

Recycling Element

Town of Dover Master Plan

March 4, 2008



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Introduction

The Municipal Land Use Law – NJSA 40:55D-1 et. Seq. (MLUL) addresses the issue of recycling in response to the Statewide Mandatory Source Separation and Recycling Act. The MLUL at 40:55D-2 specifically included a provision that deals with recycling in the “Purpose” section. It reads:

- O. To promote the maximum practicable recovery and recycling of recyclable materials from municipal solid waste through the use of planning practices designed to incorporate the State Recycling Plan goals and to complement municipal recycling programs.*

The MLUL also contains a provision that addresses the preparation, contents and modifications of the Master Plan at 40:55D-28. More specifically with respect to recycling, 40:55D-28(12) states:

- (12). A recycling plan element which incorporates the State Recycling Plan goals, including provisions for the collection, disposition and recycling of recyclable materials designated in the municipal recycling ordinance, and for the collection, disposition and recycling of recyclable materials within any development proposal for the construction of 50 or more units of single-family residential housing or 25 or more units of multi-family residential housing and any commercial or industrial development proposal for the utilization of 1,000 square feet or more of land;*

Background

The Town of Dover is in the Morris County Solid Waste Management District established in accordance with the New Jersey Solid Waste management Act (NJSA 13E-1, et. seq.). In March of 2007, the Morris County Municipal Utilities Authority (MCMUA), on behalf of the Morris County Board of Chosen Freeholders, prepared the Solid Waste Management Plan Amendment (SWMPA) in response to the January 2006 New Jersey Department of Environmental Protection (NJDEP) Solid Waste Management and Sludge Management State Plan Update.

The March 2007 Morris County SWMPA (MCSWMPA) mandates municipal responsibilities in order to insure achievement of the Municipal Solid Waste (MSW) Recycling Goal in each municipality, and in order to meet the requirements set forth in NJSA 13:1E-99.16.

The Town of Dover's last revised the Recycling Element of the Town of Dover Master Plan on February 22, 1989. The plan was prepared by Daniel Biondo, the Municipal Recycling Coordinator at the time.

This Recycling Element of the Master Plan of the Town of Dover is written to replace the previous 1989 Plan and is intended to address the Town of Dover's mandated responsibilities as outlined in the March 2007 Morris County SWMPA with regards to reviewing and revising the Master Plan per NJSA 13:1E-99.16.6.c..

Year	Curbside Collected Solid Waste (Tons)	Curbside Collected Recyclables Including Yard & Vegetative Waste (Tons)	Total Curbside Municipal Solid Waste Stream (Tons)	Curbside Recycling Rate
1996	4507	2475	6982	35%
1997	4595	2441	7036	35%
1998	4714	2129	6843	31%
1999	4667	2583	7250	36%
2000	5388	2646	8034	33%
2001	5429	3370	8799	38%
2002	5554	3324	8878	37%
2003	5902	3252	9154	36%
2004	5880	3267	9147	36%
2005	5834	3418	9252	37%
2006	5647	3001	8648	35%

Goal

The total municipal solid waste stream¹ is made up of waste material picked-up curbside by the Town of Dover's solid waste and recyclable material pick-up & hauling contractors, plus those waste materials picked-up and disposed of privately from sources within the boundaries of the Town of Dover. Table 1 shows the Town of Dover Curbside Collections Rates. That is, the tonnages for the municipal solid waste stream that is directly picked-up by the Town of Dover or its contractors.

Table 1 - Town of Dover Curbside Collection Rates

¹ For the purposes of this subsection, "total municipal solid waste stream" means the sum of the municipal solid waste stream disposed of as solid waste, as measured in tons, plus the total number of tons of recyclable materials recycled, as defined in NJSA 13:1E-99.13.b

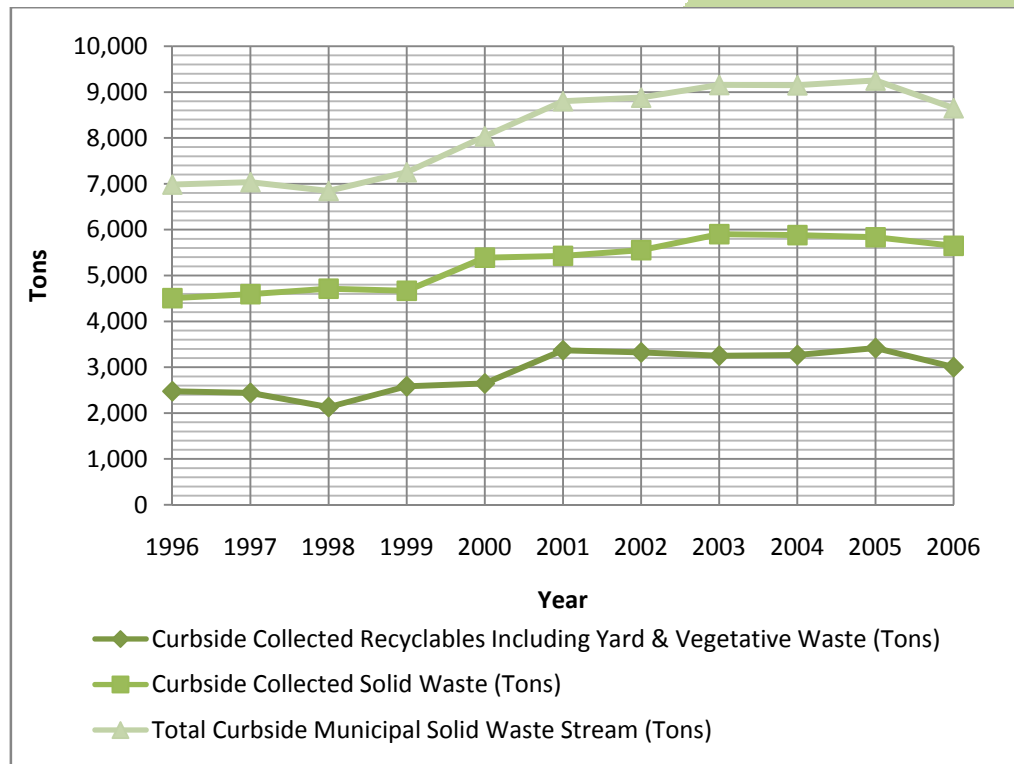


Figure 1 - Curbside Collected Municipal Solid Waste (Town of Dover)

It is the Goal of this Plan for the Town of Dover to recycle at least 50% of the total municipal solid waste stream, including yard waste and vegetative waste, by the year 2015. This goal is actually the same goal stipulated in NJSA 13:1E-99.13.b(4)(c) that was supposed to be “targeted” by December 31, 1995, but was never met.

The Town of Dover maintains records of curbside collected waste by contractors of the Town.

Figure 2 shows that between the years 1996 and 2006, the curbside pickup recycling rate varied with a low of 31% in 1998 and a high of 38% in 2001, well below the goal of 50%.

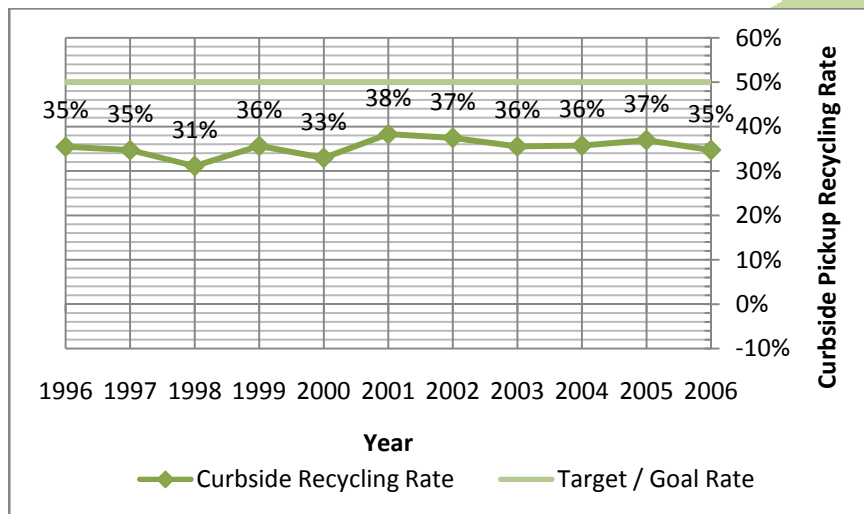


Figure 2 - Curbside Pickup Recycling Rate (Town of Dover)

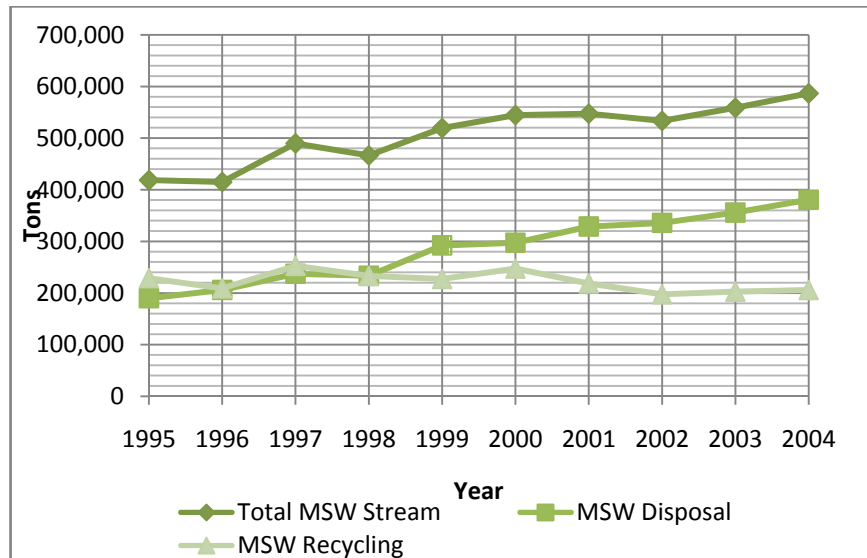


Figure 3 – Morris County Total MSW Disposal & Recycling

Figure 3 indicates a steady rise between 1995 and 2004 of the total MSW stream. It also shows that, although minor, a slight decrease in the MSW recycling over the same period. What is however a concern is that during the same period that the MSW recycling slightly decreased, the MSW disposal almost doubled. It should be noted that these values include the entire MSW stream for Dover, not just what is picked up by the Town's curbside pick-up program.

Figure 4 shows the breakdown of the MSW disposal tonnage percentage by hauler. It is clear that the Town of Dover's curbside pick-up represents only 40.7% of the total. Significant percentages are contributed by Veolia Environmental Services (25.5%) and Waste Management/Lafayette (21.1%).

It is evident that focusing only on the Town's curbside pick-up program to increase the recycling rate will only yield partial benefits. Focus must also be directed to the sources and the haulers associated with the second and third largest contributors.

Veolia Environmental Services, which picks up and hauls the second highest percentage of MSW (25.5%) is the hauler for the Town of Dover Board of Education, and other commercial facilities in the town. It is believed that a substantial amount of paper generated by the school system winds up in the MSW disposal stream as opposed to the recycling stream. Recycling training and enforcement should therefore be increased in the school system.

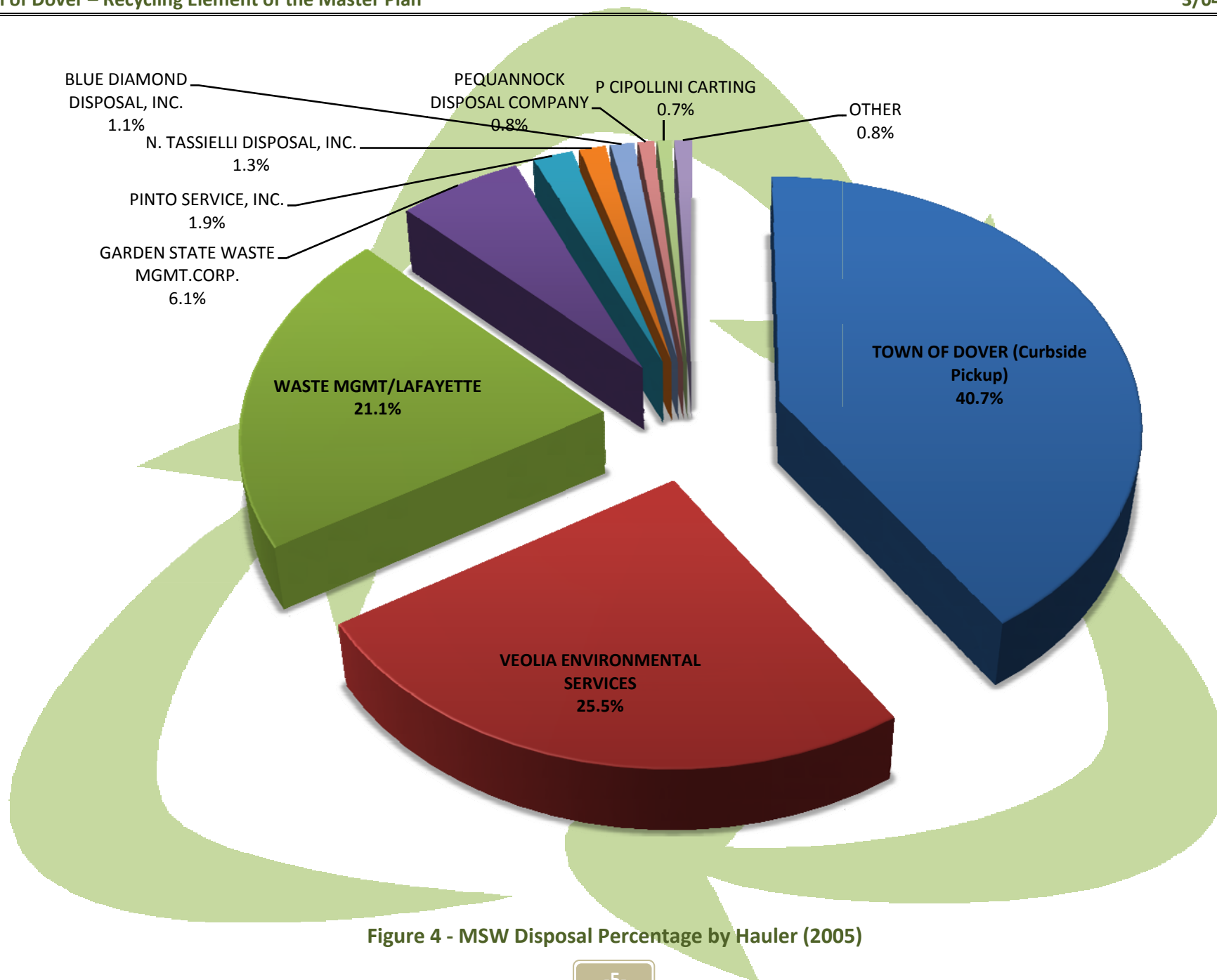


Figure 4 - MSW Disposal Percentage by Hauler (2005)

Waste Management/Lafayette is the waste hauler for St. Clare's Hospital – Dover Campus. The hospital should be contacted regarding their recycling program and efforts made to maximize same. Periodic inspections should be made of the facility to insure recycling compliance.

Focusing recycling efforts and enforcement in these three (3) areas (Curbside, Schools, and Hospital) should greatly improve the Town of Dover's recycling percentages since they account for over 87% of the MSW Disposal in Town.

In recent months, the Morris County Municipal Utilities Authority (MUA) has stepped up enforcement on haulers who mix recyclables with disposal loads that are delivered to the transfer stations. Table 2 shows examples of recent activity since the summer of 2007. Of note is that all of the violations are associated with mixing corrugated cardboard with disposal loads.

ID No.	Date	Hauler	Generator	Material
57	8/8/07	Fania Company- Dover, NJ	Fania Company 271 E. Blackwell St.	100% Corrugated Cardboard
86	8/28/07	Republic Services of NJ, Inc. - New Brunswick, NJ	Frito Lay 245 W. Clinton St.	50% Corrugated Cardboard
101	9/7/07	Interstate Waste Services of NJ - Slootsburg, NY	Home Depot 530 Mt. Pleasant Ave.	50% Corrugated Cardboard
105	9/17/07	Blue Diamond Disposal, Inc. - Succasunna, NJ	Bassett Furniture 38 Richboynton Road	40% Corrugated Cardboard
125	10/5/07	Louis T. Roselle, Inc. - Fairfield, NJ	San-Rallo 50 Richboynton Rd.	45% Corrugated Cardboard
212	12/17/07	Garden State Waste Management Corp. - S. Plainfield, NJ	Walgreens Rt 46 & Mercer St.	40% Corrugated Cardboard
229	1/7/08	Garden State Waste Management Corp. - S. Plainfield, NJ	Walgreens Rt 46 & Mercer St.	35% Corrugated Cardboard

Table 2 - MUA Inspection Notices (Dover)

It is a goal of this plan to improve the recycling performance of the non-residential facilities that have their solid waste and recyclable materials picked up and hauled by haulers other than the Town's curbside collection hauler. It is recommended that a mandated site specific Solid Waste and Recycling Management Plan (SWRMP) be required to be prepared and submitted for approval to the Town's Recycling Coordinator for larger non-residential facilities. The Town's Recycling Coordinator should develop standards and procedures for the SWRMP. The recommended threshold facility size to require such a plan should be as indicated in Table 3.

The site specific SWRMP should include employee training, method of source separation, provisions for enclosure areas for necessary containers, arrangements for solid waste and recyclable haulers and submission of annual reports indicating tonnages.

The Town of Dover has experienced problems with the outdoor storage of solid waste and recyclable materials. Although the current regulations require them, they do not address specific size requirements. It is recommended that there be a requirement that sets forth minimum sizes for solid waste and recycling enclosures for multi-dwellings and non-residential facilities. Many communities in California have adopted similar measures in order to insure that the enclosures are of sufficient size to accommodate both solid waste and recyclable materials. The requirements set forth by the City of Redmond, CA are a function of use and area of use. Table 4 shows those values.

Facility Type/Use	Minimum Size (Square Feet of Gross Floor Area)
Retail	6,000
Manufacturing and other General Commercial	7,500
Office, Educational & Institutional	5,000
Multi-Dwellings	10 Units or More

**Table 3 - Minimum Recommended Facility Size for
SWRMP**

Facility Type/Use	Enclosure Size
Retail	5 SF / 1,000 GFA*
Manufacturing and other General Commercial	3 SF / 1,000 GFA*
Office, Educational & Institutional	2 SF / 1,000 GFA*
	100 SF for 1 st 10 DU Plus
Multi-Dwellings	5 SF/Additional DU **

*65 SF Min., 1,000 SF Max.

** DU = Dwelling Unit

Table 4 - Enclosure Size

Provisions for the Recycling of Recyclable Materials - Source Separation

The Morris County Solid Waste Management Plan (MCSWMP) requires "source separation" as the primary method of separating the recyclable waste stream from the solid waste stream. The MCSWMP cites the following reasons:

- Source separation is mandated by law under the New Jersey Source Separation and Recycling Act (N.J.S.A. 13:1E-99 et. seq.). In support of this law the MCMUA favors a consistent source separation policy throughout the residential, commercial and institutional sectors.
- Source separation promotes the removal of all designated recyclable materials from the waste stream and, therefore, helps in achieving high reduction rates.
- Source Separation promotes clean, marketable materials by limiting levels of contamination. Contamination undermines long-term marketability of recyclable materials.
- Source Separation enables the recycler at the source to receive the economic benefits of cost avoidance by not disposing of recyclable materials as solid waste as well as enabling the recycler to receive revenue by the sale of the recyclable material.
- Source separation fosters a free market, independent of the solid waste collection and disposal system. This reduces the need for burdensome regulations and costly enforcement.
- Proper documentation is difficult, if not impossible, when recyclables are mixed with solid waste.
- Source separation fosters competition among recycling companies, thereby keeping costs low and quality of services high.
- Source separation encourages a thought process among each individual recycler that solid waste disposal is every person's responsibility. This can foster further source reduction and recycling activities at work, home and school.

It is the intention of this plan to be consistent with the MCSWMP. The list in Table 4 shows mandated materials that represents the minimum requirements for residents, business and institutions in Morris County. The Town of Dover should mandate the same.



DID YOU KNOW.....

Almost 10 million trees were saved as a result of paper recycling programs in New Jersey in 2004.



Materials Mandated to be Source Separated and Recycled - Morris County, New Jersey

Aluminum Cans	Cans made from aluminum that was manufactured to hold a serving of a beverage. Specifically omitted from this definition are aluminum foil and aluminum pie plates.
Glass Bottles and Jars	Bottles and jars made from glass including clear, brown and green glass. A bottle is defined as a receptacle having a narrow neck and a mouth that can be corked or capped. A jar is defined as a wide mouthed container that can be capped. Caps and lids not included. Specifically omitted from this definition are drinking glasses, windows, mirrors, light bulbs, and anything made of Pyrex® or ceramic.
Plastic Bottles (coded 1 and 2) 	Plastic bottles coded to indicate that they are comprised of the specific types of plastic compounds (polymers) known as polyethylene terephthalate (PETE) or high density polyethylene (HDPE). See symbols to the left. A bottle is defined as a receptacle having a narrow neck and a mouth that can be corked or capped. Caps and lids not included. Any item made of plastic that is not a bottle, and any plastic bottle without one of the symbols shown to the left is specifically omitted from this definition.
Steel (Tin) Cans	An air-tight container for the distribution or storage of goods, composed of thin, usually ferrous metal. Examples are soup cans and tuna fish cans.
Newspaper	A publication containing news, information and advertising, usually printed on low-cost paper called newsprint. Newspaper may include glossy inserts which come with the paper, dependent upon the market conditions at the time.
Corrugated Cardboard	Shipping containers made with Kraft paper linerboard and corrugated medium.
Mixed Paper	Various categories of recyclable paper including, but not limited to white and colored paper used in printers, photocopiers and fax machines, white and colored ledger paper, carbonless copy paper, construction paper, undeliverable mail, mailed promotional letters/ advertisements/circulars, magazines, catalogues, envelopes, soft cover books.
Leaves	Vegetative material, typically generated in the autumn when they fall from trees and then are raked from residents' and/or commercial lawns.
Grass Clippings	Vegetative material generated when grass (lawns) are cut.
Brush	Branches, woody plants and other similar vegetative material. Leaves and grass do not constitute brush.
Natural Wood Waste	Logs, stumps, branches and other wood tree parts. Dimensional lumber is omitted from inclusion in this definition.
Oil-Contaminated Soil	Non-hazardous soil that contains petroleum hydrocarbons (gasoline, diesel, kerosene, jet fuel, #4 & #6 heating oil and certain other refinery products including coal tar). This type of soil shall be determined to be non-hazardous in accordance with the standards set forth in N.J.A.C. 7:26.
Used Motor Oil	Motor oil from motor vehicles, lawn mowers, boats, etc., which has served its intended useful purpose.

(cont.)

(cont.)

Lead-Acid Batteries	Storage batteries in which the electrodes are grids of lead containing lead oxides that change in composition during charging and discharging, and the electrolyte is dilute sulfuric acid. These include starting batteries such as car batteries that deliver a short burst of high power to start the engine. In addition, they may include deep cell batteries found on boats or campers used to power accessories like trolling motors, winches or lights.
Hazardous Dry Cell Batteries	Rechargeable batteries, such as nickel-cadmium, nickel-iron, nickel, metal hydride, lithium ion, small sealed lead acid, etc. These are often used as substitutes for non-rechargeable batteries in standard sizes such as AAA, AA, C, D and 9V. Rechargeable batteries are commonly found in cordless tools, cellular and cordless phones, laptop computers, cameras, remote controls, toys, etc. Also included in this definition are non-rechargeable batteries that are hazardous as defined by the Resource Conservation Recovery Act ("RCRA"), regardless of the RCRA exclusion of household waste from the definition of hazardous waste pursuant to 40 C.F.R. 261.4(b). Non-rechargeable, hazardous batteries include older alkaline and carbon zinc batteries as well as silver oxide, mercury and magnesium button-type batteries, etc. It should be noted that domestically manufactured alkaline and carbon zinc non-rechargeable batteries made after circa 1994 eliminated mercury content to the point that they should not be considered RCRA hazardous and therefore are not included in this material category.
Metal Appliances	Appliances composed predominantly of metal, and may include stoves, washing machines and dryers, for example, if the appliance is predominantly metal. Also included are air conditioners, refrigerators and dehumidifiers if they are predominantly metal. If these appliances on the latter list contain refrigerants that are prohibited by the Clean Air Act from being knowingly vented, the refrigerant must be recovered accordingly.
Whole Tires*	Tires that are whole, not chipped into small pieces. *Tires are allowed to be recycled and/or incinerated for energy recovery.

Table 5 – Mandatory Source Separated and Recyclable Materials

The following section explains the changes made to each of the material categories, if any, since the MCSWMP 1993 Plan Amendment.

Newspaper - There is no change to the source separation requirement for Newspaper. This material remains mandatory for all generators to source separate and recycle.

Corrugated Cardboard - In the 1993 Plan Amendment, this material was referred to as "Corrugated." The term Corrugated Cardboard better explains type of material defined. There is no change to the source separation requirement for Corrugated Cardboard. It continues to be mandatory for all generators to source separate and recycle this material.

Mixed Paper - There is no change to the source separation requirement for Mixed Paper. It continues to be mandatory for all generators to source separate and recycle this material.

Aluminum Cans - In the 1993 Plan Amendment, this material was referred to as "Aluminum," and the intent was that it meant Aluminum Cans. The word "Cans" has been added to clarify the intent. Aluminum foil and aluminum pie plates are not included in this material. Otherwise, there is no change to the source separation requirement for Aluminum Cans. It continues to be mandatory for all generators to source separate and recycle this material.

Plastic Bottles coded 1 and 2 - In the 1993 Plan Amendment, this material was referred to as "Plastic Containers." It has since been learned that markets exist primarily for PETE (Polyethylene Terephthalate) and HDPE (High Density Polyethylene) plastic bottles (coded number 1 and number 2, respectively). See the symbols that follow. The word "Containers" has been replaced with the phrase "Bottles coded 1 and 2" to clarify that only bottles with the codes 1 and 2 as shown below are included in this material category, and other plastic bottles and containers are not. A bottle is defined as a receptacle having a narrow neck and a mouth that can be corked or capped. Otherwise, there is no change to the source separation requirement for Plastic Bottles coded 1 and 2. It continues to be mandatory for all generators to source separate and recycle this material.

Polyethylene Terephthalate:



High Density Polyethylene:



Glass Bottles and Jars - In the 1993 Plan Amendment, this material was referred to as "Glass Containers," and the intent was that meant Glass Bottles and Jars. The phrase "Bottles and Jars" has been added to clarify the intent. For example, drinking glasses and Pyrex® containers are not included in this material. Otherwise, there is no change to the source separation requirement for Glass Bottles and Jars. It continues to be mandatory for all generators to source separate and recycle this material.

Steel Cans - In the 1993 Plan Amendment, this material was referred to as "Ferrous Containers." It is now felt that a more recognizable term to describe this material is Steel Cans. Otherwise, there is no change to the source separation requirement for Steel Cans. It continues to be mandatory for all generators to source separate and recycle this material.

Leaves - In the 1993 Plan Amendment, this material was referred to as "Yard Waste." Leaves has been included as a separate item, in lieu of the broader term "Yard Waste," in order to differentiate between leaves and other organic material that is generated

outdoors. Otherwise, there is no change to the source separation requirement for Leaves. It continues to be mandatory for all generators to source separate and recycle this material.

Grass - In the 1993 Plan Amendment, this material was referred to as "Yard Waste." Grass has been included as a separate item, in lieu of the broader term "Yard Waste," in order to differentiate between grass and other organic material that is generated outdoors. Otherwise, there is no change to the source separation requirement for Grass. It continues to be mandatory for all generators to source separate and recycle this material.

Brush - In the 1993 Plan Amendment, this material was referred to as "Yard Waste." Brush has been included as a separate item, in lieu of the broader term "Yard Waste," in order to differentiate between brush and other organic material that is generated outdoors. Otherwise, there is no change to the source separation requirement for Brush. It continues to be mandatory for all generators to source separate and recycle this material.

Lead-Acid Batteries - In the 1993 Plan Amendment, this material was referred to as "Vehicular Batteries." The term Lead-Acid Batteries better explains type of material defined. Otherwise, there is no change to the source separation requirement for Lead-Acid Batteries. It continues to be mandatory for all generators to source separate and recycle this material.

Metal Appliances - In the 1993 Plan Amendment, this material was referred to as "White Goods." It is now felt that a more recognizable term to describe this material is Metal Appliances. Otherwise, there is no change to the source separation requirement for Metal Appliances. It continues to be mandatory for all generators to source separate and recycle this material.

Used Motor Oil - In the 1993 Plan Amendment, this material was referred to as "Motor Oil." The term was changed slightly to Used Motor Oil to more clearly indicate that this is motor oil which has been used. Otherwise, there is no change to the source separation requirement for Used Motor Oil. It continues to be mandatory for all generators to source separate and recycle this material.

Oil Contaminated Soil – There is no change to the source separation requirement for Oil-Contaminated Soil. It continues to be mandatory for all generators to source separate and recycle this material.

Natural Wood Waste - In the 1993 Plan Amendment, this material was referred to as "Stumps," and the remarks indicated that the term Stumps included "logs, branches, natural wood waste." A more inclusive term to describe this material is Natural Wood Waste, which includes stumps logs and branches and other wood tree parts. Otherwise, there is no change to the source separation requirement for Natural Wood Waste. It continues to be mandatory for all generators to source separate and recycle this material.

Hazardous Dry Cell Batteries - In the 1993 Plan Amendment, this material was referred to as "Household Batteries." The term Hazardous Dry Cell Batteries better explains the material defined. This category has been modified slightly and now allows non-hazardous dry cell batteries to be disposed as MSW. Circa 1994, most non-rechargeable dry cell batteries became non-hazardous when the battery industry removed most of the mercury contained in the dry cell. If the industry continues to change the formulation of dry cell batteries, rechargeable and/or non-rechargeable, the determination of whether or not the battery must be source separated and recycled is based on whether or not it is hazardous.

Whole Tires - In the 1993 Plan Amendment, this material was referred to as "Tires." The category is now renamed Whole Tires to differentiate between whole tires and chipped tires. Chipped tires are excluded from this definition. Another change with this Plan Amendment regarding whole tires is that whole tires are allowed to be incinerated for energy recovery. Whole Tires are not acceptable at the transfer station for disposal since whole tires are not allowed for disposal at landfills, due to the fact that they tend to resurface after having been buried. Whole Tires are, however, allowed to be incinerated for energy recovery (waste-to-energy) or as a tire-derived fuel (TDF). Waste-to-energy is considered by the NJDEP to a "beneficial use." The category "beneficial use" is a separate and distinct waste handling method from recycling and is therefore not considered to be recycling. Therefore, Whole Tires are an exception on this list of designated materials in that all of the materials on this list must be recycled. Whole Tires must either be recycled or incinerated for energy recovery as a beneficial use.

It shall be mandatory for all persons who are owners, tenants, or occupants of residential and non-residential premises, which shall include but not be limited to retail and other commercial locations, as well as government, schools and other institutional locations within the Town of Dover, to separate designated recyclable materials from all solid waste. Designated recyclable materials shall be deposited separate and apart from other solid waste generated by the owners, tenants, or occupants of such premises. Designated recyclable materials shall be placed separately at the curb in a manner and on such days and times established by regulations promulgated by the Town of Dover.

Pursuant to N.J.S.A. 13:1E-99.16.6.(d), the governing body of a municipality may exempt persons occupying commercial or institutional premises within its municipal boundaries from the source separation requirements of the ordinance which requires persons generating municipal solid waste within its municipal boundaries to source separate from the municipal solid waste stream, the specified recyclable materials if those persons have otherwise provided for the recycling of all designated recyclable materials. To be eligible for an exemption, a commercial or institutional generator of solid waste must file an application for exemption with the municipal recycling coordinator on forms to be provided for this purpose. The recycling service provider or

commercial/institutional generator shall provide on an annual basis, written documentation to the municipal recycling coordinator of the total number of tons collected and recycled for each designated material. This plan does not anticipate anyone requesting an exemption however.

Provisions for the Collection and Disposition of Recyclable Materials

In order to maintain the orderly appearance of the public streets and control rodents in Dover, it is necessary to stipulate the time periods that Recyclable Materials can be placed curbside. It is also necessary to be consistent with the same Solid Waste requirements. In addition, it is important to recognize the difference between the Downtown Business Area and other areas of the Town. Accordingly, the following is recommended.

For the Downtown Business Area, it should be unlawful to deposit or leave any Recyclable Materials, including containers for same, of any kind upon the sidewalks, curbs or gutters of the Town of Dover on the following streets, except that such Recyclable Materials, including containers for same, of any kind may be placed on the sidewalks or curbs only from 5:00 p.m. the night before the designated Recyclable Materials removal date until 5:00 p.m. the day of the Recyclable Materials collection for such section. The streets in question are as follows:

- Blackwell Street from Prospect Street to Mercer Street.
- Dickerson Street from Warren Street to Essex Street.
- Bassett Highway from Warren Street to Sussex Street.
- Warren Street from Dickerson Street to Bassett Highway.
- Sussex Street from Dickerson Street to Clinton Street.
- Morris Street from Dickerson Street to Clinton Street.
- Essex Street from Dickerson Street to Central Railroad tracks.
- Bergen Street from the Dover Train Station to the Central Railroad tracks.
- Union Street from Blackwell Street to the Central Railroad tracks.

DID YOU KNOW.....

One ton of glass made from 50% recycled materials saves 250 lbs. of mining waste.

For other areas, it should be unlawful to deposit or leave any Recyclable Materials of any kind upon the sidewalks, curbs or gutters of the Town of Dover, on any streets in the Town of Dover, except those streets set forth in § 291-5.A. above, except that such Recyclable Materials of any kind may be placed on the sidewalks or curbs only from 5:00 p.m. the night before the designated Recyclable Materials removal date until 8:00 p.m. the day of the Recyclable Materials collection for such section.

Recyclable Materials Containers should be used for comingled aluminum cans, glass bottles, glass jars, plastic bottles coded 1 and 2, and steel and tin cans properly prepared. Recyclable Materials Containers should be any light-gauge steel, plastic or galvanized receptacle, closed at one end and open at the other, furnished with a top or lid, and weighing not more than 30 pounds when full of Recyclable Materials. Consideration should be given to a program of standardized recycling containers for comingled materials, administered by the Town.



Recyclable Materials should be prepared in accordance with the requirements provided in an annual Recycling and Garbage Handbook.

The Recyclable Materials Collection Contractor for the Town of Dover should provide curbside recyclable materials collection for all recyclable materials generated in the Town of Dover from each residential dwelling unit, multifamily dwelling, business, office and store. Such work shall be under the supervision of the Town of Dover Health Department. Specifically excluded from recyclable materials pickup should be schools, hospitals and industrial buildings, which should make provisions on their own. Also specifically excluded from recyclable materials collection is the collection of Municipal Solid Waste, medical waste, industrial waste, hazardous materials and construction debris. The Town of Dover Department of Public Works or an authorized contractor, will provide collection of white goods and tires to all premises receiving curbside solid waste collection, subject to the requirements of a sticker program in which residents will pay a fee for a sticker to be placed on those items prior to pick-up.

All receptacles and dumpsters used for the storage of recyclable materials should be kept in a clean and safe manner.

DID YOU KNOW.....

Recycled paper production also requires between 23% to 74% less energy than virgin paper production.

Residential Dwelling Compliance

The owner of any property should be responsible for compliance with Recycling Regulations. For multifamily units, the management or owner should be responsible for setting up and maintaining the recycling system, including collection of recyclable materials, in accordance with guidelines or regulations established by the appropriate municipal office. Violations and penalty notices should be directed to the owner or management, in those instances where the violator is not easily identifiable. The management should issue notification and collection rules to new tenants when they arrive and every 6 months during their occupancy.

Non-Residential Dwelling Compliance

All non-residential generators, including commercial, industrial and institutional establishments, of solid waste should be responsible for compliance with Recycling Regulations.

The arrangement for collection of designated recyclables should be the responsibility of the commercial, institutional or industrial property owner or their designee, unless the Town of Dover provides for the collection of designated recyclable materials. All commercial, institutional or industrial properties which provide outdoors litter receptacles and disposal service for their contents should also provide receptacles for designated recyclable materials, for those materials commonly deposited, in the location of the litter receptacle, and should provide for separate recycling service for their contents.

All non-residential facilities should report on an annual basis to the Municipal Recycling Coordinator on recycling activities at their premises, including the amount of recycled material, by material type, collected and recycled and the vendor or vendors providing recycling service.

All retail food establishments as defined in NJAC 8:24, should, in addition to compliance with all other recycling requirements, be required to recycle grease and/or cooking oil created in the processing of food or food products, and maintain records.

DID YOU KNOW.....

In 2004, New Jersey's recycling efforts reduced overall emissions of sulfur oxides, an important ingredient in acid rain, by over 7,300 metric tons and nitrous oxides by over 7,600 metric tons.

New Developments of Multi-Family Residential Units or Commercial, Institutional, or Industrial Properties

Any application to the planning board of Town of Dover for subdivision or site plan approval for the construction of multi-family dwellings of three or more units, single family developments of 50 or more units or any commercial, institutional, or industrial development for the utilization of 1,000 square feet or more of land, should include a recycling plan. This plan should contain, at a minimum, the following:

1. A detailed analysis of the expected composition and amounts of solid waste and recyclables generated at the proposed development; and
2. Locations documented on the application's site plan that provide for convenient recycling opportunities for all owners, tenants, and occupants. The recycling area shall be of sufficient size, convenient location and contain other attributes (signage, lighting, fencing, etc.) as may be determined by the municipal recycling coordinator.

All uses other than single- or two-family homes that requires subdivision or site plan approval should provide for an indoor and/or outdoor solid waste and recycling areas for the collection and storage of commercially and/or residentially-generated solid waste and recyclable materials. The number of sites and dimensions of the solid waste and recycling areas should be sufficient to accommodate solid waste and recycling bins or containers which are of adequate size and number, and which are consistent with anticipated usage and with current methods of collection in the area in which the project is located. The number of sites and dimensions of the solid waste and recycling areas, and the bins or containers should be determined in consultation with the Health Department and the Municipal Recycling Coordinator, and should be consistent with the Morris County Solid Waste Management Plan.

For existing developed sites, these requirements could be waived by the Planning Board or Board of Adjustment upon showing by the applicant that the site currently handles all solid waste and recyclable materials in an existing location not meeting these requirements, but in a satisfactory manner. Evidence of this should include a report from the Town of Dover Health Department and Recycling Coordinator.

Solid waste and recycling areas should be subject to the following minimum standards:

1. The solid waste and recycling areas should not be located within any front yard area.
2. The walls of each solid waste and recycling enclosure shall be constructed of solid masonry material with decorative exterior surface finish compatible to the main structure(s). Split face concrete block finish is recommended. The walls shall be a minimum of six feet in height.
3. Each recycling and trash enclosure shall have decorative solid heavy gauge metal gates and be designed with cane bolts to secure the gates when in the open and closed positions
4. One side should contain a gate of sufficient width to accommodate the containers.
5. A separate pedestrian entrance shall be provided. The pedestrian entrance shall be located such that it shields the view of the containers, or in the alternative accommodated with a decorative solid heavy gauge metal gate
6. A concrete apron shall be constructed either in front of each recycling and trash enclosure or at the point of receptacle pick-up to minimize damage to the surrounding asphalt paving. The minimum dimensions of the concrete apron shall be 10 feet wide and twenty feet long. The apron material shall consist of five inch dense graded aggregate base and six inch Class B concrete slab.
7. The location, size and shape of the storage area should be such that each container can be moved in and out of the storage area without interfering with other containers in the storage area or other land uses adjacent to the storage area. The size shall be in accordance with Table 4, unless otherwise approved by the Planning Board.
8. A five-foot-minimum-width landscape area should be provided along the fence or wall enclosing the refuse storage area where deemed appropriate by the Planning Board or Board of Adjustment. The landscaping to be provided should be shown on the site plan submitted to the Planning Board or Board of Adjustment for approval.

DID YOU KNOW.....

Four pounds of bauxite ore is saved for every pound of aluminum recycled.

9. The solid waste and recycling areas should be well lit, and shall be safely and easily accessible by solid waste and recycling personnel and vehicles. Collection vehicles shall be able to access the solid waste and recycling areas without interference from parked cars or other obstacles. Reasonable measures should be taken to protect the solid waste and recycling areas, and the bins or containers.

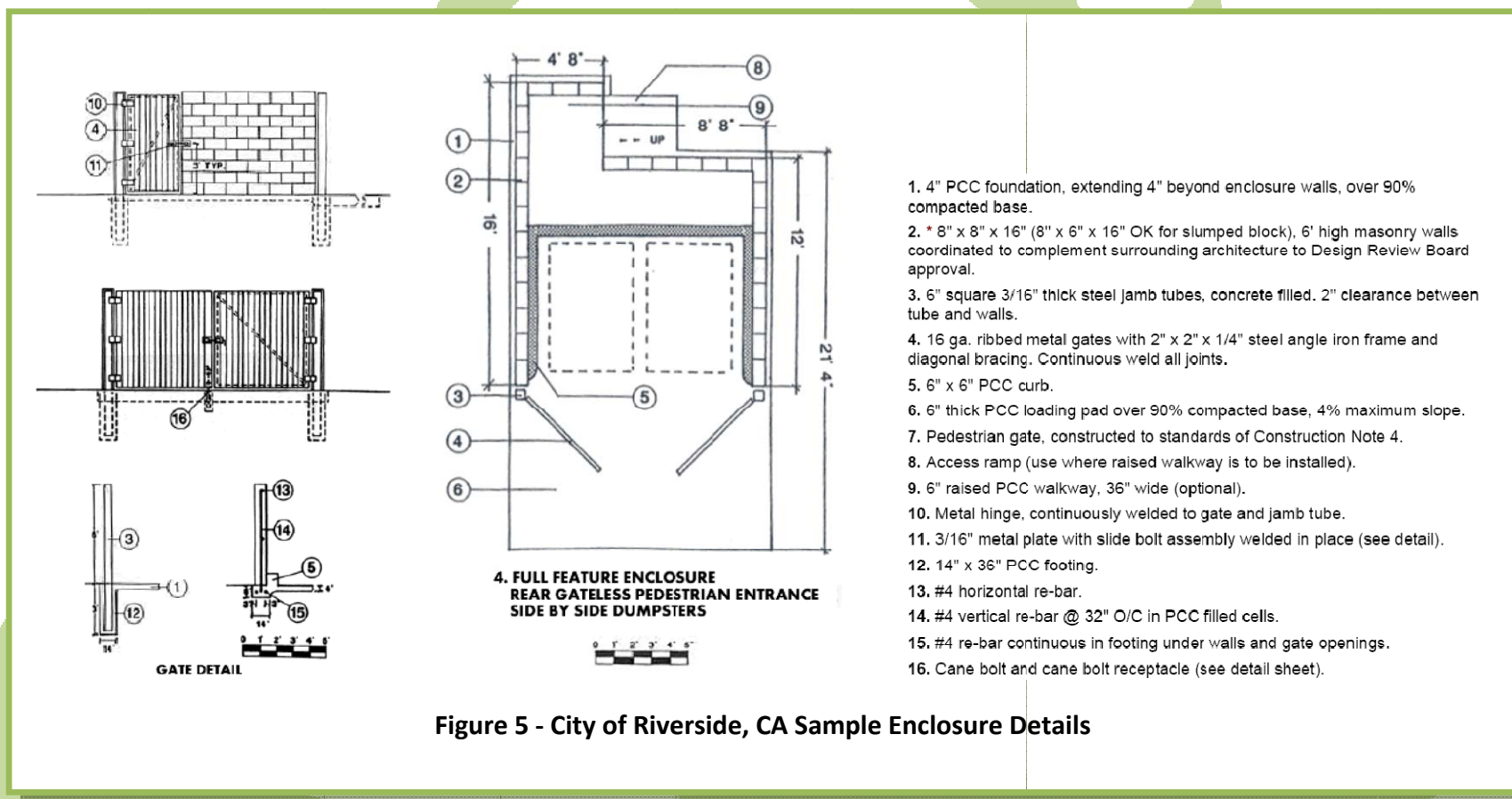


Figure 5 - City of Riverside, CA Sample Enclosure Details

10. The solid waste and recycling areas and the bins/containers placed therein should be designed so as to provide protection against adverse environmental conditions which might render the recyclable materials unmarketable. Any bins or containers which are located in an outdoor solid waste and recycling area, should be equipped with a lid, or otherwise covered, so as to keep the contents dry.
11. Signs clearly indentifying the recycling portion of the solid waste and recycling areas and the materials accepted therein should be posted adjacent to all points of access to the solid waste and recycling areas. Individual bins or containers for recyclable materials should be equipped with signs indicating the materials to be placed therein.
12. No containers or solid waste and recycling materials should be maintained anywhere on a site except in a solid waste and recycling area meeting these requirements.
13. It should be a violation of the site plan when the gates of a solid waste and recycling area are left open or when solid waste or recyclable material is placed outside of the approved solid waste and recycling area(s).
14. If outdoor storage of solid waste or recyclable materials is not proposed, the site plan should detail the methods proposed for accommodating the solid waste or recyclable materials within the structure. The Planning Board or Board of Adjustment may require that a suitable area be set aside, but not improved, for a future solid waste and recycling area meeting these requirements even if indoor accommodations are proposed.

Prior to the issuance of a Certificate of Compliance by the Code Enforcement Department of the Town of Dover, the owner of any new multi-family housing or commercial, institutional, or industrial development should supply a copy of a duly executed contract with a hauling company for the purposes of collection and recycling of source-separated recyclable materials, in those instances where the municipality does not otherwise provide this service.

Provision shall be made for the indoor, or enclosed outdoor, storage and pickup of solid waste, to be approved by the Town Engineer.

Prohibition of the Collection of Solid Waste Mixed with Recyclable Materials

It should be regulated as unlawful for solid waste collectors to collect solid waste that is mixed with, or contains visible signs of, designated recyclable materials. It should also be regulated as unlawful for solid waste collectors to remove for disposal those bags or containers of solid waste which visibly display a warning notice sticker or some other device indicating that the load of solid waste contains designated recyclable materials.

It should be the responsibility of the resident or occupant to properly segregate the uncollected solid waste for proper disposal or recycling.

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Works Cited

Morris County Municipal Utilities Authority Solid Waste Management Staff. (March 2007). *Morris County New Jersey Solid Waste management Plan Amendment*.