of December 31, 1985, escalated pursuant to the Escalation Factor; provided, however, that if a Bypassed Waste disposal fee pursuant to this Section 5.01(b)(2) becomes due and payable prior to the Acceptance Date, such payment shall be deferred until Acceptance has been achieved. Upon Acceptance of the Facility, the Company shall pay within thirty (30) Days thereafter the accrued Bypassed Waste disposal fee, plus interest pursuant to Section 9.21.

(3) On and after the Contract Date, for Process Residue resulting from the Processing of Acceptable waste other than County Waste, the Company will pay a disposal fee of eighteen (\$18.00) dollars per cubic yard as of December 31, 1985, escalated pursuant to the Escalation Factor.

(4) If a Process Residue test requested by the County pursuant to Section 4.08(c)(i) demonstrates more than four (4%) percent unburned combustibles, the Tons of Bypassed Waste shall be increased, from the date of the County's notice requesting such test until the date of the Company's notice that the Facility meet such four percent (4%) standard, by an amount equal to the product of (x) the Tons of County Waste Processed during such period and (y) the percentage of unburned combustibles in excess of four percent (4%) determined by the most recent Process Residue test. Within thirty (30) Days after giving notice that the Facility has been modified and does meet the four percent (4%) standard, the Company, at its cost and expense, shall request and conduct a Process Residue test to confirm the Company's notice. If such Process Residue test demonstrates that the Facility meets the four percent (4%) standard, the Facility shall be deemed to have met such standard from the date of the Company's notice of such test. If such Process Residue test demonstrates that the Facility does not meet the four percent (4%) standard despite the Company's notice to the contrary, the Facility shall be deemed to have failed such Process Residue test and the Facility shall be deemed not to meet the four percent (4%) standard as if the Company had not given notice that the Facility met the four percent (4%) standard.

(c) If County Waste is not Processed at the Facility due to County Fault or Unforeseen Circumstances (in

which event Section 5.01(b)(1) shall be applicable), the Company agrees to exercise its best efforts to obtain landfill disposal services at a location other than the Landfill that would minimize transportation costs, disposal costs and Pass Through Costs to the County.

5.02 Landfill Scale House. The County, at its expense, shall test and recalibrate the scales as often as may be required by State law. Either the Company or the County may request more frequent testing of the scales at the requesting party's cost and expense.

If, at any time, testing of the scales at the Landfill indicates that such scales do not meet the accuracy requirements of the applicable State or County agency, any adjustments of scale records actually recorded during the preceding thirty (30) Days shall be negotiated by the County and the Company. If all such scales are incapacitated or are being tested, the County shall use weight records at the Facility or estimate the quantity of Process Residue and Bypassed Waste delivered on the basis of truck volumes and estimated data obtained from historical information pertinent to the Company. These estimates shall take the place of actual weighing records during the scale outage.

The County shall, on or before the 15th Day of each Billing Period, provide the Company copies of the following data for each delivery of Process Residue or Bypassed Waste to the Landfill during the prior Billing Period: (1) the date of such

delivery; (2) the time of such delivery; (3) the vehicle identification number of the vehicle making such delivery; (4) the character of the Solid Waste delivered (Process Residue resulting from Processing County Waste, Process Residue resulting from Processing Acceptable Waste other than County Waste or Bypassed Waste); and (5) the weight of such delivery. Copies of all records shall be maintained by the County for a period of at least two years. The Company hereby reserves the right to have its representative present at the scale house at the Landfill during all operating hours to monitor the County's compliance with the provisions of this Section 5.02.

5.03 Hazardous and Unacceptable Waste.

(a) The County shall use all reasonable efforts in good faith to cause only Acceptable Waste to be delivered to the Facility. However, the Company and the County agree that any inadvertent delivery of Hazardous or Unacceptable Waste to the Facility shall not constitute a breach of the County's obligations hereunder.

(b)(i) The Company shall notify the County of all County-delivered Hazardous Waste and Unacceptable Waste delivered to the Facility and placed in the Pit or otherwise abandoned on the Facility Site and the County shall cause such waste to be removed at the sole cost of the County (as a Pass Through Cost), subject to clause (ii) below. To the extent that it can be determined that a Person other than the County delivered

Hazardous Waste or Unacceptable Waste to the Facility which was placed in the Pit or otherwise abandoned at the Facility Site and such Person cannot be identified, the Company shall remove from the Facility Site, transport and dispose of, as provided in Section 5.01(a), all such Hazardous Waste and Unacceptable Waste delivered to the Facility at the sole cost of the Company. The Company shall not knowingly accept Hazardous Waste and Unacceptable Waste for Processing at the Facility from the County or any other Person.

(ii) With respect to the transportation and disposal of County-delivered Hazardous Waste accepted inadvertently at the Facility, the Company shall pay all such costs in any Billing Year up to \$100,000, escalated in accordance with Schedule 15, and the County shall pay to the Company (as a Pass Through Cost) the amount of such costs in any Billing Year in excess of the \$100,000 escalated amount. The Company shall also pay all costs in any Billing Year up to \$25,000, escalated in accordance with Schedule 15, for the transportation and disposal of County-delivered Process Residue that is Hazardous Waste referred to in Section 5.03(b)(iii); provided that such \$25,000 escalated amount shall be included in, rather than as an addition to, the \$100,000 escalated amount otherwise applicable to inadvertent deliveries of County Hazardous Waste.

(iii) With respect to Process Residue that is the result of Processing County delivered Hazardous Waste, not

a result of the Company's improper operation, the County, subject to Section 5.03(b)(ii), shall pay as a Pass Through Cost, all costs of its removal from the Facility Site, transportation and disposal at the County's designated location; provided that if such County Process Residue is County Hazardous Waste as the result of a Change in Law, then the increased cost of its removal from the Facility Site, transportation and disposal shall be subject to and included in the Service Fee Increase Limitation.

(iv) The Company agrees to exercise due care in the handling and storage of Hazardous Waste or Unacceptable Waste delivered to the Facility (regardless of by whom such Waste was delivered). Removal, transportation and disposal of Hazardous Waste, and Unacceptable Waste, shall be accomplished in accordance with all federal and State laws, rules and regulations governing such waste.

(v) The Company shall provide Cost Substantiation for all direct costs incurred by the Company and paid for by the County under this Section 5.03.

(c) The Company, in its sole discretion, shall have the right to inspect on the Facility Site the contents of any vehicle delivering Solid Waste to the Facility, including the right to direct the operator of such vehicle to unload at a location other than the Pit, to determine if such vehicle contains County-delivered Hazardous Waste, County-delivered

Unacceptable Waste or Hazardous Waste or Unacceptable Waste delivered by Persons other than the County.

5.04 Removal of Waste other than Hazardous and Unacceptable Waste. The Company shall remove and transport Process Residue, Acceptable Waste which is not Processed at the Facility, and Bypassed Waste removed from the Facility for disposal at the Landfill in covered or totally enclosed vehicles. The Company shall comply with all applicable codes, rules and laws regulating such materials, its transportation and its disposal.

#### ARTICLE VI - SERVICE FEE PAYMENTS

##### 6.01 Service Fee.

(a) Commencing with the first Billing Period and for each Billing Period thereafter, the Company shall, subject to the deferral provision in Section 4.01(a), as applicable, be paid a Service Fee in May 30, 1986, dollars, by the County for accepting, Processing and/or disposing of County Waste and the Service Fee shall equal (i) \$0 per Ton of County Waste delivered up to and including 365,000 Tons per Billing Year and (ii) \$60 per Ton for the next 50,000 Tons of County Waste delivered above 365,000 Tons up to and including 415,000 Tons per Billing Year.

(b)(i) If at the end of any Billing Year the County, due to County Fault, has been unsuccessful in delivering 415,000 Tons of County Waste (specified in Section 6.01(a)(i))

and a Service Fee is to be paid to the Company pursuant to Sections 4.01(a) and 4.09(a), the Service Fee shall be an amount equal to the product of (A) that portion of 365,000 Tons of County Waste which is not delivered to the Facility during such Billing Year times (B) the average net electrical revenues (as defined in paragraph (d) received and accrued per Ton of County Waste Processed during such Billing Year plus the product of (C) that portion of the next 50,000 tons of County Waste to be delivered above 365,000 Tons up to and including 415,000 Tons per Billing Year which is not delivered times (D) the Service Fee per Ton to be paid pursuant to Section 6.01(a)(ii). (Absent the receipt of net electrical revenues during such Billing Year, the average net electrical revenues received during the last Billing Year in which electrical revenues were received will be used. Absent the receipt of such revenues during any prior Billing Year, a reasonable estimate of the amount of such revenues will be agreed to by the parties.)

(ii) If at the end of any Billing Year, due to the occurrence of an Unforeseen Circumstance, (A) the Company is unable to accept, Process and dispose of County Waste, or the County is unable to delivery County Waste, in the amount of 415,000 Tons, and a Service Fee per Ton is to be paid to the Company pursuant to Sections 6.06(a) or 6.06(b), the Service Fee per Ton shall be an amount equal to the Service Fee per Ton to be paid pursuant to Section 6.01(a)(ii), or (B) the County elects



pursuant to Sections 6.08(c)(i) or 6.08(e)(iv) to have the Company dispose of County Waste by utilizing the transfer capacity of the Facility, the Service Fee per Ton for up to and including 415,000 Tons of County Waste shall be equal to the Service Fee per Ton to be paid pursuant to Section 6.01(a)(ii) in addition to the Service Fee increase due to the Unforeseen Circumstance.

(c) The County shall pay, subject to the deferral provision in Section 4.01(a), as applicable, to the Company any amounts owed by the County to the Company pursuant to Section 6.01(b) within thirty (30) Days of its receipt of the Company's invoice.

(d) For purposes of Section 6.01(b), "net" electrical revenues shall mean the total electric revenues derived from sales of Recovered Resources pursuant to any Electrical Sales Contract less (i) administrative costs charged by purchasers of Recovered Resources pursuant to any agreements between the Company and such purchasers and (ii) commissions, transportation, and wheeling charges and similar direct charges paid by the Company in connection with the sale of Recovered Resources.

(e) If County Waste is not delivered due to Unforeseen Circumstances or County Fault or the Company is unable to accept, Process and dispose of County Waste due to the occurrence of an Unforeseen Circumstance and the County is

required to pay the Service Fee prescribed in Section 6.01(b), the Company shall exercise reasonable efforts to reduce the operation and maintenance expense and Pass Through Costs applicable to the undelivered Tons and the Service Fee prescribed in Section 6.01(b) shall be reduced to reflect such reduction in operation and maintenance cost and Pass Through Costs.

6.02 Service Fee Adjustments.

For any Billing Period (except with respect to clause (c) below), the Service Fee shall be adjusted (a) for Work changes or cost increases or decreases prescribed in Sections 2.04(a)-(c), (e) and (f), 2.05, 2.06 and 2.07 and pursuant to the procedures set forth in Sections 6.08 and 6.09, (b) to the extent the Company's operation and maintenance expense increases or decreases as a consequence of an Unforeseen Circumstance, provided the Company furnishes Cost Substantiation, (c) pursuant to the Escalation Factor on an annual basis, (d) for Pass Through Costs which shall be those costs and expenses accrued for such Billing Period for Pass Through Costs set forth in Schedule 17, subject to Cost Substantiation and (e) those adjustments to the Service Fee recognized in Sections 4.04, 4.09 and 6.06-6.09.

Adjustments to the Service Fee recognized in the immediately preceding paragraph of this Section 6.02(a) shall be limited to (i) the Allocable Bonds to be issued pursuant to Section 6.09 or, as applicable, (ii) those costs recognized in such immediately preceding paragraph multiplied by the fraction

in the definition of Allocable Bonds, amortized as provided in Section 6.09.

For the purposes of adjustments to the Service Fee due to Unforeseen Circumstances, the average per Ton increase in the Service Fee for the Guaranteed Tonnage shall be the basis for determining whether the Service Fee Increase Limitation has been reached and for application of the Service Fee Increase Limitation to the terms and conditions described in Section 6.08.

6.03 Landfill Costs. Landfill Costs under Section 6.07, for any Billing Year, shall be an amount equal to the product of (i) fifty dollars (\$50.00) per Ton of Bypassed Waste times (ii) the Escalation Factor as of December 31, 1985.

6.04 Excess Tonnage Charge. For (a) Tons of County Waste Processed and/or disposed of by the Company at a location other than the Landfill in excess of 415,000 Tons per Billing year, or (b) Excess Guaranteed Tonnage the County fails to deliver due to County Fault or the occurrence of an Unforeseen Circumstance, the County shall pay the Company \$60 per Ton in December 31, 1985, dollars, escalated by the Escalation Factor (the "Excess Tonnage Charge"), for each such excess Ton; provided, however, that the Excess Tonnage Charge for the Excess Guaranteed Tonnage shall be subject to the deferral provisions in Section 4.01(a), as applicable. For purposes of this Section 6.04, only Tons of County Waste shall be treated as Excess Tonnage.

6.05 Billing and Payment of the Service Fee.

(a) For each Billing Period, the Company shall render a statement to the County within at least fifteen (15) Days prior to the first Day of such Billing Period. Each statement shall set forth the amounts calculated in accordance with Sections 6.01, 6.02, 6.03 and 6.04 and other pertinent Sections of this Agreement for such Billing Period. Any credit to the Service Fee resulting from insurance proceeds paid to the Company in connection with Unforeseen Circumstances since the date of the last statement, all other amounts payable by the County to the Company hereunder for such Billing Period, all other amounts payable by the Company to the County hereunder for such Billing Period and a reconciliation of the previous statement to actual amounts since the date of the last statement shall all be included in such statement. Any balance from the statement due or either the Company or the County shall be paid, subject to the deferral provisions in Section 4.01(a) as applicable, ten (10) Days prior to the end of such Billing Period.

(b) To the extent that the actual value of any item in any Billing Period statement cannot be accurately determined at the Billing Period statement date, such amount shall be billed on an estimated basis and an adjustment shall be made to reflect the difference between such estimated amount and the actual amount of such item on the Billing Period statement

next following the date on which the Company or the County learns the exact amount of such item.

(c) Ninety (90) Days prior to the end of each Billing Year, the Company shall provide to the County a written statement setting forth its reasonable estimate of the aggregate Service Fee for the next Billing Year, which statement shall not be binding on the Company.

(d) The Company shall also provide the County with copies of each statement rendered to any hauler delivering Solid Waste to the Facility.

(e) This Section 6.05 shall survive the termination or expiration of the term of this Agreement.

6.06 Unforeseen Circumstances; Performance.

(a) If during any Billing Period, due to the occurrence of an Unforeseen Circumstance, the Company is unable to accept, Process and dispose of Acceptable Waste delivered to the Facility up to the Company's rejection rights pursuant to Section 4.09(b)(i) or is unable to dispose of all of the Process Residue due to the occurrence of any Unforeseen Circumstance affecting the availability of the Landfill, unless a landfill is available pursuant to Section 5.01(c), the Company shall accept, Process and dispose of such lesser amount of County Waste that the Facility is capable of Processing and the Process Residue of which the Company is capable of disposing. In addition, the Company shall accept and dispose of County Waste up to the

transfer capacity of the Facility (but in no event in excess of that amount of Tons specified in Schedule 6), and accept County waste up to the capacity of the Pit (assuming an Unforeseen Circumstance does not adversely affect the Pit and/or the transfer capacity of the Facility) and the Company shall have no obligation to accept, Process or dispose of County Waste in excess of such amount. The County shall, subject to the deferral provision in Section 4.01(a), as applicable, pay the Service Fee, as adjusted pursuant to Sections 6.01(e) and 6.02, and, if applicable, the Excess Tonnage Charge, and the County shall dispose of its County Waste not accepted, Processed and disposed of by the Company.

(b) If during any Billing Period, due to the occurrence of an Unforeseen Circumstance, the County shall be unable to deliver the Guaranteed Tonnage or any portion thereof, or, if applicable, the Excess Guaranteed Tonnage or any portion thereof, to the Facility, the County shall pay, subject to the deferral provision in Section 4.01(a), as applicable, (i) the Service Fee specified in Section 6.01(b) and (ii) and, as applicable, the Excess Tonnage Charge.

(c) Any increase in the costs of operation and maintenance of the Facility shall be limited to the incremental direct cost increases to the Company, for which the Company shall provide Cost Substantiation; and provided that if proceeds of any business interruption insurance required to be maintained by the

Company pursuant to this Agreement shall be available to the Company, the Service Fee payable (if any, after taking into account the deferral provision in Section 4.01(a), as applicable) in such Billing Period shall be reduced by the amount of such proceeds.

6.07 Company Non-Performance

If during any Billing Period, the Company does not accept, Process or dispose of at least the Guaranteed Tonnage and, as applicable, the Excess Guaranteed Tonnage, pursuant to Schedule 6 through the Facility or at a disposal facility other than the Landfill due to Company Fault, the Company shall dispose of the Bypassed Waste at its cost and expense, and the County shall pay, subject to the deferral provision in Section 4.01(a), as applicable, the Service Fee and, as applicable, the Excess Tonnage Charge. If the Company fails to so dispose of the Bypassed Waste, the County shall dispose of such Bypassed Waste and the Company shall pay to the County for each such Billing Period the sum of the following:

(a) Transportation costs which shall be calculated by multiplying (i) the positive difference between (A) the average cost per Ton for transportation of County Waste to the Landfill or appropriate disposal facility in such Billing Period and (B) the average cost per Ton for transportation of County Waste to the Facility in such Billing Period by (ii) the Tons of County Waste delivered to and disposed of at the Landfill

or other appropriate disposal facility, by the County, and by (iii) 0.74;

(b) The disposal charge for Bypassed Waste delivered to and disposed of by the County at the Landfill or, if the Landfill is unavailable and disposal is accomplished at an alternate location, the then applicable disposal charge at such alternate location; and

(c) All other incremental direct costs increases incurred by the County.

The County shall provide documentation equivalent to Cost Substantiation to the Company for paragraphs (a), (b) and (c) above.

To the extent the Company utilizes the transfer capacity of the Facility for purposes of transferring County Waste to the Landfill for disposal by the Company and the Company was otherwise obligated to accept and Process such County Waste at the Facility, such transferred County Waste shall be Bypassed Waste for purposes of this Agreement. If the County disposes of such transferred County Waste at the Landfill or, in the event the Landfill is unavailable, at an alternate disposal location, Section 6.07(a)-(c) shall apply.

6.08 Service Fee Increase Limitation.

(a) Application of this Section. If, due to the occurrence of an Unforeseen Circumstance, (i) a Work change is required during construction or (ii)(A) the Facility is unable to



Process the Guaranteed Tonnage or meet the other performance guarantees of the Full Acceptance Standard, and (B)(1) the Facility cannot be repaired, reconstructed, or completed, or (2) the Facility cannot be repaired, reconstructed or completed within the period covered by business interruption insurance, or (3) the cost of such repair, reconstruction or completed will exceed insurance or condemnation proceeds available therefor (the occurrence of either (i) or (ii) is hereinafter referred to as a "Triggering Event"), the Company and the County will proceed in accordance with this Section. Upon the occurrence of a Triggering Event that would not permit the repair, reconstruction or completion of the Facility, would increase the Service Fee above the Service Fee Increase Limitation or would cause a delay in performance that exceeds the period covered by business interruption insurance, this Section 6.08 permits the County to terminate this Agreement or to accept a reduced level of Processing service combined with the use of alternate disposal methods and continue under this Agreement. The Company shall notify the County of the occurrence of a Triggering Event within ten (10) Days (the "First Notice").

(b) Determination of Effect of Triggering Event. (i) The Company shall determine whether or not the Facility can be repaired, reconstructed or completed (A) so that it can Process the Guaranteed Tonnage and meet the other performance guarantees of the Full Acceptance Standard or (B) so

that it can Process a lesser amount that is greater than the tonnage guaranteed at the Minimal Acceptance Standard and meet the other performance guarantees of the Minimal Acceptance Standard or, as applicable, the Substituted Acceptance Standard (the "Minimal Repair Standard"). The Company shall notify the County of its determination not more than seventy (70) Days following the date of the First Notice (the "Second Notice"). If the Facility cannot be repaired, reconstructed or completed to the Minimal Repair Standard, the Second Notice shall state the Tons which the Facility will be capable of Processing and the performance guarantees it will be able to meet.

(ii) If the Second Notice states that the Facility can be repaired, reconstructed or completed so that it can meet the Minimal Repair Standard, the Second Notice shall also set forth:

(A) the effect on the Company's guarantees pursuant to Schedules 5 and 11 and the amount of Acceptable Waste that the Facility will be capable of Processing;

(B) the amount of any increase or decrease in the Facility Price and in the Service Fee as a result of the Triggering Event;

(C) the aggregate increase in the Service Fee since the first Billing Period as a result of the Triggering Event and all prior Unforeseen Circumstances (the "Aggregate Service Fee Increase");

(D) the Service Fee Increase Limitation;  
(E) the time required to repair, reconstruct or complete the Facility as a result of the Triggering Event; and  
(F) if this Section applies by virtue of Section 2.06, the additional items specified therein.

(c) Minimal Repair Standard Not Possible. If the Second Notice states that in the reasonable engineering judgment of the Company the Facility cannot be repaired, reconstructed or completed so that it can meet the Minimal Repair Standard, the County on or after the Acceptance Date shall elect:

(i) to have the Company dispose of County Waste up to the Guaranteed Tonnage by utilizing the available capacity of the Facility including the transfer capacity and/or use such alternate disposal methods as the County and the Company shall mutually agree, and the obligations of the County and the Company shall be governed by Section 6.06, provided that the Service Fee Increase Limitation shall no longer apply; or

(ii) to terminate this Agreement by written notice to the Company without further liability except to pay the Trustee a termination fee equal to (x) the outstanding Allocable Bonds less (y) an amount equal to the product of (1) the Fair Market Value of the Facility on such date multiplied by (2) the fraction in the definition of Allocable Bonds. The County, with respect to such amount of Allocable Bonds, shall have the option, to the extent permitted by law, to (1) defease such amount of

outstanding Allocable Bonds or (2) purchase such amount of outstanding Allocable Bonds; provided that the County shall pay the termination fee within three hundred sixty-five (365) Days following the later of the date of the Second Notice or the Acceptance Date or the County shall be deemed to have elected to proceed pursuant to clause (i) above.

(d) Repair or Reconstruction Mandatory. If (A) the Second Notice states that the Facility can be repaired, reconstructed or completed so that it can meet the Minimal Repair Standard and (B)(i) the Aggregate Service Fee Increase is not greater than the Service Fee Increase Limitation and (ii) the time required for repair, reconstruction or completion is no longer than the period covered by business interruption insurance, then (x) the Company shall repair or reconstruct the Facility, (y) subject to the provisions of Section 6.09, the Facility Price, the Pass Through Costs and the Service Fee shall be increased or decreased by the amounts set forth in the Second Notice and (z) the adjustments in Section 2.06 shall be made.

(e) Repair or Reconstruction Optional. (i) If (A) the Second Notice states that the Facility can be repaired, reconstructed or completed so that it can meet the Minimal Repair Standard and (B)(1) the Aggregate Service Fee Increase is greater than the Service Fee Increase Limitation, or (2) the time required for such repair, reconstruction or Completion is longer than the period covered by business interruption insurance, then

the County may approve the increase in the Service Fee and the time to repair, reconstruct or complete set forth in the Second Notice and direct the Company to repair, reconstruct or complete the Facility by written notice delivered to the Company within thirty (30) Days following the date of the Second Notice (the "County's Direction").

(ii) If the County delivers the County's Direction within (30) Days following the date of the Second Notice, (x) the Company shall repair or reconstruct the Facility, (y) subject to the provisions of Section 6.09, the Facility Price, the Pass Through Costs and the Service Fee shall be increased or decreased by the amounts set forth in the Second Notice, and (2) the adjustments in Section 2.06 shall be made.

(iii) If the County shall not deliver the County's Direction within thirty (30) Days following the date of the Second Notice, the Company shall notify the County within sixty (60) Days following the date of the Second Notice (the "Third Notice") that it will:

(A)(1) repair, reconstruct or complete the Facility, (2) increase the Facility Price by the amount set forth in the Second Notice and (3) increase the Service Fee by an amount not exceeding the Service Fee Increase Limitation less the aggregate increase in the Service Fee as a result of all prior Unforeseen Circumstances; or

(B) not repair, reconstruct or complete the Facility.

(iv) If the Third Notice states that the Company will not repair, reconstruct or complete the Facility, the County shall elect:

(A) to have the Company dispose of County Waste up to the Guaranteed Tonnage by utilizing the available capacity of the Facility including the transfer capacity and/or use such alternate disposal methods as the County and the Company shall mutually agree, and the obligations of the County and the Company shall be governed by Section 6.06; provided that the Service Fee Increase Limitation shall no longer apply; or

(B) to terminate this Agreement by written notice to the Company without further liability except to pay a termination fee equal to the outstanding Allocable Bonds less an amount equal to the Fair Market Value of the Facility on such date multiplied by the fraction in the definition of Allocable Bonds. The County, with respect to such amount of Allocable Bonds, shall have the option, to the extent permitted by law, (i) to defease the outstanding Allocable Bonds or (ii) to purchase the outstanding Allocable Bonds; provided that the County must pay the termination payment within three hundred sixty-five (365) Days following the later of the date of the Third Notice or the Acceptance Date or the County shall be deemed to have elected to proceed pursuant to clause (A) above.

(f) Purchase or Defeasance of Allocable Bonds. In the case of Sections 6.08(c)(ii) and 6.08(e)(iv)(B) with respect to defeasing or purchasing Allocable Bonds, this Agreement will terminate, effective as of the date set forth in the County's notice of election pursuant to Section 6.08(c) or (e)(ii) upon payment by the County of the amount in accordance with Section 8.07.

(g) Application of Service Fee Increase Limitation.

(i) Unforeseen Circumstance Costs Substantiation. The Company shall provide the County with Cost substantiation for the amount of any increase in the Facility Price or the Service Fee, including any capital expenditures and increases in operating costs and/or Pass Through Costs, resulting from the application of this Section 6.08. Any such increase shall be based on the net increase in cost to the Company resulting directly or indirectly from any such capital expenditure. The County shall have the option to request the Company to furnish a fixed price for any such interpolated capital expenditure equal to the direct and indirect cost of such capital expenditure plus ten (10) percent, in which case the increase in the Service Fee shall be calculated on that basis.

(ii) Insurance Proceeds. If in any Billing Period as the result of the occurrence or continuance of an Unforeseen Circumstance, proceeds of any insurance required

pursuant to Schedule 7 of this Agreement to be maintained by the Company pursuant to this Agreement shall be available to the Company, the Service Fee payable in such Billing Period shall be reduced by the amount of such proceeds.

(iii) Retroactive Service Fee

Increase. If, (A) the Company has elected to proceed pursuant to Section 6.08(e)(iii)(A), and (B) in a subsequent Billing Period the Service Fee payable is less than the maximum Service Fee that would be allowable by application of the Service Fee Increase Limitation, then the Service Fee for such Billing Period shall be increased, up to the amount permitted by the Service Fee Increase Limitation during such Billing Period, by an amount up to the aggregate amount of all previous Service Fee increases absorbed by the Company and not previously recovered hereunder.

(iv) Accounting. For purposes of computing the Service Fee Increase Limitation, non-capitalizable Unforeseen Circumstance costs borne by the County together with interest at the overdue payment rate, or the actual rate if financed by the County, shall be amortized over the remaining term of this Agreement even though payable by the County in the Billing Year incurred.

6.09 Additional Financing for Repair, Reconstruction or Completion.

(a) Cost of Projects. The cost of (i) any repair, reconstruction or Completion of the Facility pursuant to



Section 2.06 or 6.08(d) or (e) or (ii) of any Work change or alteration pursuant to Sections 2.04(a), (b) or (c), 2.05 or 2.07, shall be paid first from the proceeds of any applicable insurance required to be maintained pursuant to Section 7.03 and any condemnation proceeds or awards available therefore, and any remaining balance shall be paid from Pro Rata Equity Capital and the proceeds of additional Bonds or other additional financing pursuant to Section 6.09(b) or (c); provided that the Company shall not be required to contribute Pro Rata Equity Capital to any Work change or alteration required as a result of County Fault.

(b) Additional Bonds. (i) If (A) the Facility is to be repaired, reconstructed or completed in accordance with Section 2.06 or Section 6.08(d) or (e) or (B) the Company has agreed to undertake a Work change or alteration pursuant to Sections 2.04(a), (b) or (c), 2.05 or 2.07, and with respect to (A) and (B), to the extent other amounts are not available to pay the cost of such repair, reconstruction, completion, Work change or alteration, the Company shall request the Authority to issue Bonds in an amount sufficient to pay the cost of such repair, reconstruction or completion less the Pro Rata Equity Capital with respect to such cost and to make the proceeds of such funds available to the Company upon terms and conditions similar to those contained in the Indenture.

(ii) The term of such Bonds shall not be less than the lesser of (A) the useful life of the assets acquired by such additional capital investment or (B) the then remaining useful life of the Facility, as improved, and debt service on such Bonds shall be substantially level in each year.

(c) Alternative Financing. (i) In the event that the Authority is prohibited by applicable law from issuing Bonds, the Company shall use all reasonable efforts to arrange debt financing for such construction which debt financing shall have a term of not less than the lesser of (A) the useful life of the assets acquired by such capital investment or (B) the then remaining useful life of the Facility, as improved, and shall be secured by such interest in the Facility and the revenues therefrom as may be permitted by the Indenture, and debt service on such financing shall be substantially level in each year. If the Company arranges such debt financing, the Service Fee shall be increased subject to the provisions of Section 6.08, if applicable, by an amount sufficient to pay, when due, the principal of and the premium, if any, and interest on such debt financing.

(ii) In the event that the Company is unable to arrange such debt financing, the Company may, in its sole discretion, elect to provide an equity contribution to pay the cost of such repair, reconstruction or completion. If the Company provides an equity contribution to pay the cost of such

repair, reconstruction or Completion, the Service Fee shall be increased, subject to the provisions of Section 6.08, by the amount necessary to compensate the Company for such contribution at a mutually agreeable rate.

(iii) To the extent alternative financing is provided pursuant to Section 6.09(c), the term "Bonds" as used in Section 6.08(f), 8.04, 8.05 and as used in determination of the definition of Allocable Bonds shall be deemed to include such alternative financing for purposes of determining the parties' obligations upon termination.

(d) Survival. This Section 6.09 shall survive the termination or expiration of the term of this Agreement.

#### ARTICLE VII - FURTHER AGREEMENTS

7.01 Licenses, Approvals and Permits. The County shall provide all such cooperation as may reasonably be requested by the Company in connection with obtaining in a timely manner the licenses, approvals and permits to be obtained by the Company as set forth in Schedule 19, which Schedule 19 is not all inclusive. The Company shall use all reasonable efforts to obtain all permits, licenses, and approvals necessary for the operation of the Facility in an expeditious manner.

7.02 Company's Activities. The Company agrees that until the termination or expiration of the term of this Agreement, it shall operate and maintain the Facility in

accordance with good engineering standards pertaining to Mass Burn, steam and electric generating Resource Recovery facilities and shall operate its business in accordance with sound and efficient engineering and business practices and that it shall use, consistent with its long-term operating and maintenance requirements, reasonable efforts to maximize Recovered Resources revenues generated by the Facility.

7.03 Insurance. The Company shall obtain and maintain to the extent available in the insurance marketplace (and the Company and the County shall use their best efforts, mutually, to determine the availability and cost of such insurance) the insurance with respect to the construction, start up, Acceptance Testing and operation of the Facility in such amounts, forms and with such deductible limits as are provided in Schedule 7. The Company shall pay for the cost of the premium for insurance during the construction, start up and Acceptance Testing period as part of its Facility Price, or, if payable by the County, as an adjustment to the Facility Price, all as provided in Schedule 7. On and after the earlier of the Scheduled Acceptance Date or the Acceptance Date, the Company shall pay for the cost of the premium for insurance as part of the Service Fee, or, if payable by the County, as a Pass Through Cost, all as provided in Schedule 7. Any deductible amounts from insurance proceeds payable during the term of this Agreement shall be paid as provided in Schedule 7. The Company and the County may mutually

agree to modify Schedule 7 during the term of this Agreement, which modification shall not be deemed to be an amendment to this Agreement.

7.04 Change in Federal Tax Law. (a) The County, under the terms of this Agreement, is not responsible for any change in tax law occurring after the Construction Date, including errors by Company's tax counsel or accountant, changes in the Internal Revenue Code of 1986, as amended (the "Code"), or in regulations under existing provisions of such Code or the Internal Revenue Code of 1954, as amended, or changes by the Internal Revenue Service or U.S. Treasury Department in interpretation(s) of existing tax laws which occur after the Construction Date.

(b) Before the Construction Date, and after the Contract Date, the Company's Equity Capital shall be reduced for a change in the Code which reduces the Company's tax benefits in accordance with the following formula:

Tax benefits under  
Internal Revenue Code  
as amended

X Equity Capital

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Tax benefits under  
Internal Revenue Code  
before amendment.

The tax benefits taken into consideration shall be the investment tax credit, depreciation and deductions for construction period interest. Any other applicable benefits shall be taken into account on a demonstration by the Company that changes in such benefit impact its return on investment in

the Facility. The timing of each deduction or credit shall be calculated and then discounted at a 10 percent rate to the Construction Date. For purposes of the calculation a 46 percent tax rate shall be assumed.

In no event shall the Equity Capital be reduced by an amount in excess of 50 percent. Because the certain provisions of H. R. 3838, as reported by the Committee on Ways and Means on December 7, 1985, or provisions equivalent in tax benefits, have been enacted and the County executed the Original Agreement before December 5, 1986, the Company's Equity Capital shall be 20% of the Facility Price.

7.05 Equal Employment Opportunity.

The Company will use its best efforts to ensure that minority business enterprises shall have the maximum practicable opportunity to compete for subcontract work under this program. The Contractor selected will be required to conform to all applicable federal, State and County directives respecting Equal Employment Opportunity programs.

7.06 Change in Law Causing Increased Service Fee. The Company agrees that, upon the request and at the expense of the County, it shall take such steps as are necessary to pursue a modification or appeal of any Change in Law which causes the Service Fee to increase.

7.07 No Interference with Facility. Upon termination of this Agreement pursuant to Sections 6.08(f), 6.08(c)(iii) or

8.05(c), the County shall not enact ordinances or regulations which restrict or impede deliveries of waste to the Facility, but this provision shall not prevent the County from exercising its sovereign powers to protect the health and safety of the County or to implement County waste management plans adopted pursuant to Pennsylvania law.

#### ARTICLE VIII - DEFAULT AND TERMINATION

8.01 Remedies for Breach. The remedies available for the parties on the occurrence of an Event of Default shall be governed by this Article VIII.

8.02 Events of Default by Company. The following shall constitute Events of Default on the part of the Company:

(a) persistent and repeated failure of the Company to timely perform any material obligation under this Agreement except the Events of Default described in Section 8.02(b), (c) or (e); provided, that the failure of the Facility to operate at the Full Acceptance Standard or the actual standard at which the Facility was accepted shall not be an Event of Default if (i) no Event of Default described in paragraph (b) of this Section 8.02 shall have occurred, and (ii) the Company is paying when due all damages required by Article VI;

(b) the delivery to the Landfill, over any period of twenty-four (24) consecutive months after the Acceptance Date,

of Bypassed Waste in an amount equal to or greater than 93,000 Tons;

(c) the failure of the Company to pay amounts owed to the County under this Agreement within sixty (60) Days following the time they become due and payable, giving due regard to Section 9.22;

(d) (i) the Company's being or becoming insolvent or bankrupt or ceasing to pay its debts as they mature or making an arrangement with or for the benefit of its creditors or consenting to or acquiescing in the appointment of a receiver, trustee or liquidator for a substantial part of its property, or (ii) a bankruptcy, winding up, reorganization, insolvency, arrangement or similar proceeding instituted by or against the Company under the laws of any jurisdiction, which proceeding has not been dismissed or stayed within ninety (90) Days, or (iii) any action or answer by the Company approving of, consenting to, or acquiescing in, any such proceeding, or (iv) the levy of any distress, execution or attachment upon the property of the Company or the Parent which shall substantially interfere with its performance hereunder.

8.03 Events of Default by County. The following shall constitute Events of Default on the part of the County:

(a) persistent and repeated failure of the County to timely perform any material obligation under this Agreement, except the Event of Default described in Section 8.03(b);



(b) failure of the County to pay amounts owed to the Company under this Agreement within sixty (60) Days following the time they become due and payable, giving due regard to Section 9.22; or

(c) (i) the County's being or becoming insolvent or bankrupt or ceasing to pay its debts as they mature or making an arrangement with or for the benefit of its creditors or consenting to or acquiescing in the appointment of a receiver, trustee or liquidator for a substantial part of its property, or (ii) a bankruptcy, winding up, reorganization, insolvency, arrangement or similar proceeding instituted by or against the County under the laws of any jurisdiction, which proceeding has not been dismissed or stayed within ninety (90) Days, or (iii) any action or answer by the County approving of, consenting to, or acquiescing in, any such proceeding, or (iv) the levy of any distress, execution or attachment upon the property of the County which shall substantially interfere with its performance hereunder.

#### 8.04 Remedies of the County.

(a) The County and the Company agree that the sole remedy for an Event of Default under Section 8.02(a) hereof where the Facility is capable of Processing Solid Waste shall be a suit seeking specific performance of this Agreement, and each party agrees that with respect to such actions brought by the County against the Company, that the award of damages at law is

not an adequate remedy for an Event of Default under Section 8.02(a) hereof, or the equivalent of the performance of the Company's obligations hereunder; provided, however, that this Section 8.04(a) shall not be construed to lessen the County's rights or the Company's obligations under this Agreement, including the County's right to damages or payments as specified in this Agreement.

If, within a period of thirty (30) Days after the Company shall have received notice from the County that an Event of Default has occurred under Section 8.02(b), (c) or (d), such notice describing in reasonable detail the nature of the Event of Default, the Company has neither remedied, nor has commenced and continued to pursue with due diligence a remedy for any such Event of Default, nor has commenced an appropriate proceeding to dispute the existence of an Event of Default, the County may terminate this Agreement upon sixty (60) Days prior notice to the Company unless such Event of Default is cured within such sixty (60) Day period.

An Event of Default of the character described in Section 8.02(d) hereof shall not require notice by the County as herein above provided.

(b) If this Agreement is terminated by the County pursuant to Section 8.04(a), the Company shall pay the County, as liquidated damages and not as a penalty, an amount equal to the net present value of the cost to the County over the remaining

term of the Agreement to dispose of the County Waste which would have been disposed of by the Company hereunder but for its default and termination less the net present value of the fees which would have been due hereunder for such service, but in no event shall the total liquidated sum exceed an amount equal to (x) the original amount of the Bonds divided by (y) 25 and multiplied by (2) the remaining number of years in this Agreement as of the date of termination.

(c) In the case of Section 8.04(b), this Agreement shall terminate upon the payment by the Company of the liquidated damages in accordance with Section 8.07.

(d) This Section 8.04 shall survive the termination of this Agreement.

#### 8.05 Remedies of the Company.

(a) The County and the Company agree that the sole remedy for an Event of Default under Section 8.03(a) hereof shall be a suit seeking specific performance of this Agreement, and each party agrees that with respect to such actions brought by the Company against the County, that the award of damages at law is not an adequate remedy for an Event of Default under Section 8.03(a) hereof, or the equivalent of the performance of the County's obligations hereunder. If, within a period of thirty (30) Days after the County shall have received notice from the Company that an Event of Default described in Section 8.03(b) has occurred, describing in reasonable detail the nature of the

Event of Default, the County has neither remedied, nor has commenced and continued to pursue with due diligence a remedy for any such Event of Default, nor has commenced an appropriate proceeding to dispute the existence of an Event of Default, the Company may terminate this Agreement upon sixty (60) Days prior notice to the County unless such Event of Default is cured within such sixty (60) Day period. An Event of Default described in Section 8.03(c) hereof shall not require notice by the Company as hereinabove provided.

(b) If this Agreement is terminated pursuant to this Section 8.05, the County shall pay the Company, as liquidated damages and not as a penalty, an amount equal to the net present value of the revenues which would have been paid by the County over the remaining term of the Agreement less the net present value of revenues which the Company may reasonably expect to receive over such term in place of County revenues (reducing such expected revenues by reasonably expected landfill costs, if any, in excess of the costs which would have been incurred under Article V hereof by the Company if the waste had been County Waste) and cost reductions resulting from the non-delivery of waste to replace County Waste (such waste to replace County Waste is referred to herein as "Replacement Waste"), but in no event shall such liquidated sum exceed, when added to any liquidated damages due to the Company pursuant to paragraph (2) below, the limit set forth in paragraph (2) below. In the event that such

liquidated sum is a negative number, the absolute value of such negative number shall be applied as a credit to reduce any damages assessed against the County under paragraph 2 below.

(2) In addition, if this Agreement is terminated pursuant to this Section 8.05, the County shall pay the Company, as liquidated damages and not as a penalty, an amount equal to the net present value of costs for disposal of Process Residue from non-County Waste (excluding Replacement Waste) which could be reasonably expected to be incurred by the Company over the remaining term of this Agreement (had it not been terminated) in excess of the costs for such Process Residue which would have been paid under Article V hereof, but in no event (A) shall any portion of such incremental disposal cost of Process Residue be included in such damages except to the extent such incremental cost, when converted to its equivalent cost per ton of Acceptable Waste, exceeds the difference between a tip fee per ton of Acceptable Waste of \$60 escalated, exclusive of transportation charges (as provided in this Agreement), and the actual tip fee reasonably expected to be charged for the Acceptable Waste which will result in the Process Residue; or (B) shall the total of such liquidated sum plus any liquidated damages due to the Company pursuant to paragraph (1) above exceed an amount equal to the Allocable Bonds plus (x) the Equity Capital multiplied by the fraction used in the definition of Allocable Bonds divided by (y) 25 and multiplied by (z) the remaining years in the Agreement.

In any event, no damages shall be assessed under this paragraph with respect to the landfill costs if the County elects to continue to provide the Landfill services under the terms set forth in Article V hereof or, if due to an Unforeseen Circumstance, the County would not be obligated to provide a landfill under Article V. In addition, if landfill services described in Article V are available at a cost less than what would have been paid under Article V, the net present value of such savings shall reduce the liquidated damages assessed under the first sentence of this paragraph.

(c) This Agreement shall terminate upon the payment by the County of the liquidated damages in accordance with Section 8.07.

(d) This Section 8.05 shall survive the termination of this Agreement.

8.06 No Liability for Unforeseen Circumstances.

Neither the County nor the Company shall be liable to the other for any failure or delay in performance of any obligation under this Agreement due to the occurrence of an Unforeseen Circumstance except as specifically provided in Article VI hereof. The party whose performance under this Agreement has been affected by an Unforeseen Circumstance shall provide prompt written notice of the cessation of such Unforeseen Circumstances to the other party. Whenever an Unforeseen Circumstance shall occur, the party claiming to be adversely affected thereby shall,

as quickly as possible, eliminate the cause therefor, reduce costs and resume performance under this Agreement.

8.07 Manner of Termination Payment. All performance and payment obligations under this Agreement, including payment of the Service Fee that is due and owing, shall continue pursuant to the terms of this Agreement until this Agreement terminates and any amount accrued but unpaid prior to termination shall, if due and owing, be payable in accordance with this Section 8.07. Within ninety (90) Days following termination of this Agreement, the County and the Company shall reconcile all amounts then due and payable to each other under the terms of this Agreement. Upon reaching, as a result of such reconciliation, the total amount of the outstanding unpaid balance which the County and the Company owe the other, the County and the Company shall, within thirty (30) Days thereafter, make the final payments in complete discharge of their obligations under this Agreement, except those obligations which survive the termination of this Agreement. Payment obligations under this Section are subject to Sections 9.21 and 9.22. To the extent the County or the Company becomes liable under any Section to defease, assume or otherwise purchase the Bonds, the County or the Company, as the case may be, will make such payment to or for the benefit of the Trustee. This Section 8.07 shall survive the termination of this Agreement.

8.08 Remedies.

(a) The remedies specifically set forth in this Agreement are exclusive, and the parties waive any other remedies they may have at law or in equity; provided that either party may seek judicial enforcement of any remedy provided herein and any amounts payable hereunder. The parties agree that the provisions for damages set forth herein are intended to measure as accurately as possible the direct damages of the party entitled to such damages and are not intended to include punitive, special or consequential damages,

(b) This Section 8.08 shall survive the termination of this Agreement.

ARTICLE IX - MISCELLANEOUS

9.01 Term. Unless sooner terminated or extended in accordance with the terms hereof, this Agreement shall continue in effect until the twenty-fifth (25th) anniversary of the Scheduled Acceptance Date, or the final maturity date of the first issue of Bonds under the Indenture, whichever is later.

9.02 Assignment. This Agreement may not be assigned by either party without the prior consent of the other party, except that the Company may, without such consent, assign its interest hereunder to the Trustee as collateral for or otherwise in connection with arrangements for the financing or refinancing of all or part of the Facility. The Company may also assign its



interest without such consent to any Affiliate, successor or Parent of the Company or to any partnership of which the Company is a general partner or any joint venture of which the Company is a joint venturer, provided that the Company shall remain liable for all obligations under this Agreement, and the Company, pursuant to the Guarantee set forth in Schedule 13, fully guarantees the performance of such assignee's obligations under this Agreement. Additionally, the County may assign this Agreement, without the consent of the Company, to any validly constituted agency or authority of the County or the Delaware County Solid Waste Authority provided that the County fully guarantees the performance of such assignee's obligations under this Agreement; notwithstanding the foregoing, however, the County's obligations under the aforesaid guarantee, and its obligations under this Agreement if it does not assign this Agreement, shall be limited to payment from current revenues and shall not under any circumstances constitute "debt" within the meaning of the Local Government Unit Debt Act, Act of July 12, 1972 (P.L. 781, No. 185), as reenacted and amended on April 28, 1978 (P.L. 124, No. 52).

9.03 Arbitration.

(a) Initiation of Proceeding. To help bring about a quick and efficient resolution of engineering disputes which may arise under this Agreement at the lowest possible cost,

the parties do hereby establish this procedure to be in existence and available for use during the term of this Agreement.

(b) Good Faith Effort to Resolve Disputes. In the event the Company or the County shall not agree with respect to the performance of obligations under this Agreement, or if the Company shall undertake an action requiring approval, agreement or concurrence by the County without such approval, agreement or concurrence or if any other controversy, claim or dispute between the Company or the County shall arise regarding any other matter under this Agreement, the County and the Company shall undertake in good faith to resolve the dispute.

(c) Arbitration.

(i) If the Company and the County cannot agree within a two (2) week period of time after written notice thereof with respect to any such matter(s), such failure to agree shall be deemed a dispute and, exclusive of any other remedy, the County or the Company may, following such period, by notice to, the other party, the Consulting Engineer and the Independent Engineer bring the dispute to the Independent Engineer who shall assume exclusive jurisdiction over the dispute and shall be required to make a final binding determination, not subject to appeal, within twenty (20) Days from the receipt by the Independent Engineer and the County, or the Company, of a written request for arbitration (i) as to whether such obligations were met and (ii) as to what damages or remedies are due to the County

or the Company, if any, under the terms of this Agreement. The County and the Company shall each submit in writing a statement of its position with supporting facts and data to the Independent Engineer within ten (10) Days after receipt of written notice of the dispute being brought to the Independent Engineer.

(ii) The decision of the Independent Engineer shall be binding and not be subject to appeal if the decision by the Independent Engineer for any one item in dispute is an amount less than Two Hundred Fifty Thousand Dollars (\$250,000.00). If such a decision is greater than Two Hundred Fifty Thousand Dollars (\$250,000.00), the award of the Independent Engineer may be appealed by either party in a court of competent jurisdiction, provided that the Independent Engineer's findings of fact with respect to any matter requiring engineering judgment shall not be subject to appeal. Either party may have recourse to the courts for enforcement of the award of the Independent Engineer.

(d) Selection of Independent Engineer. On or before the Construction Date, the Independent Engineer shall be selected by the County, with the approval of the Company, and shall be placed on retainer with the retainer fees being a cost or expense shared equally by the parties. If the Company or the County have not agreed upon the selection of the Independent Engineer by the Construction Date, the Independent Engineer shall be expeditiously selected by the President of the American

Arbitration Association or his designee. The Independent Engineer shall have at all times such access to the Facility Site and the Facility and all records as are required for it to carry out its function expeditiously.

(e) Continuation of Performance. Unless otherwise agreed in writing, the Company or the County shall continue to perform their respective obligations under this Agreement during any arbitration or court proceeding.

(f) Site of Arbitration. Any proceedings held by the Independent Engineer shall be held within Delaware County, Pennsylvania.

#### 9.04 Indemnification.

(a) The Company agrees that it shall protect, indemnify, and hold harmless the County and its respective officers, members, employees and agents (the "County Indemnified Parties") from and against all acts and omissions of the Company which directly result in liabilities, actions, damages, claims, demands, judgments, losses, costs, expenses, suits, or actions; and reasonable attorneys' fees, and shall defend the County in any suit, including appeals, for personal injury to, or death of, any person or persons, or for loss or damage to property arising out of the operation of the Facility or arising out of the performance or nonperformance of the Company's obligations under this Agreement. The Company is not, however, required to reimburse or indemnify any County Indemnified Party for loss or

or the Company, if any, under the terms of this Agreement. The County and the Company shall each submit in writing a statement of its position with supporting facts and data to the Independent Engineer within ten (10) Days after receipt of written notice of the dispute being brought to the Independent Engineer.

(ii) The decision of the Independent Engineer shall be binding and not be subject to appeal if the decision by the Independent Engineer for any one item in dispute is an amount less than Two Hundred Fifty Thousand Dollars (\$250,000.00). If such a decision is greater than Two Hundred Fifty Thousand Dollars (\$250,000.00), the award of the Independent Engineer may be appealed by either party in a court of competent jurisdiction, provided that the Independent Engineer's findings of fact with respect to any matter requiring engineering judgment shall not be subject to appeal. Either party may have recourse to the courts for enforcement of the award of the Independent Engineer.

(d) Selection of Independent Engineer. On or before the Construction Date, the Independent Engineer shall be selected by the County, with the approval of the Company, and shall be placed on retainer with the retainer fees being a cost or expense shared equally by the parties. If the Company or the County have not agreed upon the selection of the Independent Engineer by the Construction Date, the Independent Engineer shall be expeditiously selected by the President of the American

claim (i) due to the negligence or willful misconduct of any County Indemnified Party or (ii) which results from the delivery, handling, processing, transportation or disposal of Hazardous Waste and/or Unacceptable Waste delivered by or on behalf of the County except to the extent that such loss or claim results from the negligence or willful misconduct of the Company or from the Company's failure to exercise due care in accordance with Section 5.03(b)(iv).

(b) The County agrees that it shall protect, indemnify, and hold harmless the Company, its partners and their affiliates, and their respective officers, members, employees agents and invitees (the "Company Indemnified Parties") from and against all negligent acts and omissions of the County which directly result in liabilities, actions, damages, claims, demands, judgments, losses, costs, expenses, suits, or actions and reasonable attorneys' fees, and shall defend the Company Indemnified Parties in any suit, including appeals, for personal injury to, or death of, any person or persons, or for loss or damage to property or arising out of the performance or nonperformance of the County's obligations under this Agreement. The County is not, however, required to reimburse or indemnify any Company Indemnified Party for loss or claim due to the negligence or willful misconduct of any Company Indemnified Party.

(c) As more fully described in Article VII herein, the Company and the County hereby waive any and every claim for recovery from the other for any and all loss or damage to each other resulting from the performance of this Agreement, which loss or damage is covered by valid and collectible insurance policies.

(d) Except for the payment obligations contained in this Agreement, neither the performance nor the nonperformance by either party or any of its Affiliates of its or their obligations under this Agreement, shall result in any liability or obligation of such party or any of its Affiliates or any of its subcontractors or suppliers to the other party to pay special, consequential, punitive, incidental or indirect damages.

9.05 Further Assurances. Each party agrees to execute and deliver any instruments and to perform any acts that may be necessary or reasonably requested in order to give full effect to this Agreement. The County shall, and shall use all reasonable efforts to provide such information, execute such further instruments and documents and take such action as may be reasonably requested by the Company and not inconsistent with the provisions of this Agreement and not involving the assumption of obligations other than those provided for in this Agreement to carry out the intent of this Agreement.

9.06 Warranties for Machinery, Equipment and Materials. The Company shall exercise all reasonable efforts to

obtain manufacturers' warranties for equipment and materials at the Facility and to assign such warranties to the County upon purchase of the Facility by the County in accordance with this Agreement. In the event of a County purchase of the Facility, the Company hereby agrees that the County shall be subrogated to all of the Company's rights and privileges under all suppliers' warranties and that if the Company shall not have, within thirty (30) Days after written notice from the County, moved to enforce its rights and privileges under any of such warranties, the County may enforce such rights as the Company would otherwise have under such warranties. This Section 9.06 shall survive the termination of this Agreement.

9.07 Industrial Property Rights. The Company shall pay all royalties and license fees relating to the design, construction and performance testing of the Facility. The Company hereby warrants that the design, construction and performance testing of the Facility and the contemplated operation of the Facility or the use of any component unit thereof or the use of any patent, patented article, machine or process, or a combination of any or all of the aforesaid, by the County or any third party shall not infringe any patent, trademark or copyright of any other third person. The Company shall defend any claim or lawsuit brought against the County of any of its directors, officers, employees or representatives for infringement of any patent, trademark or copyright relating to



the design of the Facility, or for the unauthorized use of trade secrets by reason of the design, construction or operation of the Facility, or at its option, may acquire the rights of use under infringed patents, or modify or replace infringing equipment with equipment equivalent in quality, performance, useful life and technical characteristics and development so that such equipment does not infringe, and the Company shall indemnify the County or any of its directors, officers, employees or representatives and hold each and all harmless against all liability, judgments, decrees, damages, interest, costs and expenses (including reasonable attorneys' fees) recovered against the County or any of its directors, officers, employees or representatives sustained by any or all by reason of any such actual or alleged infringement or unauthorized use. This Section 9.07 shall survive termination of this Agreement.

9.08 Representations.

(a) County's Representations. The County represents to the Company that:

(i) The County is duly organized and existing in good standing under the laws of the State and is duly qualified and authorized to carry on the governmental functions and operations as contemplated by this Agreement.

(ii) The County has the power, authority and legal right, to enter into and perform its obligations set forth in this Agreement, and the execution, delivery and performance

hereof (a) have been duly authorized by the County Council, (b) have all requisite approvals of all governmental officers or bodies, (c) do not require any consent or referendum of voters, (d) will not violate any judgment, order, law or regulation applicable to the County or any provisions of the County's charter or bylaws and (e) do not constitute a default under or result in the creation of any lien, charge, encumbrance or security interest upon any assets of the County under any agreement or instrument to which the County is a party or by which the County or its assets may be bound or affected.

(iii) This Agreement has been duly entered into and delivered and, as of the Contract Date, constitutes a legal, valid and binding obligation of the County, enforceable in accordance with its terms.

(iv) There is no action, suit or proceeding, at law or in equity, before or by any court or governmental authority, pending or, to the best of the County's knowledge, threatened against the County, wherein an unfavorable decision, ruling or finding would materially adversely affect the performance by the County of its obligations hereunder or the other transactions contemplated hereby, or which, in any way, would adversely affect the validity or enforceability of this Agreement, or any other agreement or instrument entered into by the County in connection with the transactions contemplated hereby.

(b) Company's Representations. The Company hereby represents to the County that:

(i) The Company is duly organized and existing in good standing under the laws of Pennsylvania and is duly qualified to do business wherever necessary to carry on the business and operations contemplated by this Agreement.

(ii) The Company has the power, authority and legal right to enter into and perform its obligations set forth in this Agreement, and the execution, delivery and performance hereof, (a) have been duly authorized, (b) have all requisite approval of all governmental officers or bodies, (c) will not violate any judgment, order, law or regulation applicable to the Company and (d) do not constitute a default under or result in the creation of any lien, charge, encumbrance or security interest upon any assets of the Company under any agreement or instrument to which the Company is a party or by which the Company or its assets may be bound or affected.

(iii) The Company holds, or is expressly authorized under, the necessary patent rights, licenses and franchises to construct and operate the Facility pursuant to the terms of this Agreement.

(iv) This Agreement has been duly entered into and delivered and, as of the Contract Date, constitutes a legal, valid and binding obligation of the Company, enforceable in accordance with its terms.

(v) There has been no material adverse change in the Company's ultimate Parent's minimum financial qualification criteria set forth in Schedule 20.

9.09 Relationship of the Parties. Except as otherwise explicitly provided herein, no party to this Agreement shall have any responsibility whatsoever with respect to services provided or contractual obligations assumed by any other party and nothing in this Agreement shall be deemed to constitute any party a partner, agent or legal representative of any other party or to create any fiduciary relationship between or among the parties.

9.10 Notices. Any notices or communication required or permitted hereunder shall be in writing and sufficiently given if delivered in person or sent by certified or registered mail, postage prepaid, as follows:

To the Company:

If By Hand:

Westinghouse Site Manager  
Resource Recovery Facility Site  
Front and Thurlow Streets  
Chester, PA

If By Mail:

Westinghouse Resource Energy  
Systems Division  
2400 Ardmore Boulevard  
Pittsburgh, PA 15221  
Attn: Delaware County Project Manager

To the County:

If By Hand or By Mail:

Nicholas Catania  
Delaware County Council  
Government Center Building  
Courthouse  
Media, PA 19063

Changes in the respective addresses to which such notices may be directed may be made from time to time by any party by written notice to the other party.

9.11 Waiver. The waiver by either party of a default or a breach of any provision of this Agreement by the other party shall not operate or be construed to operate as a waiver of any subsequent default or breach. The making or the acceptance of a payment by either party with knowledge of the existence of a default or breach shall not operate or be construed to operate as a waiver of any subsequent default or breach.

9.12 Modifications. The provisions of this Agreement, including the present and all future Schedules, together with the agreements incorporated by reference, shall (1) constitute the entire agreement between the parties for the operation of the Facility, and (2) be modified, unless provided herein to the contrary, only by written agreement duly executed by both parties.

9.13 Headings. Captions, headings and the Table of Contents in this Agreement are for ease of reference only and do not constitute a part of this Agreement.

9.14 Governing Law. This Agreement and any questions concerning its validity, construction or performance shall be governed by the laws of the State, irrespective of the place of execution or of the order in which the signatures of the parties are affixed or of the place or places of performance.

9.15 Counterparts. This Agreement may be executed in more than one counterpart, each of which shall be deemed to be an original.

9.16 Severability. In the event that any provision of this Agreement shall, for any reason, be determined to be invalid, illegal, or unenforceable in any respect, the parties hereto shall negotiate in good faith and agree to such amendments, modifications, or supplements of or to this Agreement or such other appropriate actions as shall, to the maximum EXTENT practicable in light of such determination, implement and give effect to the intentions of the parties as reflected herein, and the other provisions of this Agreement shall, as so amended, modified, supplemented, or otherwise affected by such action, remain in full force and effect.

9.17 Extension of this Agreement. At any time during the first Sixty (60) Days of the last Billing Year, <sup>(2017)</sup> the Company shall give notice as to whether or not it intends to continue to operate the Facility for the Processing of Acceptable Waste. If the Company intends to continue operation, the County shall have a right of first refusal to contract for an amount of the

available capacity of the Facility not exceeding the Guaranteed Tonnage and the Excess Guaranteed Tonnage at a price not to exceed the market price for such capacity and on such other terms and conditions as the parties may agree, which right of first refusal shall be deemed waived by the County unless exercised by the County in writing within sixty (60) Days following such notice. This Section 9.17 shall survive the expiration of the term of this Agreement.

9.18 Fair Market Value Option. Within sixty (60) Days following the written notice described in Section 9.17, the County may, at its option, elect to purchase at the close of business on the last day of the last Billing Year the Facility at its then Fair Market Value.

9.19 Determination of Fair Market Value of the Facility. If, pursuant to the provisions of this Agreement, the Fair Market Value of the Facility is to be determined, said value shall be the value which would be obtained for the Facility in an arm's length transaction between an informed and willing buyer under no compulsion to buy, and an informed and willing seller, under no compulsion to sell, based upon the highest and best use of the Facility utilizing generally recognized professional criteria for the appraisal of industrial property or real estate, as the same shall be specified by agreement between the Company and the County. If the Company and the County cannot agree as to the fair market value of the Facility within fifteen (15) Days of

any event requiring determination of fair market value, then said value shall be mutually determined in an appraisal prepared and delivered in the County by two disinterested MAI certified and licensed industrial property appraisers for the Facility one of which shall be appointed by the Company and the other of which shall be appointed by the County, each of which appointments shall be made within twenty-five (25) Days of the said event requiring determination of fair market value of the Facility. If the appraisers thus appointed cannot mutually agree upon the fair market value of the Facility respectively, within thirty (30) Days of the appointment of the second appraiser, said appraisers shall appoint within five (5) Days thereafter, a third disinterested, MAI certified and licensed industrial property appraiser for the Facility who shall individually, within thirty (30) Days of its appointment, determine the fair market value of the Facility or the Facility Site, respectively, in accordance with generally recognized criteria for the appraisal of industrial property. If a second appraiser shall not have been appointed within the time period herein provided, the first appraiser shall determine the fair market value of the Facility.

If the two appraisers fail to agree upon the appointment of a third appraiser within the time period herein provided, the Company and the County shall appoint a third appraiser who shall determine the fair market value in accordance with the provisions of this Section.



The appraiser, or appraisers as the case may be, shall give written notice to the parties stating the determination of fair market value and shall furnish to each party a signed copy of such determination. In the event of the failure, refusal, or inability of any appraiser or appraisers to act, a new appraiser or appraisers shall be appointed, which appointment(s) shall be made on the same manner as hereinabove provided for the appointment of the appraiser or appraisers who failed, refused or were unable to act. The expenses of the appraisal conducted in accordance with the provisions of this paragraph shall be borne equally by the Company and the County.

9.20 Purchase by the County. If the County elects to purchase the Facility pursuant to any provision of this Agreement:

(a) The Company must transfer title free and clear of all liens and encumbrances other than the lien of the Indenture with respect to any Bonds as to which payments are being made by the County.

(b) The Company shall (i) grant to the County a paid up, royalty free nonexclusive license to any patents, trademarks, copyrights and trade secrets and "shop rights" as necessary for and limited to, the operation of the Facility; (ii) supply at their fair market price any propriety components needed for continuing the operation of the Facility; (iii) assign for the benefit of the County all maintenance and supply contracts

(except such contracts as may be with affiliates of the Company);  
(iv) assist the County by providing, without charge, initial training of personnel as may be reasonably necessary to enable the new operator to continue with the operation of the Facility;  
(v) provide nontechnical design, construction and operational information, whether or not proprietary, including technological specification, necessary for operation, maintenance and repair of the Facility; and (vi) grant to the County access to the Facility for the purpose of operating and maintaining the Facility.

(c) If the County elects to purchase the Facility prior to the Acceptance Date (i) the Company shall make available to the County and its representatives all complete design information including accurate drawings and specifications, construction and operation, technical and non-technical information, whether or not proprietary, and all patent, trademark and copyright licenses and permits and licenses required by the County or by a third person to complete and operate the Facility for Acceptable Waste disposal services; provided that the Company shall not be required to disclose any proprietary information so long as the Company is willing to make equipment related to such proprietary information available to the County for use in the Facility on reasonable terms and conditions, and (ii) the County's right of termination shall extinguish its rights and remedies against the Company's surety(ies) to complete or contract for completion of the Work.

(d) The Facility Site Lease shall be assigned by the Company to the County simultaneously with a purchase of the Facility and all Recovered Resources agreements shall be assigned to the County without additional compensation to the Company.

9.21 Interest on Overdue Payments. All payments to be made under this Agreement outstanding after the applicable due, date shall bear interest at the maximum rate permitted by law of the State, if applicable, or at the prime rate of the The Chase Manhattan Bank, N.A., whichever rate is lower.

9.22 Payment Disputes. If any party shall dispute an amount owing to the other party, such party shall:

(i) give notice to the other party of such disputed amount together with sufficient information to allow the other party to understand the nature of the dispute, which notice shall be prepared in the same manner as Cost Substantiation and shall be delivered on or before the due date of the amount disputed; and

(ii) pay all disputed and undisputed amounts on the due date. Interest at the rate specified in Section 9.21 shall accrue from the original due date on disputed amounts, or the portions thereof, to the party which is ultimately determined to be entitled to such disputed amount, or any portions of such disputed amounts.

9.23 Liability of Officers and Employees. No commissioner or director, nor any officer, agent, representative

or employee of either party shall be charged personally by the other or held contractually liable thereto under any term or provision of this Agreement, because of either party's execution or attempted execution hereof or because of any breach or alleged breach thereof; provided, however, that all Persons remain responsible for any of their own criminal actions.

9.24 Sovereign Immunity. The County, to the extent permitted by law, hereby irrevocably waives and renounces any and all rights it may have to the defense of sovereign immunity and agrees not to raise such defense to any claim, suit or proceeding based on or arising out of this Agreement which is brought against the County by the Company.

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be executed by their duly authorized representatives as of the day and year first above written.

WESTINGHOUSE ELECTRIC CORPORATION

Attest:

James T. Cronin  
Name: JAMES T. CRONIN  
Title: PROJECTS MANAGER

By J. W. Bennett  
Name: GENERAL MANAGER  
Title: WESTINGHOUSE PEST

(Seal)

DELAWARE COUNTY, PENNSYLVANIA

Attest:

Joyce A. Lamont  
Name: Joyce A. Lamont  
Title: County Clerk

By Edwin B. Erickson  
Name: Edwin B. Erickson  
Title: Chairman  
By Nicholas Flanagan  
Name: Nicholas F. Flanagan  
Title: Vice Chairman

APPENDIX K  
COVANTA ENERGY CORPORATION  
40 LANE ROAD, CN 2615  
FAIRFIELD, NJ 07007-2615

Anthony J. Orlando  
President and Chief Executive Officer  
Phone (973) 882-7277  
Fax (973) 882-7220  
aorlando@covantaenergy.com

June 27, 2005

Mr. Joseph Vasturia  
CEO and Chairman  
Delaware County Solid Waste Authority  
Rose Tree Park - Hunt Club  
1521 North Providence Road  
Media PA 19063-1039

DELAWARE COUNTY  
SOLID WASTE AUTHORITY  
JUL -1 P12:00

Dear Mr. Vasturia,

We are pleased to inform you on Friday, 6/24, Covanta completed its acquisition of the WTE and related businesses of American Ref-Fuel Holdings Corp. This acquisition includes Ref-Fuel's six WTE facilities in the northeast and TransRiver LLC, its waste procurement company.

With this transaction now complete, we wanted to let you know how much we are looking forward to working with you and the Delaware County Solid Waste Authority. We are very confident in Covanta's ability to be an excellent partner with the Delaware County Solid Waste Authority, and we are excited about our prospects for a productive and mutually beneficial relationship.

We are committed to continue and enhance the tradition of outstanding service for which both Covanta and American Ref-Fuel have long been known. To that end we are pleased the existing plant management staff will continue working to serve your needs. And the outstanding facility management team will immediately be supported by our regional and corporate managers who have a wealth of knowledge in the waste-to-energy industry.

By combining the best each organization has to offer, we improve our ability to meet our over-arching commitment to provide you, and the rest of our client communities, with world class waste disposal and energy generation services in a safe, reliable, environmentally sound and cost-effective manner.

We at Covanta are looking forward to serving you. And I am personally eager to meet you on June 30, 2005 at your office to introduce the Covanta organization. In the meantime, if you have any questions, please don't hesitate to call.

Sincerely,





APPENDIX L  
**pennsylvania**  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
SOUTHEAST REGIONAL OFFICE

DELAWARE COUNTY  
SOLID WASTE AUTHORITY

December 2, 2013

13 DEC -5 A8:52

Mrs. Sue Cordes  
Recycling Coordinator  
Delaware County Solid Waste Authority  
Rose Tree Park, Hunt Club  
1521 North Providence Road  
Media, PA 19063

Dear Mrs. Cordes:

In the course of reviewing the Delaware County Municipal Solid Waste Management Plan, it has come to the Department of Environmental Protection's (DEP) attention that the County's contract with Covanta Energy expires in 3 years. We would like to take this opportunity to remind the County of its obligations under Act 101.

Section 502(f) of Act 101 requires that a county use a "fair, open, and competitive" process for selecting among alternative waste management programs or facilities. The county plan must provide DEP with "reasonable assurances" that the county has utilized a fair, open, and competitive process for selecting among alternatives suggested to the county during its planning process. Please advise how the County intends to proceed, in light of the contract expiration set forth above. If the County intends to enter into a contract or contracts to replace the current contract with Covanta, please explain how the County will provide the required "reasonable assurance" with regard to the related selection process.

Thank you for your attention to this matter.

Sincerely,

Ann L. Ryan  
Environmental Protection Specialist  
Waste Management

cc: Mr. Ligons, DEP  
Mr. Holley, DEP  
Re 30 (eh13wm)329-1

# APPENDIX M

LAW OFFICES  
**MICHAEL F. X. GILLIN & ASSOCIATES**  
A PENNSYLVANIA PROFESSIONAL CORPORATION

MICHAEL F. X. GILLIN  
GEORGE P. CORDES  
STEPHEN V. BOTTIGLIERI\*  
JOSEPH P. D'ALONZO II  
DAVID D. DIPASQUA\*\*  
\*ALSO MEMBER NJ BAR  
\*\* L.L.M. IN TAXATION

FRANCINE HOFT-AUCLAIR,  
PRE-LITIGATION SPECIALIST

230 N. MONROE STREET  
P.O. BOX 8010  
MEDIA, PENNSYLVANIA 19063  
(610) 565-2211

DELAWARE COUNTY  
SOLID WASTE AUTHORITY  
WEB: WWW.MGILLINLAW.COM

13 DEC 16 P1:10 FAX (610) 565-1846

December 13, 2013

Ann L. Ryan  
Environmental Protection Specialist  
Pennsylvania Department of Environmental Protection  
2 East Main Street  
Norristown, PA 19401-4915

**RE: Delaware County Municipal Solid Waste Management**

Dear Ms. Ryan:

Your letter of December 2, 2013 was forwarded to me for a response. The Solid Waste Authority is well aware of the expiration of the Covanta contract in three (3) years. We have been in negotiations earlier this year with Covanta. However, Covanta has restructured its organization and is not ready to proceed with negotiations at this time. In addition, the contract between the Authority and Covanta grants us the right of first refusal to purchase the plant in 2017.

In addition to the contract with Covanta being extended, we are also exploring alternative waste reduction and recycling concepts. There are a number of emerging prospects which we intend to evaluate. The authority does not expect to enter into any long term contractual obligations at this time.

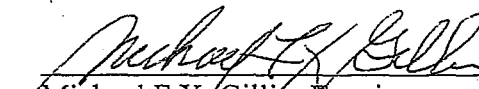
The Solid Waste Authority recognizes what legal requirements have to be met. The authority also recognizes the legal responsibilities it has to its constituents to assure that Delaware County Municipal Solid Waste is disposed of legally and by environmentally sound means. Therefore, it would be premature for the authority to set forth its intent at this time. I trust this satisfies your concerns.

If you have any questions, please do not hesitate to contact me.

Very truly yours,

**MICHAEL F.X. GILLIN & ASSOCIATES, P.C.**

By:

  
Michael F.X. Gillin, Esquire  
Solicitor, DCSWA

MFxG/lmo

cc: Joseph W. Vasturia  
Susan Cordes





**pennsylvania**  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
SOUTHEAST REGIONAL OFFICE

June 27, 2014

Mrs. Sue Cordes  
Recycling Coordinator  
Delaware County Solid Waste Authority  
Rose Tree Park, Hunt Club  
1521 North Providence Road  
Media, PA 19063

Dear Mrs. Cordes:

In the course of reviewing the Delaware County (County) Municipal Solid Waste Management Plan official submission, the Department of Environmental Protection (DEP) has determined that further information is needed before a final decision on the plan can be made.

DEP's review indicates that the plan does not meet the requirements of showing capacity assurance. The plan states that Rolling Hills Landfill has capacity for the next 10 years. However, the plan states that all waste will be processed at the Covanta Delaware Valley (Covanta) incinerator prior to the resulting ash being disposed of at the landfill. The current processing contract with Covanta expires in 2017 and the plan does not include any provision for incineration of the waste prior to disposal after that date. If the County wishes to use Rolling Hills Landfill to demonstrate capacity assurance for the full 10 year period, evidence that the landfill has capacity for the next 10 years without incineration after 2017 must be shown. In addition, there must be a plan in place should Covanta become inaccessible.

Should the County wish to reduce the bulk of the waste via processing prior to final disposal after expiration of the contract with Covanta in 2017, the County must show that the process of selecting the facility or facilities to provide such processing meets the requirements of being fair, open, and competitive. This would require the County to submit a substantial plan revision once the current contract with Covanta ends in 2017.

If the County wishes to revise the current plan submission, the revisions must be submitted to DEP by July 9, 2014. The County also has the option of withdrawing its current submission and resubmitting it when the issues noted above have been addressed. Failure to address these issues will result in the denial of the plan.

If you have any questions, please contact Ms. Ann Ryan by e-mail at [aryan@pa.gov](mailto:aryan@pa.gov) or by telephone at 484.250.5755.

Sincerely,

Calvin E. Ligons  
Solid Waste Supervisor  
Waste Management

Re 30 (eh14wm)177

14 JUN 30 AM 1:04  
DELAWARE COUNTY  
SOLID WASTE AUTHORITY

APPENDIX O

Affidavit of Landfill Capacity

I, Joseph W. Vasturia, P.E., being duly sworn according to law disposes and state the following:

- 1) that I am a registered Professional Engineer in the State of Pennsylvania (PE008936E);
2) that I have served as Chairman of the Board of the Delaware County Solid Waste Authority (DCSWA) since 1984;
3) that I have served as the Chief Executive Officer of the DCSWA since January 1996;
4) that I certify and attest that Rolling Hills Landfill has ample capacity for Delaware County's Municipal Solid Waste (MSW) for the ten year period ending 2023;
5) that I certify that the landfill has capacity of 921,600 tons, annually;
6) that as referenced on Table 3-3, the total MSW generated over the last 5 years from Delaware County averaged 368,585 tons. Over that same time period an average of 841,192 tons of Out-of-County MSW was processed at Covanta;
7) that as referenced on Table 2-2, once incinerated, the combination of In and Out-of County ash over the same five years was 382,667 tons which was then transported to Rolling Hills Landfill as listed on Table 2-2;
8) in the event that Covanta ceased operation, the Out-of-County MSW currently accepted at Covanta and transported to Rolling Hills Landfill would be restricted and the acceptance of any Out-of-County waste accepted at the Landfill would be restricted;
9) if the County should wish to reduce the bulk of waste via processing prior to the final disposal after expiration of the contract with Covanta in 2017, the County will select the facility or facilities to provide such processing in a fair, open and competitive bid process as required by the Municipalities Authorities Act (53 P.A.C.Sa.5601 et al).

As a result of these findings, I attest that if Delaware County is forced to transport all of our MSW to Rolling Hills Landfill directly, Delaware County will possess more than enough Landfill Capacity to last the length of the current SWMP.

Handwritten signature of Joseph W. Vasturia, P.E., CEO

Sworn to and subscribed before me this 2nd Day of July, 2014.

MY COMMISSION EXPIRES

SEAL

Handwritten signature of Sandra M. Chiusa, Notary Public
COMMONWEALTH OF PENNSYLVANIA
Notarial Seal
Sandra M. Chiusa, Notary Public
Media Boro, Delaware County
My Commission Expires April 19, 2015
MEMBER, PENNSYLVANIA ASSOCIATION OF NOTARIES