

2009 SOLID WASTE MANAGEMENT PLAN UPDATE

Prepared for:

The County of Atlantic



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2009 SOLID WASTE MANAGEMENT PLAN UPDATE

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ATLANTIC COUNTY 2009 SOLID WASTE MANAGEMENT PLAN UPDATE

BACKGROUND

NEW JERSEY HISTORICAL PERSPECTIVE

Prior to the 1970s, solid waste management in New Jersey did not have a definitive and coherent planned approach. This led to the enactment of the New Jersey Solid Waste Management Act of 1970, N.J.S.A. 13E-1 et seq. (the "Act"). The Act has provided the framework for the collection, transportation and disposal of solid waste for more than three decades in the state. It designated each of the twenty-one (21) counties in New Jersey, and the Hackensack Meadowlands Commission, as the solid waste management districts.

Each district was given the authority and responsibility to develop and implement a comprehensive solid waste management plan that would detail the individual district's solid waste management needs for a ten-year planning period. The plan was required to specify the current and projected waste generation, provide an inventory and appraisal of all facilities, analyze the waste collection and its transportation systems, and designate sufficient available suitable sites for waste disposal. The New Jersey Department of Environmental Protection (DEP) was responsible for reviewing and certifying that each district plan was consistent with the statewide solid waste management objectives, criteria and standards.

At the time the districts were preparing these plans, previously-used, unsafe landfills were being closed, and the amount of solid waste being generated was increasing along with the states' increasing population. With a shortage of facilities to handle this increased waste, New Jersey became an exporter of its solid waste. However, as the neighboring states were also required to close unsafe and outdated landfills, they began to stop accepting solid waste from New Jersey.

As a result, New Jersey developed a state-mandated goal of being self-sufficient through a combination of reducing the amount of solid waste being disposed of through mandatory recycling, and building sufficient in-state facilities to dispose of the remainder of the solid waste. This underlying goal of self sufficiency guided State and County solid waste policies and facility investments throughout the 1980's and 1990's.

In order to ensure that the public solid waste facilities would be paid for, the state initiated waste flow control. Basically, this required solid waste generators to ship and dispose of all solid waste generated within each district only at the district's designated facilities. Waste flow guaranteed the revenue necessary to finance these publicly-owned facilities.

Recycling became an integral component to the management of solid waste, and in 1987 the State adopted the "New Jersey Statewide Mandatory Source-Separation and Recycling Act", N.J.S.A. 13:1E-99.11 et seq. (herein referred to as the "Recycling Act"). As identified in the Recycling Act, statewide mandatory recycling goals were established, and municipalities were assigned the responsibility for implementing recycling programs for residential, commercial and institutional waste generators.

With this regulatory structure in place (waste flow) and billions of dollars of public debt, a court case challenged the legality of waste flow control. Basically, the Atlantic Coast vs. Carbone

case invalidated New Jersey's historic system of waste flow control. After each solid waste management district followed the state's mandate and invested billions of dollars, they now had to reevaluate their solid waste disposal plans and initiate appropriate amendments thereto.

The district solid waste management plans that followed varied. As identified in the current Statewide Solid Waste Management Plan Update, four waste management systems are being utilized by the solid waste management districts as a result of the court decisions. The description of these systems is taken directly out of the State Plan Update.

1. Non-discriminatory Bidding Flow Control

Under this system, which consists of a non-discriminatory bidding process allowing in-state and out-of-state companies to bid on a contract for disposal of a county's waste, counties can institute solid waste flow control on the waste contracted. The waste that is the subject of the contract can be required to be disposed of at the contracted location.

2. Intrastate Flow Control

An Intrastate flow control system mandates that all non-recycled solid waste generated within a county, which is not transported out-of-state for disposal, shall be disposed of at the designated in-county disposal facility.

3. Market Participant

A market participant system allows a county-owned facility to compete with other in-state and out-of-state disposal facilities for the disposal of solid waste.

4. Free Market

A free market system allows solid waste generated within a county to be disposed at whatever disposal facility agrees to accept the waste, based on terms freely agreed to by the generator, the transporter and the disposal facility operator.

Currently, as directed by the updated 2006 Statewide Solid Waste Management Plan, all district solid waste management plans must be updated to be consistent with the State's update.

ATLANTIC COUNTY HISTORICAL BACKGROUND

The Atlantic County Solid Waste Management Plan of 1980 determined that recycling, resource recovery and landfill siting were the major issues to be resolved. The original plan recommended that six County Districts be established, each with a landfill. The eventual closure of these landfills would be combined with the expansion of the Pinelands Park Landfill. At the same time, the Chosen Board of Freeholders designated the Atlantic County Utilities Authority (ACUA) as the primary agency to perform a landfill siting study for a new landfill within the County.

Amendments to the County Solid Waste Management Plan were consequently adopted to ensure there would be sufficient capacity for the County's solid waste. The amendments also permitted a temporary expansion of the Pinelands Park Landfill, conditioned upon a closure date of August 1990 as promulgated by the Pinelands Comprehensive Management Plan (CMP). The amendments further stipulated that no landfills located within the Pinelands areas of Atlantic County should expand; nor would any new landfills be sited in the Pinelands.

With no permanent disposal facility, the county's waste was being disposed of out-of-state at the GROWS Landfill in Pennsylvania, by way of the Atlantic County Utilities Authority Transfer Station located at the ACUA Haneman Environmental Park in Egg Harbor Township. This transfer station was permitted in 1990.

Following the goal of being self sufficient, the County then underwent a series of amendments and modifications seeking to operate a landfill adjacent to the transfer station. Due to its proximity to the Atlantic City Airport, a bird deterrent plan was required, but was rejected as it was deemed not viable. A subsequent amendment, which designated a Limited Use Landfill that was permitted to accept bulky and dry industrial wastes, was adopted and approved. This Limited Use Landfill was permitted in 1992.

During this time several amendments were adopted following the state's goal of self sufficiency. One amendment allowed an inter-district agreement with the goal of transporting Atlantic County's municipal solid waste to a proposed incinerator in Mercer County, while Mercer County would transport their bulky waste to the ACUA's Limited Use Landfill. The County also adopted amendments to allow inter-district agreements with Somerset, Hunterdon and Cape May counties to allow their bulky waste to be transported to the ACUA. Without waste flow, these inter-district agreements lapsed.

The County then acted to comply with the requirements of the New Jersey Statewide Mandatory Source-Separation and Recycling Act. On March 15, 1988, the Atlantic County Board of Chosen Freeholders adopted the Atlantic County Recycling Plan which established a collection system for designated recyclable materials. As a result of this amendment, the ACUA constructed and operates a state of the art recycling center and compost facility.

In response to the Atlantic Coast decision, Atlantic County established a market participant strategy. As part of this strategy, the County amended the plan to allow the disposal of Type 10 municipal waste at the landfill. The disposal of municipal solid waste started with the night time landfilling of 100 tons per day (tpd) and the landfill is now permitted to landfill all municipal solid waste received on a daily basis. The ACUA maintains nighttime landfilling with an extensive bird deterrent plan which provides a safe method for disposing municipal solid waste without a risk to aviation safety.

Most recently, in August of 2005, the County adopted an amendment for the expansion of the ACUA Landfill. The landfill expansion is projected to provide an additional 22 years of life to the landfill, providing disposal capacity to the year 2027.

Another transfer station, operated by Cifaloglio, Inc, is located in the western portion of the County in Buena Vista Township. This facility can handle up to 500 tpd of municipal solid waste, bulky waste, and construction and demolition waste.

The County's Solid Waste Management Plan is additionally supplemented through municipal recycling of "Class A" Recyclables (paper, cardboard, plastic, metal, and glass) using drop-off centers.

There are also several private "Class B" Recycling Centers within Atlantic County. A Class B material includes source-separated concrete, brick, block, asphalt-based roofing scrap, wood, asphalt, trees and tires. These Class B Recycling Centers provide for the receipt, processing, transfer and storage of these materials subject to NJDEP approval.

Together these facilities provide for the disposal and recycling needs of Atlantic County. In 2006, figures published by the NJDEP show that Atlantic County generated approximately 920,383 tons of solid waste. The county recycled approximately 475,709 tons, which calculates to 51.7% recycling rate for the total waste stream, and 444,674 tons were disposed. The County's municipal waste stream recycling rate was 27.5%.

ATLANTIC COUNTY 2009 SOLID WASTE MANAGEMENT PLAN UPDATE

PURPOSE

The Atlantic County Solid Waste Management Plan is being updated to make it consistent with the updated Statewide Solid Waste Management Plan as adopted by the New Jersey Department of Environmental Protection (NJDEP) on January 3, 2006. Specifically, the NJDEP has required that the amendment to the Atlantic County Solid Waste Management Plan update all district plan requirements mandated by statute including, but not limited to, the following:

- A. Designation of the department, unit or committee of the county government to supervise the implementation of the Atlantic County Solid Waste Management Plan (SWMP);
- B. Estimation of the quantity of solid waste anticipated to be generated within Atlantic County for a ten year period commencing with the adoption of the updated SWMP;
- C. An inventory of all existing solid waste and recycling facilities within Atlantic County;
- D. An outline of the solid waste disposal strategy to be utilized by the county for the ten-year planning period;
- E. A procedure for the processing of applications for inclusion of solid waste and recycling facilities within the county SWMP;
- F. Strategy for the attainment of recycling goals; and
- G. Enforcement.

**ATLANTIC COUNTY
2009 SOLID WASTE MANAGEMENT PLAN UPDATE**

A. DESIGNATION OF THE DEPARTMENT OF THE COUNTY GOVERNMENT TO SUPERVISE THE IMPLEMENTATION OF THE ATLANTIC COUNTY SOLID WASTE MANAGEMENT PLAN

The Atlantic County Board of Chosen Freeholders is responsible for the preparation of a district Solid Waste Management Plan for Atlantic County. The Board of Chosen Freeholders has designated the Atlantic County Department of Regional Planning and Development (County Planning), the Atlantic County Solid Waste Advisory Council (SWAC) and the Atlantic County Utilities Authority (ACUA) to supervise the implementation of the district plan as identified below.

Pursuant to the Adopted Atlantic County Administrative Code, Chapter 4, Article XI, Section 459 D, Ordinance No. 23-1981, the Solid Waste Advisory Council was created within the Atlantic County Department of Regional Planning and Development to provide advisory assistance during the development and formulation of the Solid Waste Management Plan (and any and all amendments thereto), and to be involved in the biennial review and any policy decisions regarding the collection and disposal of solid waste in the county. SWAC is granted authority to request information concerning solid waste activities within the county, to consider any matter related to solid waste within the county, to make recommendations for improvement of solid waste programs and facilities within the county, and to prepare an annual report on the state of such plans, programs and facilities as deemed necessary by the County Executive.

The Atlantic County Board of Chosen Freeholders created the Atlantic County Utilities Authority (ACUA), and gave the ACUA responsibility for implementing certain aspects of the Atlantic County Solid Waste Management Plan. Under Ordinance No. 7-88, the ACUA was given complete responsibility for implementing the Atlantic County Solid Waste Management Plan.

The Atlantic County Department of Regional Planning and Development (County Planning) and the Atlantic County Solid Waste Advisory Council (SWAC) will continue to supervise the implementation of the Atlantic County Solid Waste Management Plan. County Planning and SWAC will continue to be responsible for the preparation of an Atlantic County Solid Waste Management Plan and County Recycling Plan consistent with the Solid Waste Management Act, the New Jersey Statewide Mandatory Source-Separation and Recycling Act, and the Statewide Solid Waste Management Plan.

The adoption of this plan update confirms these designations.

B. ESTIMATION OF THE QUANTITY OF SOLID WASTE GENERATED WITHIN ATLANTIC COUNTY

The New Jersey Statewide Solid Waste Management Plan requires an estimation of the quantity of solid waste anticipated to be generated within Atlantic County for a ten-year period commencing with the adoption of the Atlantic County's updated Solid Waste Management Plan.

Waste generation has been projected to the year 2019, using 2006 actual data for the base year. Waste figures include both waste disposed at the ACUA landfill, and the portion of waste which is disposed out-of-county. For the purposes of this plan, Type 10 waste is considered to be MSW waste.

In order to estimate the quantity of solid waste to be generated within Atlantic County for a ten year period, this Solid Waste Management Plan Update incorporates the South Jersey Transportation Planning Organization published projections of population in its 2006 Population and Employment 2000-2025 Report. Table B-1 uses these population estimates for Atlantic County and calculates, in five year increments, the average annual population increase from 2005 to 2010, 2010 to 2015, and 2015 to 2020.

Table B-2 applies the average annual population increase for Atlantic County to the 2006 actual solid waste disposal figures as described below, expecting that solid waste generation rates will increase in direct relation to population change.

A per capita waste generation rate was determined for total, MSW, and non-MSW waste. This per capita rate was then applied to the expected annual population increase in order to determine the total generation, MSW generation, and non-MSW generation tonnages for the years 2007-2019. (The per capita rate was held constant for this time period). The table then calculates the decreasing solid waste disposal tonnages and increasing recycling tonnages necessary each year in order to achieve the recycling goals by 2019. This is a forecast of tonnage levels to be achieved by implementing this Plan Amendment.

Based on the calculations described above, it is estimated that Atlantic County will generate a total of 1,040,962 tons of waste in the year 2019.

Table B-3 shows projected MSW growth through 2019, with MSW generation tonnages based on projected population growth only, and MSW disposal and recycling tonnages based on current trends. Table B-3 reflects the status quo projected growth in MSW disposal tonnages, if no changes were to be implemented.

The first row of figures for the year 2019 in Table B-3 shows projected MSW generation based on population growth alone. The second row of figures for the year 2019 provides projected generation based on attaining the MSW recycling goal stipulated in this Plan Amendment. The difference between the forecasted amount of MSW recycling in 2019 (139,738 tons) and the MSW recycling tonnage required to achieve the 50% recycling goal (233,651 tons) is 93,913 tons.

| TABLE B-1 ATLANTIC COUNTY, NEW JERSEY Projected Population Growth 2005 - 2020 | | | | | | | | | | |
|--|---------------------------------|---------------------------------|---------------------------------|---------------------------------|-------------------------------------|--------------------------------------|-------------------------------------|--------------------------------------|-------------------------------------|--------------------------------------|
| Municipality | Projected Population 2005 | Projected Population 2010 | Projected Population 2015 | Projected Population 2020 | POPULATION % CHANGE 2005-2010 | AVG. ANNUAL % CHANGE 2005-2010 | POPULATION % CHANGE 2010-2015 | AVG. ANNUAL % CHANGE 2010-2015 | POPULATION % CHANGE 2015-2020 | AVG. ANNUAL % CHANGE 2015-2020 |
| Absecon | 7,989 | 8,132 | 8,345 | 8,542 | 1.8 | 0.36 | 2.6 | 0.52 | 2.36 | 0.47 |
| Atlantic City | 40,368 | 40,680 | 40,772 | 40,852 | 0.8 | 0.15 | 0.2 | 0.05 | 0.20 | 0.04 |
| Brigantine | 12,861 | 12,919 | 13,057 | 13,182 | 0.5 | 0.09 | 1.1 | 0.21 | 0.96 | 0.19 |
| Buena Borough | 3,848 | 3,859 | 3,856 | 3,857 | 0.3 | 0.06 | -0.1 | -0.02 | 0.03 | 0.01 |
| Buena Vista Twp. | 7,539 | 7,672 | 7,773 | 7,865 | 1.8 | 0.35 | 1.3 | 0.26 | 1.18 | 0.24 |
| Corbin City | 531 | 574 | 622 | 669 | 8.1 | 1.62 | 8.4 | 1.67 | 7.56 | 1.51 |
| Egg Harbor City | 4,497 | 4,471 | 4,444 | 4,446 | -0.6 | -0.12 | -0.6 | -0.12 | 0.05 | 0.01 |
| Egg Harbor Twp. | 38,093 | 42,697 | 48,833 | 55,148 | 12.1 | 2.42 | 14.4 | 2.87 | 12.93 | 2.59 |
| Estell Manor | 1,723 | 1,809 | 1,907 | 2,000 | 5.0 | 1.00 | 5.4 | 1.08 | 4.88 | 0.98 |
| Folsom Borough | 1,972 | 1,986 | 1,992 | 1,997 | 0.7 | 0.14 | 0.3 | 0.06 | 0.25 | 0.05 |
| Galloway Twp. | 35,833 | 38,339 | 41,606 | 44,796 | 7.0 | 1.40 | 8.5 | 1.70 | 7.67 | 1.53 |
| Hamilton Twp. | 23,899 | 26,633 | 29,635 | 32,641 | 11.4 | 2.29 | 11.3 | 2.25 | 10.14 | 2.03 |
| Hammononton Twp. | 13,585 | 13,852 | 14,395 | 14,902 | 2.0 | 0.39 | 3.9 | 0.78 | 3.52 | 0.70 |
| Linwood | 7,398 | 7,613 | 7,798 | 7,968 | 2.9 | 0.58 | 2.4 | 0.49 | 2.18 | 0.44 |
| Longport Borough | 1,090 | 1,108 | 1,132 | 1,154 | 1.7 | 0.33 | 2.2 | 0.43 | 1.94 | 0.39 |
| Margate City | 8,666 | 8,997 | 9,349 | 9,677 | 3.8 | 0.76 | 3.9 | 0.78 | 3.51 | 0.70 |
| Mullica Twp. | 6,109 | 6,202 | 6,325 | 6,438 | 1.5 | 0.30 | 2.0 | 0.40 | 1.79 | 0.36 |
| Northfield | 8,025 | 8,333 | 8,596 | 8,839 | 3.8 | 0.77 | 3.2 | 0.63 | 2.83 | 0.57 |
| Pleasantville | 19,032 | 19,209 | 19,296 | 19,374 | 0.9 | 0.19 | 0.5 | 0.09 | 0.40 | 0.08 |
| Port Republic | 1,194 | 1,233 | 1,324 | 1,412 | 3.3 | 0.65 | 7.4 | 1.48 | 6.65 | 1.33 |
| Somers Point | 11,701 | 11,843 | 11,946 | 12,039 | 1.2 | 0.24 | 0.9 | 0.17 | 0.78 | 0.16 |
| Ventnor | 12,737 | 12,777 | 12,728 | 12,733 | 0.3 | 0.06 | -0.4 | -0.08 | 0.04 | 0.01 |
| Weymouth Twp. | 2,325 | 2,384 | 2,439 | 2,489 | 2.5 | 0.51 | 2.3 | 0.46 | 2.05 | 0.41 |
| County Total | 271,015 | 283,322 | 298,170 | 313,020 | 4.5 | 0.91 | 5.2 | 1.05 | 4.98 | 1.00 |

Source: 2030 Demographic Forecasts, prepared by CRBR, June 2006

TABLE B-2
ATLANTIC COUNTY SOLID WASTE GENERATION
Plan Implementation Ten-Year Projection for Solid Waste Disposal and Recycling

| Year | Pop. | Pounds Per Capita Per Day** | | | Disposal | | | Recycling | | | Generation | | | MSW Recycling Goal | Total Recycling Goal |
|-------|---------|-----------------------------|----------------|--------------------|---------------|-------------|-----------------|---------------|-------------|-----------------|---------------|-------------|-----------------|--------------------|----------------------|
| | | Total Generation | MSW Generation | Non-MSW Generation | Total in tons | MSW in tons | Non-MSW in tons | Total in tons | MSW in tons | Non-MSW in tons | Total in tons | MSW in tons | Non-MSW in tons | | |
| 2006* | 273,435 | 18.40 | 8.26 | 10.14 | 442,583 | 288,742 | 153,841 | 475,709 | 123,531 | 352,178 | 918,292 | 412,273 | 506,019 | 30.0% | 51.8% |
| 2007 | 275,877 | 18.40 | 8.26 | 10.14 | 440,643 | 284,884 | 155,779 | 485,752 | 131,007 | 354,745 | 926,395 | 415,871 | 510,524 | 31.5% | 52.4% |
| 2008 | 278,341 | 18.40 | 8.26 | 10.14 | 438,680 | 280,952 | 157,728 | 495,987 | 138,632 | 357,355 | 934,667 | 419,584 | 515,083 | 33.0% | 53.1% |
| 2009 | 280,826 | 18.40 | 8.26 | 10.14 | 436,647 | 276,948 | 159,699 | 506,367 | 146,383 | 359,984 | 943,014 | 423,331 | 519,683 | 34.6% | 53.7% |
| 2010 | 283,334 | 18.40 | 8.26 | 10.14 | 434,543 | 272,850 | 161,692 | 516,892 | 154,261 | 362,631 | 951,435 | 427,112 | 524,324 | 36.1% | 54.3% |
| 2011 | 286,241 | 18.40 | 8.26 | 10.14 | 432,936 | 269,011 | 163,925 | 528,261 | 162,483 | 365,778 | 961,197 | 431,494 | 529,703 | 37.7% | 55.0% |
| 2012 | 289,178 | 18.40 | 8.26 | 10.14 | 431,251 | 265,065 | 166,186 | 539,808 | 170,856 | 368,952 | 971,059 | 435,921 | 535,138 | 39.2% | 55.6% |
| 2013 | 292,145 | 18.40 | 8.26 | 10.14 | 429,485 | 261,009 | 168,476 | 551,537 | 179,385 | 372,152 | 981,022 | 440,393 | 540,628 | 40.7% | 56.2% |
| 2014 | 295,142 | 18.40 | 8.26 | 10.14 | 427,638 | 256,842 | 170,796 | 563,449 | 188,070 | 375,379 | 991,087 | 444,912 | 546,175 | 42.3% | 56.9% |
| 2015 | 298,170 | 18.40 | 8.26 | 10.14 | 425,707 | 252,562 | 173,146 | 575,548 | 196,915 | 378,633 | 1,001,256 | 449,477 | 551,779 | 43.8% | 57.5% |
| 2016 | 301,083 | 18.40 | 8.26 | 10.14 | 423,487 | 248,046 | 175,440 | 587,551 | 205,822 | 381,729 | 1,011,038 | 453,868 | 557,170 | 45.3% | 58.1% |
| 2017 | 304,025 | 18.40 | 8.26 | 10.14 | 421,182 | 243,419 | 177,763 | 599,733 | 214,884 | 384,850 | 1,020,916 | 458,302 | 562,613 | 46.9% | 58.7% |
| 2018 | 306,995 | 18.40 | 8.26 | 10.14 | 418,792 | 238,677 | 180,115 | 612,098 | 224,103 | 387,995 | 1,030,890 | 462,780 | 568,110 | 48.4% | 59.4% |
| 2019 | 309,995 | 18.40 | 8.26 | 10.14 | 416,315 | 233,820 | 182,496 | 624,646 | 233,482 | 391,165 | 1,040,962 | 467,301 | 573,661 | 50.0% | 60.0% |

*Actual Data for 2006

| | |
|------|---------|
| 2020 | 313,023 |
|------|---------|

** Constant per capita generation rate used.

Projected Recycling and Disposal generation rates based on attaining 50% MSW Recycling Rate and 60% Total Recycling Rate by 2019.

**TABLE B-3
ATLANTIC COUNTY
MUNICIPAL SOLID WASTE
STATUS QUO PROJECTION BASED ON POPULATION INCREASES**

| YEAR | POPULATION | TOTAL (lbs/cap/day) | DISPOSAL (lbs/cap/day) | RECYCLING (lbs/cap/day) | DISPOSAL (tons) | RECYCLING (tons) | TOTAL (tons) |
|-------|------------|------------------------|---------------------------|----------------------------|--------------------|---------------------|-----------------|
| 2006 | 273,435 | 8.26 | 5.79 | 2.47 | 288,742 | 123,531 | 412,273 |
| 2007 | 275,877 | 8.26 | 5.79 | 2.47 | 291,512 | 124,358 | 415,871 |
| 2008 | 278,341 | 8.26 | 5.79 | 2.47 | 294,115 | 125,469 | 419,584 |
| 2009 | 280,826 | 8.26 | 5.79 | 2.47 | 296,742 | 126,589 | 423,331 |
| 2010 | 283,334 | 8.26 | 5.79 | 2.47 | 299,392 | 127,720 | 427,112 |
| 2011 | 286,241 | 8.26 | 5.79 | 2.47 | 302,464 | 129,030 | 431,494 |
| 2012 | 289,178 | 8.26 | 5.79 | 2.47 | 305,567 | 130,354 | 435,921 |
| 2013 | 292,145 | 8.26 | 5.79 | 2.47 | 308,702 | 131,692 | 440,393 |
| 2014 | 295,142 | 8.26 | 5.79 | 2.47 | 311,869 | 133,043 | 444,912 |
| 2015 | 298,170 | 8.26 | 5.79 | 2.47 | 315,069 | 134,408 | 449,477 |
| 2016 | 301,083 | 8.26 | 5.79 | 2.47 | 318,147 | 135,721 | 453,868 |
| 2017 | 304,025 | 8.26 | 5.79 | 2.47 | 321,256 | 137,047 | 458,302 |
| 2018 | 306,995 | 8.26 | 5.79 | 2.47 | 324,394 | 138,386 | 462,780 |
| 2019 | 309,995 | 8.26 | 5.79 | 2.47 | 327,564 | 139,738 | 467,301 |
| 2019* | 309,995 | 8.26 | 4.13 | 4.13 | 233,651 | 233,651 | 467,301 |

*The first row of figures for the year 2019 above shows projected MSW generation based on population growth alone. The second row of figures for the year 2019 provides projected MSW generation based on attaining the 50% MSW Recycling Goal stipulated in this plan amendment.

In this table, the difference between the forecasted amount of MSW recycling tonnage in 2019, (139,738 tons) and the MSW recycling tonnage that will be needed to achieve the 50% Recycling Goal (233,651 tons) is 93,913 tons.

C. INVENTORY OF SOLID WASTE AND RECYCLING FACILITIES

Within Atlantic County there is a combination of both public and private facilities for the disposal and recycling of solid waste. Table C1 identifies the solid waste and recycling facilities located within Atlantic County. This list is compiled from the operating facilities published by the NJDEP – Solid and Hazardous Waste Management Program and has been correlated with the facilities that have been incorporated into the Atlantic County Solid Waste Management Plan via the plan amendment process.

Atlantic County has one (1) solid waste disposal facility: the Atlantic County Utilities Authority (ACUA) Landfill in Egg Harbor Township. It is available to accept all solid waste generated within the County, including waste types 10, 13, 13C, 23, 25, 27 and 27A. The facility is also used as a drop-off location for recyclables and bulky waste, a Class A recycling center, a Class B recycling center for trees and brush, and a Class C composting facility for leaves, grass and brush.

There are two (2) transfer stations located within Atlantic County. The ACUA operates a transfer station as part of its facility in Egg Harbor Township, and Cifaloglio, Inc. operates a transfer station facility in Buena Vista Township.

Both private and municipal service providers operate several “Class B” Recycling Centers within Atlantic County. Class B materials include source-separated concrete, brick, block, asphalt-based roofing scrap, wood, asphalt, trees and tires. Class B Recycling Centers provide for the receipt, processing, transfer and storage of these materials subject to NJDEP approval. These facilities provide for the recycling of these materials rather than disposing of them at the landfill.

In addition, several municipalities operate composting facilities within the County for leaves, grass, and brush. They include Absecon, Egg Harbor Township, Galloway Township and Mullica.

Figure C-1 identifies on a County map the permitted Solid Waste Landfills and Transfer Stations, Figure C-2 identifies the location of permitted Class B Recycling Centers and Figure C-3 identifies the location of the composting facilities within Atlantic County.

RAILROAD FACILITIES

Transportation of solid waste by way of railcars to out-of-state facilities has drawn national attention. Railroads have been used for years to transport waste primarily in the west and mid-west parts of the country. Over the past five years, a number of facilities have been established in New Jersey.

One such facility, owned by Southern Railroad of New Jersey, began operating in Atlantic County in the City of Pleasantville in 2006. In 2006, it was reported that this facility transported 6,965 tons of construction & demolition waste out of the County. However, this facility was never included in the Atlantic County Solid Waste Management Plan nor did it obtain a permit from the NJDEP to operate.

Below is a short synopsis of the legal framework of this issue, followed by a few case summaries that had significant impact on this region and New Jersey. In 1995, Congress enacted the Interstate Commerce Commission Termination Act (Pub. L. 104-88, 109 Stat. 803) codified at 49 U.S.C. §§ 10101 et seq. (the "Act"). The Act granted jurisdiction over transportation by rail carriers that is only by railroad and or by railroad and water when the transportation is under common control, management, or arrangement for a continuous carriage or shipment, to the Surface Transportation Board (STB). 49 U.S.C. 10501(a). (The STB is an independent Federal agency within the Department of Transportation that replaced the Federal

Interstate Commerce Commission and that now performs all the functions that were previously performed by the ICC as of the effective date of the Act.) The Act also granted the STB exclusive jurisdiction over transportation by rail carriers, and "the construction, acquisition, operation, abandonment, or discontinuance of . . . tracks, or facilities, even if the tracks are located, or intended to be located entirely in one State." 49 U.S.C. § 10501(b). Accordingly, the Act preempts State and local regulation over rail carrier construction and operations, but does not preempt the State's important role in enforcing Federal, State and local environmental laws and regulations.

On October 6, 2003, the New Jersey Department of Environmental Protection proposed amendments and new rules to the Solid Waste Management Rules (see 35 N.J.R. 4405) regarding solid waste activities by rail carriers in an effort to comport these rules with the Act. Pursuant to the proposal, rail carriers that transfer containerized or non-containerized solid waste to or from rail cars are exempt from the requirements of Subchapter 2, governing the disposal of non-hazardous solid waste, but are required to comply with the requirements of new Subchapter 2D, governing management of solid waste at rail carrier facilities. The proposal also exempts rail carriers that transfer solid waste to or from rail cars from the regulations that govern the authorization and operation of intermodal container facilities at N.J.A.C. 7:26-3.6.

The issue regarding transportation of solid waste by rail comes down to regulatory control. Previously, those facilities operated by rail carriers were subject to the sole jurisdiction of the federal Surface Transportation Board. ***This law has recently changed.***

In October 2008, the Clean Railroads Act of 2008, H.R. 2095, Title VI was signed into law. The Act, which is a part of a broad law enacted to improve railroad safety, closed the loophole in the Interstate Commerce Commission Act that preempted states and local governments from regulating solid waste transfer stations that are owned or operated by railroads. Under the Act, states now have the authority to enforce environmental laws with respect to existing and proposed solid waste transfer stations.

ATLANTIC COUNTY UTILITIES AUTHORITY (ACUA) APPROVED TRUCK ROUTES

Apart from the regular or routine service operations, every solid waste vehicle for transportation of solid waste shall use the designated routes for access to and from the ACUA Landfill as illustrated in Figure C- 4. The designated routes are: Garden State Parkway, Atlantic City Expressway, State Route 30, State Route 40, U. S. Route 9, County Route 646, which extends from Route 40 East to Route 30 West and has a direct intersection to every designated route exempt Garden State Parkway, County Route 585, County Route 651, County Route 685, County Route 563, and County Route 603, Municipal Doughty Road and Municipal Mill Road.

DIRECTIONS

From Buena Borough, Buena Vista, Weymouth and a part of Hamilton join Route 40 West and go East, connect Route 40 East at Hamilton Mall and bear East At the fourth light make right on Rt. 646 continue till you get to ACUA.

From Garden State Parkway South, take exit 36 to join Rt. 563 and make right on the light of Rt. 646 the landfill is on your right.

Coming from Hammonton, Mullica, Egg Harbor City, Pomona, Galloway and a part of Absecon take Rt. 30 West and make right on Mill Road, make right on Rt. 646, the landfill is on your right.

From Atlantic City, take Rt. 30 West and join Rt. 646, the landfill is on your right. Or you take Rt. 40 East and make right on Doughty Road, the landfill is at the end of the road.

Table C-1

**CAPACITIES AND UTILIZATION OF COMMERCIAL WASTE AND RECYCLING
FACILITIES IN ATLANTIC COUNTY***

| FAC. TYPE | FAC. NAME | FAC. ADDRESS & LOCATION | FAC. BLOCK NUMBER | FAC. LOT NUMBER | FAC. HOURS OF OPERATION | AUTHORIZED WASTE | CAPACITY | AMOUNT UTILIZED | PERCENT UTILIZED |
|----------------------|-----------------------|---|--|--|---|---------------------------------|---|--------------------|-------------------------------|
| Resource Recovery | None | | | | | | | | |
| Landfill | ACUA | 6700 Delilah Rd, Egg Harbor Twp, NJ 08234 609-272-6950 | 603,604,605, 606,607,701, 703,704 | 10-13,1&2,1-5 & 17-19,1&2, 5- 8, 10,01,1- 8&19,3-9 | 7am-4pm Mon. – Fri. 7am-1pm Sat. (summer & winter till noon) | 10, 13, 13c, 23, 25, 27, 27A | 7,793,657 cy (current) w/expansion 12,320,350 cy | 5,755,840 cy | 74% w/ expansion 46% |
| Transfer Station | ACUA | 6700 Delilah Rd, Egg Harbor Twp. NJ 08234 609-272-6950 | 603,604,605, 606,607,701, 703,704 | 10-13,1&2,1-5 & 17-19,1&2, 5- 8, 10,01,1- 8&19,3-9 | 7am-4pm Mon. – Fri. 7am-1pm Sat. (summer & winter till noon) | 10, 13, 13c, 23, 25, 27 | 1,950 tpd' | 1,100 tpd | 59% |
| Transfer Station | Cifaloglio, Inc. | US 54 & 5 th Road, Newtonville, NJ, 08346 609-567-4477 | 606, 607, 608, | 1, 1, 1 | 8am – 5pm Mon. – Fri. 8am – 10 am, Saturday | 10, 13, 13c, 27 | 95 tpd | | |
| Class B | A.E. Stone | 1435 Doughty Road Egg Harbor Twp NJ 08234 609-641-2781 | Pleasantville 109 136 EHT 1036 | 1, 19 55, 56 1, 2 | 7am – 4pm Mon - Sat | A, B&B, B, C, W | 2,075 tpd | 1,000 tpd | 50% |
| Class B | ACUA | 6700 Delilah Rd, Egg Harbor Twp, NJ 08234 609-272-6950 | 603,604,605, 606,607,701, 703,704 | 10-13,1&2,1-5 & 17-19,1&2, 5- 8, 10,01,1- 8&19,3-9 | | TRS, TS, B, W | 130 tpd | 39 tpd | 30% |
| Class B | B&J Recycling | 141 Old Port, Republic Rd, Galloway, NJ, 08205 609-652-2434 | 1171 | 22,01 | 7am – 5 pm Mon. – Fri. 7am – 12pm, Sat. 7am – 5pm Mon. – Fri. 7am – 4pm Saturday | A, B&B, B, C, W | 225 tpd | | |
| Class B | Old Cape Recycling | 3025 Ocean Height Ave Egg Harbor Twp NJ 08234 609-926-6420 | 53-B | 21, 3, 4, 5, 6, & 8 | | A, ABRM, B&B, C, T, TRS, W | 358 tpd | | |
| Class B | Arawak Paving Co. | 7503 Weymouth Rd Hammonton NJ 08037 609-561-4100 | 68 | 3 – 10 | 7am – 3:30pm Mon. – Fri. 7am – 12pm Saturday | C,A | 707 tpd | 700 tpd | 99% |

| | | | | | | | | | |
|---------|--------------------------|--|-----------------------------------|--|--|---------------------------|------------------|-----------------|-----|
| Class B | Iaconelli Contracting | 977 Mills Road Pleasantville NJ 08232 | 190 | 14 | 7am – 4pm Mon. – Fri. | C, A, B&B, W | 105 tpd | 3 tpd | 3% |
| Class B | Penn Jersey Bldg Mats. | 6761 Washington Avenue Egg Harbor Twp NJ 08234 | 2101 | 11 | 7am – 4:30pm Mon. – Fri. 7am – 12 pm, Sat. | C, A, B&B | 455 tpd | | |
| Class B | Anthony Puglisi | 6150 Mill Rd 6106 Black Horse Pike Egg Harbor Twp, NJ 08234 – 9750 | 3301 | 8 & 9 | 8am – 4:30pm Mon. – Fri. 8am – 12:30pm Saturday | C, A, B&B, TRS, TP, TS, W | 750 tpd | | |
| Class B | L. Ferriozzi Concrete | 18 Atlantic Ave Egg Harbor Twp. NJ 08234 | 901 | 16, 33, & 35 – 41 | 8am – 5pm Mon. – Fri. 8am – 12pm Saturday | A, C | 248 tpd | | |
| Class B | Robert T. Winzinger Inc. | Highgate Ave Egg Harbor Twp. NJ | 1504 | 1, 2, 3 | 7am – 5pm Mon. – Sat. | C, B&B | 72 tpd | | |
| Exempt | Absecon City | Mill Road 609-641-0663 | | | | L | 10,000 cy/yr | | |
| Class C | ACUA | 6700 Delilah Rd, Egg Harbor Twp, NJ 08234 | 603,604,605, 606,607,701, 703,704 | 10-13,1&2,1-5 & 17-19,1&2, 5-8, 10,01,1-8&19,3-9 | | L, G, B | 14,147,690 cy/yr | 5,900,227 cy/yr | 42% |
| Exempt | Cummings Compost | 2713 Zion Rd. Egg Harbor Twp. 609-641-0649 | | | | L | 10,000 cy/yr | | |
| Exempt | Egg Harbor Twp | 6120 Mill Road 609-926-4000 | | | | L | 10,000 cy/yr | | |
| Exempt | Galloway Twp | Galloway Rd. 609-652-3700 | | | | L | 10,000 cy/yr | | |
| Exempt | Mullica Twp | 1501 Weekstown Rd 609-561-0064 | | | | L | 10,000 cy/yr | | |

Table C-1 shows the detailed catalog of all solid waste and recycling facilities with their lot and block, street address, including approved waste types and amounts, and hours of operation. There are various abbreviations used in the table which is explained below.

The following abbreviations are used in the table:

SOLID WASTE TYPES AND CLASSIFICATIONS:

10 = Municipal (household, commercial, institutional) waste
13 = Bulky waste
13C = Construction and Demolition waste
23 = Vegetative waste
25 = Animal and Food Processing waste
27 = Dry Industrial waste
27A = Asbestos or Asbestos-Containing waste
27I = Incinerator Ash or Ash-Containing waste

CLASS B and CLASS C RECYCLABLE MATERIALS:

A = Asphalt
ABRM = Asphalt-Based Roofing Material
B = Brush
B&B = Brick and Block
C = Concrete
CWA = Commingled Wood and Aggregate
G = Grass
L = Leaves
PCS = Petroleum-Contaminated Soil
SS = Street Sweepings
SSSW = Source Separated Supermarket Waste
T = Tires
TP = Tree Parts
TRS = Trees
TS = Tree Stumps
W = Wood (unpainted, not chemically-treated)
WC = Wood Chips

CAPACITIES:

cy = cubic yards
cy/yr = cubic yards/year
tpd = tons per day
tpy = tons per year

***SOURCE: Atlantic County Solid Waste and Recycling Management Plan Update, August, 2006.
NJDEP Website**



| ID | SITE NAME | MUNICIPALITY | MATERIALS ACCEPTED |
|----|-----------|---------------------|--------------------------|
| 1 | ACUA | EGG HARBOR TOWNSHIP | 10, 13, 13C, 23, 27, 27A |
| 2 | ACUA | EGG HARBOR TOWNSHIP | 10, 13, 13C, 23, 25, 27 |
| 3 | CIFALOGIO | | 10, 13, 13C, 27 |

Legend

- Municipal Boundary
- Solid Waste Landfill
- Transfer Station
- Garden State Parkway
- Atlantic City Expressway
- State Highways

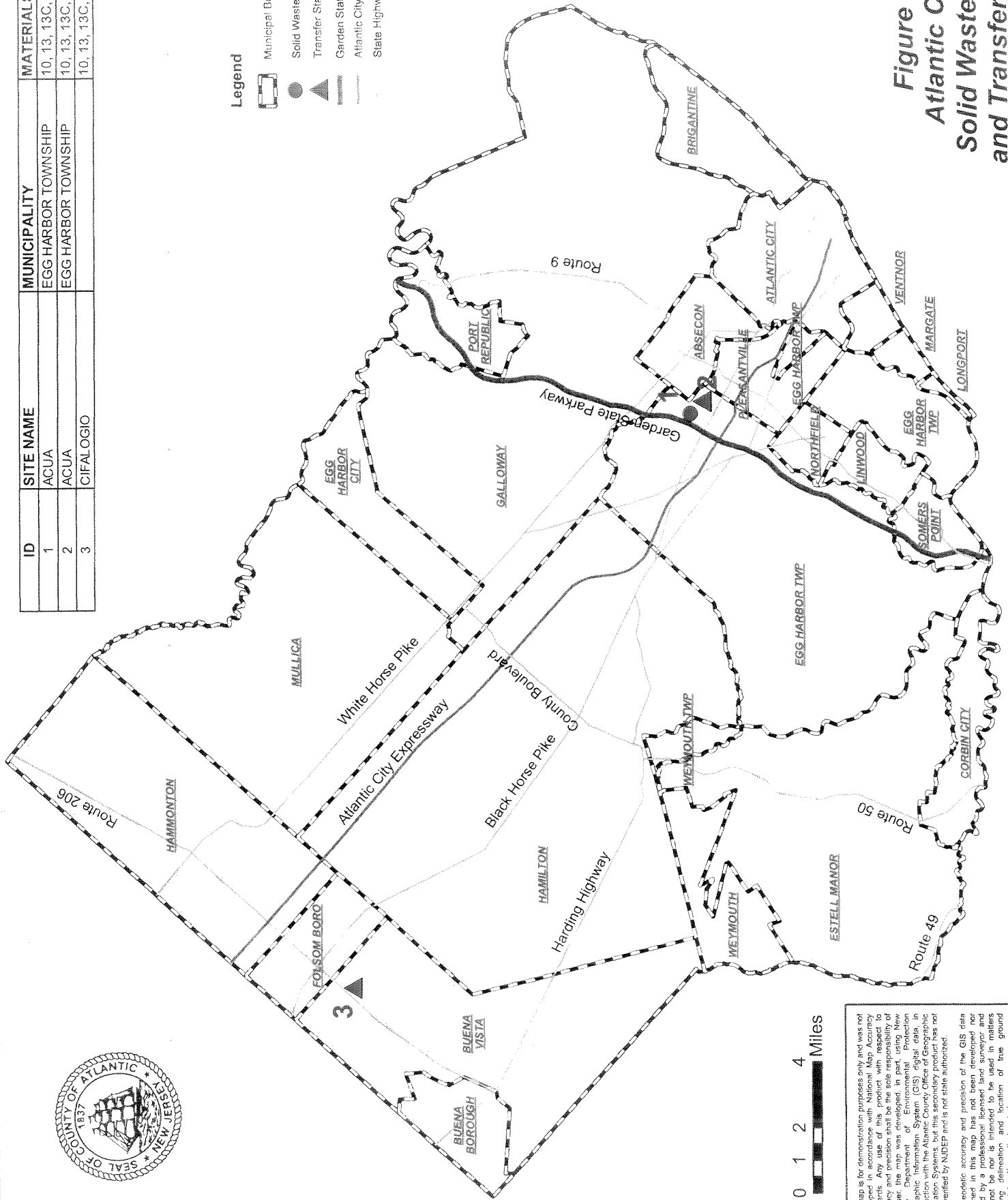
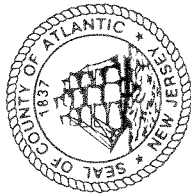


Figure C-1
Atlantic County
Solid Waste Landfill
and Transfer Stations

This map is for demonstration purposes only and was not developed in accordance with National Map Accuracy Standards. The user assumes all responsibility for the accuracy and precision of the map. The map was developed in part using New Jersey Department of Environmental Protection Geographic Information System (GIS) digital data. In conjunction with the Atlantic County Office of Geographic Information Systems, but this secondary product has not been verified by NJDEP and is not state authorized.

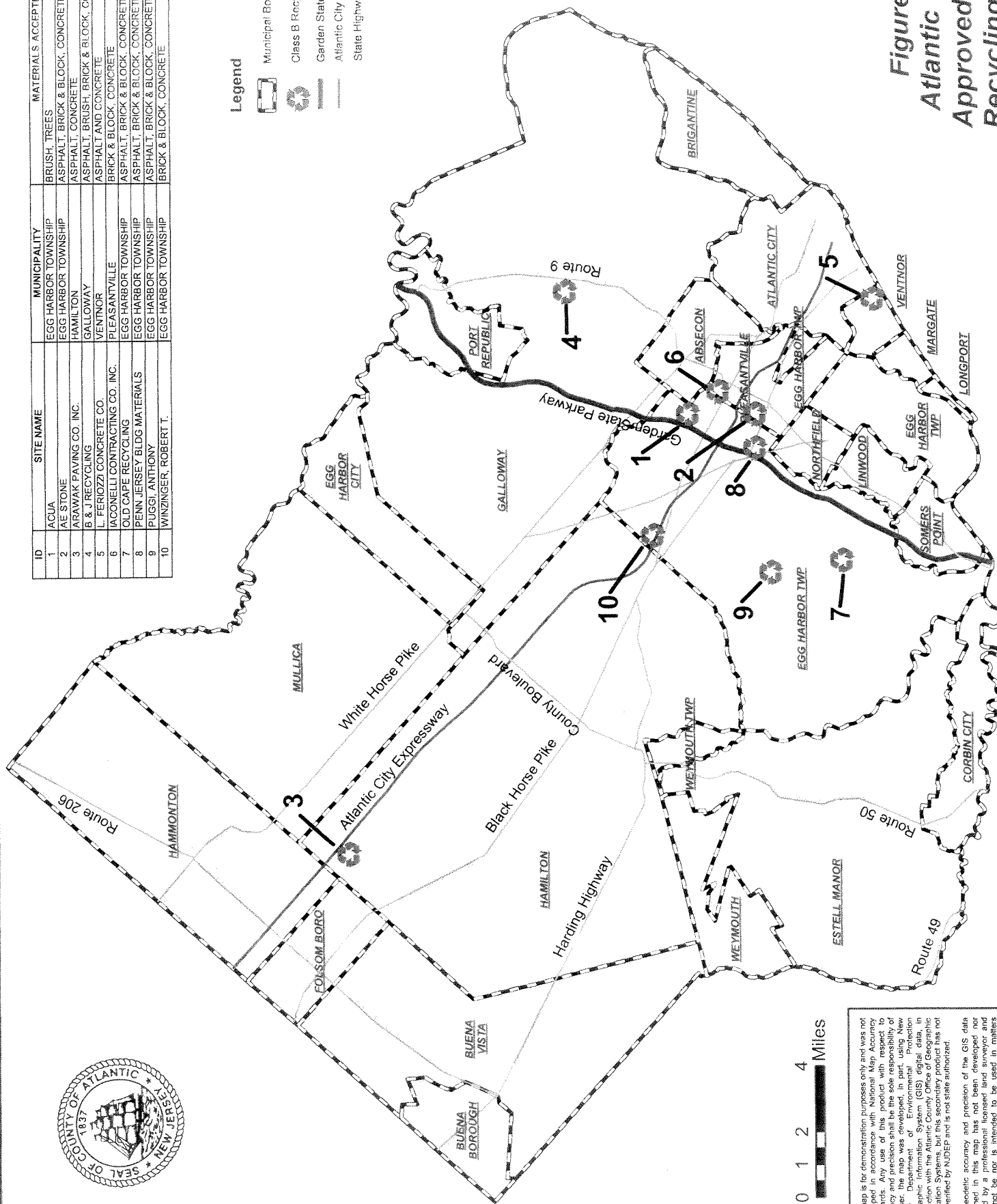
The geodetic accuracy and precision of the GIS data contained in this map has not been developed nor verified by a professional licensed land surveyor and shall not be used for any other purpose without the required delineation and location of the ground horizontal and/or vertical controls.



| ID | SITE NAME | MUNICIPALITY | MATERIALS ACCEPTED |
|----|--------------------------------|---------------------|---|
| 1 | AQUA | EGG HARBOR TOWNSHIP | BRUSH, TREES |
| 2 | AE STONE | EGG HARBOR TOWNSHIP | ASPHALT, BRICK & BLOCK, CONCRETE |
| 3 | ARAWAK PAVING CO. INC. | HAMILTON | ASPHALT, CONCRETE |
| 4 | B & J RECYCLING | GALLOWAY | ASPHALT, BRUSH, BRICK & BLOCK, CONCRETE |
| 5 | L. FERIOZI CONCRETE CO. | VENTNOR | ASPHALT AND CONCRETE |
| 6 | JACONELLI CONTRACTING CO. INC. | PLEASANTVILLE | BRICK & BLOCK, CONCRETE |
| 7 | OLD CAPE RECYCLING | EGG HARBOR TOWNSHIP | ASPHALT, BRICK & BLOCK, CONCRETE, TREES |
| 8 | PENN JERSEY BLDG MATERIALS | EGG HARBOR TOWNSHIP | ASPHALT, BRICK & BLOCK, CONCRETE |
| 9 | PUGGI, ANTHONY | EGG HARBOR TOWNSHIP | ASPHALT, BRICK & BLOCK, CONCRETE, TREES |
| 10 | WINZINGER, ROBERT T. | EGG HARBOR TOWNSHIP | BRICK & BLOCK, CONCRETE |

Legend

- Municipal Boundary
- Class B Recycling Centers
- Garden State Parkway
- Atlantic City Expressway
- State Highways



0 1 2 4 Miles

Figure C-2
Atlantic County
Approved Class B
Recycling Centers

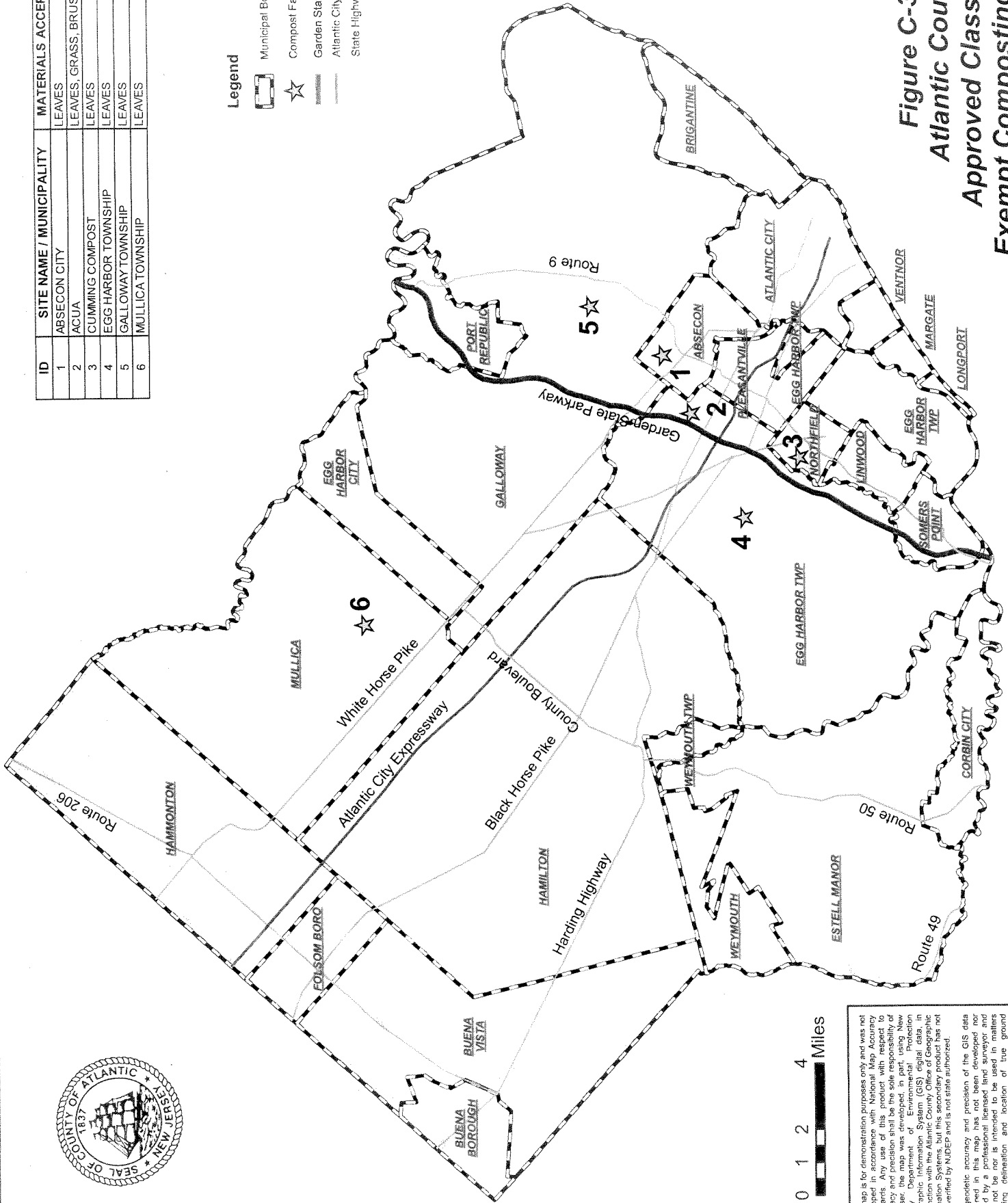
This map is for demonstration purposes only and was not developed in accordance with National Map Accuracy Standards. Any use of this product with respect to accuracy and precision shall be the sole responsibility of the user. The map was developed, in part, using data from the Geographic Information System (GIS) digital data, in conjunction with the Atlantic County Office of Geographic Information Systems, but this secondary product has not been verified by NJDEP and is not state authorized. The geospatial accuracy and precision of the GIS data contained in this map has not been developed nor verified by a professional licensed land surveyor and shall not be nor is intended to be used in matters requiring delineation and location of true ground horizontal and/or vertical controls.



| ID | SITE NAME / MUNICIPALITY | MATERIALS ACCEPTED |
|----|--------------------------|----------------------|
| 1 | ABSECON CITY | LEAVES |
| 2 | ACUA | LEAVES, GRASS, BRUSH |
| 3 | CUMMING COMPOST | LEAVES |
| 4 | EGG HARBOR TOWNSHIP | LEAVES |
| 5 | GALLOWAY TOWNSHIP | LEAVES |
| 6 | MULLICA TOWNSHIP | LEAVES |

Legend

-  Municipal Boundary
-  Compost Facility
-  Garden State Parkway
-  Atlantic City Expressway
-  State Highways

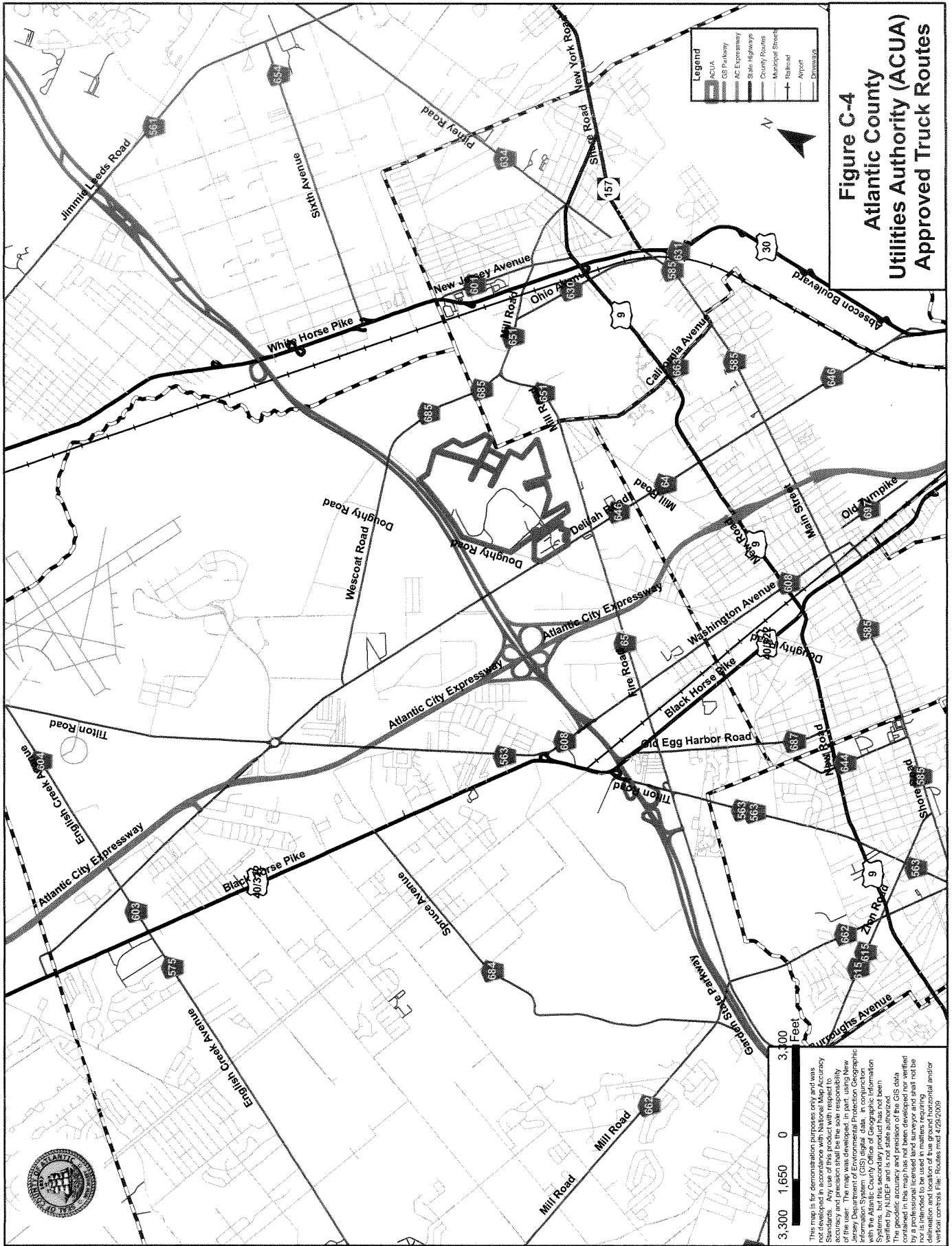


0 1 2 4 Miles

This map is for demonstration purposes only and was not developed in accordance with National Map Accuracy Standards. Any use of this map for legal or official purposes shall be the sole responsibility of the user. The map was developed, in part, using New Jersey Department of Environmental Protection Geographic Information System (GIS) digital data, in conjunction with the Atlantic County Office of Geographic Information Systems, but this secondary product has not been verified by NJDEP and is not state authorized.

The geographic accuracy and precision of the GIS data contained in this map has not been developed nor verified by a professional licensed land surveyor and shall not be used for any purpose requiring horizontal and vertical controls.

Figure C-3
Atlantic County
Approved Class C and
Exempt Composting Facilities



D. AN OUTLINE OF THE SOLID WASTE DISPOSAL STRATEGY TO BE UTILIZED BY THE COUNTY FOR A TEN YEAR PLANNING PERIOD

In accordance with the updated Statewide Solid Waste Management Plan, the Atlantic County Solid Waste Management Plan Amendment reaffirms the use of the solid waste management hierarchy utilized for all waste generated in Atlantic County. The primary elements of this hierarchy include:

- Source Reduction including activities that decrease the quantity and/or toxicity of waste entering the solid waste stream and actions that promote continued product use/reuse;
- Recycling including processes by which materials which would otherwise become solid waste are collected, separated, or processed and returned to the economic mainstream in the form of raw materials or products;
- Other specific recovery or reclamation projects that use or reuse a material that would otherwise become solid waste including projects such as beneficial use, landfill gas recovery and household hazardous waste collection;
- Sustainable landfilling including the employment of innovative technologies to extend the useful life of the existing sanitary landfill.

The County of Atlantic, through a combination of public and private entities, seeks to provide a sufficient volume of disposal capacity and source reduction and recycling opportunities to meet the long-term needs of the County. These solid waste management practices will be done in a manner that is environmentally secure, technically sound, economically responsible and relatively convenient for its users.

A majority of the solid waste generated within Atlantic County is planned for delivery to the ACUA solid waste facilities which currently include: a landfill, a transfer station/material recovery facility, a Class A recycling center, Class B and a Class C recycling center. The ACUA landfill has a current permitted capacity of 7.655 million cubic yards. The ACUA landfill has a current permitted capacity of 14,147,690 cubic yards. The landfill is anticipated to reach capacity in the year 2027.

Atlantic County has developed a market-driven economic strategy to solid waste disposal. Briefly, the ACUA contracts with Atlantic County municipalities, public and private entities and businesses for collection and delivery of acceptable solid waste from the community in return for environmentally sound disposal. Table D-1 indicates which municipalities currently contract with the ACUA. Additionally, the ACUA commits to processing and marketing of designated recyclable materials, providing scheduled household hazardous waste collection events, administration of the Atlantic County Adopt-a-road (litter abatement) program, and conducting recycling education throughout the County.

The ACUA contractually supplies collection services for solid waste, vegetative waste and collection services for designated recyclable materials throughout the Atlantic County. It is the Authority's intent to contract with private and public entities that may need the level of services that are available through the ACUA.

The Authority has demonstrated a continued commitment to reducing costs and increasing revenues for each of the system's facilities consistent with generally accepted practices within the solid waste industry. These include enhancements to the landfill gas-to-energy system, the continuous weekday operations of the landfill, and waste diversion to out-of-county facilities during peak summer months to reduce the need for seasonal staffing for landfill operations.

The Authority continues to demonstrate its commitment to explore, evaluate and implement innovative operations and technologies to increase the overall long term efficiency and optimization of the landfill and other solid waste components. As new technologies emerge, the Authority is dedicated to continue to explore, evaluate and implement the most environmentally sound and financially viable options for Atlantic County.

Municipalities that do not contract with the ACUA for solid waste collection services can deliver acceptable solid waste to the ACUA if they choose. ACUA monitors which municipalities are utilizing the solid waste system and which are not. Municipalities that chose to utilize another facility for solid waste disposal are given the opportunity to participate in the associated recycling, household hazardous waste, litter, or bulky waste programs on a contractual or fee basis.

A portion of the solid waste generated within Atlantic County is disposed of out-of-county. Table D-2 shows an estimate of the types and quantities of waste disposed of out-of-county, including waste which left by rail. The table reflects available data which was reported to the State; some waste which leaves the county is not reported by the municipality of origin.

These strategies will be implemented through the enforcement, education and incentives suggested in the Recycling Plan element of this Plan update.

TABLE D-1
COLLECTION PERFORMED BY ATLANTIC COUNTY UTILITIES AUTHORITY
ATLANTIC COUNTY UTILITIES AUTHORITY
2006 ANNUAL REPORT

| Municipality | Municipal Waste | Recyclable Materials | Bulky Waste | Yard Waste |
|------------------|-------------------|----------------------|-------------------|------------|
| Absecon | Yes | Yes | Yes | Yes |
| Atlantic City | No | Yes | No | No |
| Brigantine | Yes | Yes | Yes | Yes |
| Buena Boro | No | Yes | No | No |
| Buena Vista Twp. | No | Yes | No | Yes |
| Corbin City | No | No | No | No |
| Egg Harbor City | Yes | Yes | Yes | Yes |
| Egg Harbor Twp. | No | Yes | No | No |
| Estell Manor | No | Yes | No | No |
| Folsom | No | Yes | No | No |
| Galloway Twp. | No | Yes* | No | No |
| Hamilton Twp. | No | Yes | Yes | Yes |
| Hammonton | No | Yes | No | No |
| Linwood | No | Yes | No | Yes |
| Longport | Yes | Yes | Yes | Yes |
| Margate | Yes ⁺ | Yes | Yes | No |
| Mullica Twp. | Yes ^{**} | Yes | Yes ^{**} | No |
| Northfield | No | Yes | No | Yes |
| Ocean City | No | Yes | Yes | Yes |
| Ocean Township | No | Yes ⁺⁺ | No | No |
| Pleasantville | Yes ⁺ | Yes | Yes | No |
| Port Republic | No | No | No | No |
| Somers Point | No | Yes | No | No |
| Ventnor | No | Yes | No | Yes |
| Weymouth | No | Yes | No | Yes |

⁺ Authority has collection contracts for municipal and condominium waste in this municipality.

⁺⁺ Authority has collection contracts for this municipality in Ocean County beginning July 14th, 2008.

* Waste management customers and Earth Tech customers only.

^{**} Authority provides service to public drop-off locations, not residential collection.

TABLE D-2

Atlantic County Solid Waste Disposed Out Of County in 2006

all figures in tons

| FACILITY | 10 | 10R | 13 | Type Material | | | | 23 | 25 | 27 | 27A | 27R |
|--|------------------|-----------------|------------------|-----------------|---------------|-------------|--------------|-----------------|--------------|--------------|-------------|-------------|
| | | | | 13C | 13R | 23 | 25 | | | | | |
| Cumberland County | 62,369.00 | 0.00 | 10,127.00 | 0.00 | 0.00 | 0.00 | 1.00 | 1,110.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| *ACUA Shipped MSW to CCIA in 2006 | | | | | | | | | | | | |
| | 24,694.37 | | | | | | | | | | | |
| Cumberland County | 37,674.63 | 0.00 | 10,127.00 | 0.00 | 0.00 | 0.00 | 1.00 | 1,110.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Salem County | 18,434.00 | 0.00 | 347.00 | 1,354.00 | 0.00 | 0.00 | 9.00 | 0.00 | 72.00 | 0.00 | 0.00 | 0.00 |
| Burlington County | 16,262.00 | 0.00 | 24.00 | 16.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Mercer Group International | 0.00 | 0.00 | 147.00 | 108.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Gloucester County | 3.00 | 0.00 | 15.00 | 96.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Cape May County | 88.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Somerset BRI TS/MRF | 36.00 | 0.00 | 10.00 | 5.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Recycling (Mazza) Tech | 0.00 | 0.00 | 32.00 | 14.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Warren County | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Southern Railroad NJ/Pvile | 0.00 | 0.00 | 0.00 | 6,965.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PCFA Pensauken LF | 0.00 | 0.00 | 0.00 | 390.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Camden County | 36.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Cycle Chem Ins | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 34.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Republic Svc of NJ/Tinton Falls | 0.00 | 0.00 | 0.00 | 2.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Republic Svc of NJ/Mt Laurel | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Canadian Pacific Railway/TLA Newark | 0.00 | 0.00 | 0.00 | 6.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Freehold Cartage Inc TS | 0.00 | 0.00 | 4.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Onyx Waste Service | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Sub Totals (Tons) | 72,533.63 | 0.00 | 10,707.00 | 8,958.00 | 1.00 | 0.00 | 10.00 | 1,144.00 | 72.00 | 0.00 | 0.00 | 0.00 |
| ACUA | 10 | 10R | 13 | 13C | 13R | 23 | 25 | 27 | 27A | 27R | | |
| | 257,722.00 | 0.00 | 20,276.00 | 117,826.00 | 0.00 | 2.00 | 10.00 | 3,112.00 | 294.00 | 0.00 | | |
| ** Cifaloglio tonnage is assumed to go to CCIA. Removing this tonnage. | | | | | | | | | | | | |
| Cifaloglio Inc T/S | 11,353.00 | 1,737.00 | 3,721.00 | 3,062.00 | 615.00 | 0.00 | 0.00 | 25.00 | 18.00 | 13.00 | | |

E. PROCEDURES TO AMEND THE ATLANTIC COUNTY SOLID WASTE MANAGEMENT PLAN TO INCLUDE SOLID WASTE AND RECYCLING FACILITIES

No solid waste or recycling center shall receive, store, process, or transfer any Solid Waste material or Class A, Class B, Class C, or Class D recyclable material prior to inclusion in the Atlantic County Solid Waste Management Plan, and without the prior written approval of the New Jersey Department of Environmental Protection.

1. Definition of a Class A, Class B, Class C, or Class D recyclable material:

“Class A recyclable material” means a source-separated non-putrescible recyclable material specifically excluded from NJDEP approval prior to receipt, storage, processing or transfer at a recycling center in accordance with N.J.S.A. 13:1E-99.34b, which material currently includes source-separated non-putrescible metal, glass, paper, plastic containers, and corrugated and other cardboard.

“Class B recyclable material” means a source-separated recyclable material which is subject to NJDEP approval prior to receipt, storage, processing, or transfer at a recycling center in accordance with N.J.S.A. 13:1E-99.34b, and which includes but is not limited to the following:

- a. source-separated, non-putrescible, waste concrete, asphalt, brick, block, asphalt-based roofing scrap and wood waste;
- b. source-separated, non-putrescible, waste materials other than metal, glass, paper, plastic containers, corrugated and other cardboard resulting from construction, remodeling, repair and demolition operations on houses, commercial building, pavements, and other structures;
- c. source-separated whole trees, tree trunks, tree parts, tree stumps, brush and leaves provided that they are not composted;
- d. source-separated scrap tires; and
- e. source-separated petroleum contaminated soil.

“Class C recyclable material” means a source-separated compostable material which is subject to NJDEP approval prior to the receipt, storage, processing, or transfer at a recycling center in accordance with N.J.S.A. 13:1E-99.34b, and which includes, but is not limited to, organic materials such as:

- a. source-separated food waste;
- b. source-separated vegetative food waste; and
- c. source-separated yard trimmings.

“Class D recyclable material: means, but is not limited to, the following:

- a. used oil, as defined by N.J.A.C. 7:26A-1.3, which is subject to NJDEP approval prior to the receipt, storage, processing, or transfer at a Class D recycling center in accordance with N.J.S.A. 13:1E-99.34b, and which includes, but is not limited to, the following:

1. used lubricant oil;
 2. used coolant oil (non-contact heat transfer fluids);
 3. used emulsion oil; and,
 4. any other synthetic oil or oil refined from crude oil, which has been used, and as a result of such use is contaminated by physical or chemical impurities;
- b. batteries as defined by N.J.A.C. 7:26A-1.3;
 - c. pesticides as defined by N.J.A.C. 7:26A-1.3;
 - d. thermostats as defined by N.J.A.C. 7:26A-1.3;
 - e. latex paints;
 - f. oil base paints from household or small quantity generators; and
 - g. antifreeze.
2. Definition of Solid Waste (N.J.A.C. 7:26-1.6)

A solid waste is any garbage, refuse, sludge, or any other waste material except it shall not include the following:

 - a. Source-separated food waste collected by livestock producers, approved by the State Department of Agriculture, who collect, prepare, and feed such wastes to livestock on their own farms;
 - b. Recyclable materials that are exempted from regulation pursuant to N.J.A.C. 7:26A;
 - c. Materials approved for beneficial use or categorically approved for beneficial use pursuant to N.J.A.C. 7:26-1.7(g);
 - d. Spent sulfuric acid which is used to produce virgin sulfuric acid, provided at least 75 percent of the amount accumulated is recycled in one year; or
 - e. Dredged material, from New Jersey's coastal or tidal waters, which is regulated under the provisions of the following statutes: New Jersey Water Pollution Control Act (N.J.S.A. 58:10A-1 et seq.), Waterfront Development Law (N.J.S.A. 12:5-3 et seq.), Riparian Interests (N.J.S.A. 12:3-1 et seq. and 18:56-1 et seq.), Federal Water Pollution Control Act of 1972 as amended by the Clean Water Act of 1977 (33 U.S.C 1251), and Federal Coastal Zone Management Act (16 U.S.C. 1451 et seq.) and/or other relevant statutes and implementing regulations.
 3. Any "other waste material" is any solid, liquid, semi-solid or contained gaseous material, including, but not limited to, spent material, sludge, by-product, discarded commercial chemical products, or scrap metal resulting from industrial, commercial, mining or agricultural operations, from community activities, or any other material which has served or can no longer serve its original intended use, which:

- a. Is discarded or intended to be discarded; or
 - b. Is accumulated, stored or physically, chemically or biologically treated prior to, or in lieu of, being discarded;
 - c. Is burned for energy recovery;
 - d. Is applied to the land or placed on the land or contained in a product that is applied to or placed on the land in a manner constituting disposal; or
 - e. Is recycled.
4. A material is also a solid waste if it is "disposed of" by being discharged, deposited, injected, dumped, spilled, leaked or placed into or on any land or water so that such material or any constituent thereof may enter the environment or be emitted into the air or discharged into ground or surface waters.
5. The definition of solid waste contained in this section applies only to wastes that are not also hazardous for purposes of the Department's hazardous waste regulations set forth at N.J.A.C. 7:26G.

PROCEDURES TO AMEND THE ATLANTIC COUNTY SOLID WASTE MANAGEMENT PLAN

The following procedures identify an applicant's requirements for consideration for an amendment to the Atlantic County Solid Waste Management District plan.

- 1. The applicant shall request and hold a pre-application meeting with the Atlantic County Department of Regional Planning & Development and the Atlantic County Board of Health to discuss the proposed amendment.
- 2. The applicant shall prepare an application which shall include the following:
 - a. A completed application form. (Schedule A, attached)
 - b. A disclosure statement listing, by name, address and telephone number all persons owning five percent or more of corporation stock in the recycling center and/or solid waste facility, or a listing of the general and limited partners where applicable. The owner or operator of the recycling center and/or solid waste facility shall identify any intra-corporate relationships between the proposed facility and any solid waste hauler or disposal operation registered with the State.
 - c. A site plan shall be prepared which shall include the following information prepared by and signed by a New Jersey Licensed Professional Engineer.
 - i. Key map showing location of property on a U.S.G.S. Quadrangle map.
 - ii. Property survey showing outbound property lines, existing features and topography of the property signed and sealed by a New Jersey licensed Land Surveyor. Block and lot, acreage and bearings and distances along the property lines are to be identified.

- iii. Location of all existing and proposed buildings, equipment, access roads, stormwater facilities, internal circulation patterns of traffic flows, etc. related to the receipt, storage, processing and transfer of all unprocessed and processed recyclable materials and/or solid waste.
 - iv. Location of environmental features within ½ mile of the site, which include, but are not limited to, freshwater wetlands and applicable buffers, streams, FEMA flood prone areas, soils, surface waters, water supply wells and reservoirs.
 - v. Tax map showing block and lots of the property and property owners within 200 feet of the site.
 - vi. Location of sensitive receptors (hospitals, schools, playgrounds, homes etc) within ½ mile of the property.
 - vii. Location of municipal zoning and land uses within ½ mile of the property.
 - viii. A listing of all materials to be received, stored, processed and transferred at the facility.
 - ix. Location of, size and quantities of materials to be stockpiled at the facility.
 - x. Indicate the routing of vehicles between the facility and all nearby roadways servicing the site. Identify the traffic flow within the site and the provisions to ensure a safe and efficient vehicular and pedestrian circulation, parking, loading and unloading. Include site access controls to be employed.
 - xi. Provide topographic contours and identify the direction of water runoff both on-site and off-site and accommodations to retain same.
- d. A written report which shall be provided and shall include:
- i. A description of existing and proposed facility operations, including: processes and operations contemplated by the amendment; NJDEP Type(s) of materials which are or shall be stored, handled, processed and/or transported; proposed hours of operations, proposed tonnage limits, stated in tons per day, along with an estimate of vehicles that will enter and/or exit the site;
 - ii. For facilities located under the jurisdiction of the Pinelands Commission, proof of compliance with the Pinelands Protection Act and Comprehensive Management Plan shall be provided.
 - iii. For facilities located under the jurisdiction of the Coastal Area Review Zone, proof of compliance with the Coastal Area Facilities Review Act shall be provided.
 - iv. A statement of how the applicant will comply with operational standards and general rules for recycling centers.
 - v. A statement of economic feasibility of proposed amendment shall be provided with discussion of the needs and markets which will be serviced by the proposed facility.

- vi. Describe the need/relationship of the amendment with the State and County Solid Waste Management Plan. Support with projections of waste generation within the area to be served and the capacity of existing and proposed facilities in the area to be served.
- vii. Identify any noise, water, air impacts which may be associated with the facility along with any proposed plan to mitigate such impacts;
- viii. Identify the current municipal zoning of the property and current land uses/improvements located upon the facility site. A written description of all land uses within 300 feet of the proposed facility's property boundary and the proposed facility's impact on these surrounding land uses;
- ix. A Traffic Impact Statement which describes the transportation network that will service the facility, truck routes, site access capacity, truck flow patterns expressed in daily peak hour volumes, off peak hour volumes levels of service and daily number of trips;
- x. Anticipated markets that will be served and a description of end uses or disposal plans;
- xi. Identify all stockpile areas, processing areas and existing/proposed property buffers.
- xii. If applicable, proof that an agreement has been established with the host community regarding payment of host community benefits;
- xiii. A copy of any prior solid waste or recycling center permit or approval issued by the County and/or the NJDEP concerning such existing or prior facilities operated by the applicant.
- ix. A copy of any Consent Order, Administrative Order, Penalty Notice, or order entered in any Municipal or Superior Court concerning existing or prior facilities operated by the applicant. If a copy is not available, a summary of the same shall be provided.
- x. Describe the inspection procedure to be utilized for material delivered to the facility.
- xi. Identify the recording keeping procedures for accepting as well as transferring materials off site. Provide a statement that the owner and/or operator agrees to provide the host municipality's recycling coordinator with copies of all monthly tonnage reports it is required to provide to the NJDEP.
- e. The applicant shall provide a copy of the application to the governing body of the host municipality. The applicant shall formally request in writing that the governing body of the host municipality adopt a resolution setting forth its position relative to the proposed amendment.

For a Class A Recycling facility the applicant shall obtain a site plan review and approval from the host municipality's planning and/or zoning board. A copy of the resolution from the planning and/or zoning board shall be provided.

- f. An application fee of \$500 payable to the County of Atlantic is submitted to the Atlantic County Department of Regional Planning & Development.

TIME FRAMES FOR REVIEW

1. Within sixty (60) days of receipt of an application for an amendment to the Atlantic County Solid Waste Management Plan, the Atlantic County Department of Regional Planning & Development shall review the application for administrative and technical completeness and issue a letter to the applicant indicating the status of the application.
2. If the application is deemed incomplete, the Atlantic County Department of Regional Planning & Development shall notify the applicant in writing the deficiencies in the application. The sixty (60) day review period as identified in (1) above will begin once a revised application is received.
3. If the application is deemed complete, the Atlantic County Department of Regional Planning & Development shall notify the applicant in writing that the application is complete and shall schedule within sixty (60) the application before the Atlantic County Solid Waste Advisory Council (SWAC).
4. The applicant will be required to attend a minimum of two (2) SWAC meetings. The first meeting will involve a presentation of the proposed amendment by the applicant to the SWAC members.
5. A second meeting before SWAC will be scheduled 90 days following the initial SWAC presentation. At this meeting the SWAC members will adopt a Resolution to the Atlantic County Board of Chosen Freeholders recommending an approval or disapproval of the proposed amendment. SWAC shall at a minimum consider the application presented by the applicant, the Fact Sheet and Staff Analysis, the resolution provided by the host municipality along with any testimony offered by the general public.
6. Within ninety (90) days of the adoption of the SWAC Resolution, the Atlantic County Board of Chosen Freeholders will schedule a date for public hearing to consider the proposed amendment by a Freeholder Ordinance. Upon notification that the application is to be considered by the Board of Chosen Freeholders the applicant shall publish two (2) notices of the proposed application, once each week for two consecutive weeks, in a newspaper of general circulation in the host municipality. The second publication date being not less than 10 calendar days prior to the public hearing date. For the purposes of determining weekly publication, Sunday is considered the first day of the week, in conformance with N.J.S.A. 13:1E-23. A notice shall include the following:
 - a. name of the proposed facility, the name of the owner or operator, and the nature of the project;
 - b. lot and block number of the site location;
 - c. generally recognized address of the site;
 - d. location of the depositories for the inspection of a complete project description and any supporting documents; and,
 - e. statement that written comments on the project will be accepted by the Atlantic County Department of Regional Planning & Development for a period of 30 days from the date of first notice.

7. The applicant shall forward a copy of the public notice to the Clerk of the county Freeholder Board, the County Solid Waste Coordinator, the Atlantic County Department of Regional Planning & Development and the host municipality upon its publication.
8. The Atlantic County Board of Chosen Freeholders shall submit to the NJDEP a plan amendment which shall include the following:
 - a. One copy of the adopting ordinance or resolution;
 - b. Twenty copies of the plan amendment;
 - c. One copy of the public hearing transcript and any substantive comments submitted to the county or district or designated plan implementation agency (ACUA) prior to the close of any stated comment period;
 - d. One copy of the public notice accompanied by an affidavit of publication issued by the publishing newspaper; and
 - e. For any plan amendment which proposes to incorporate a facility site, twenty copies of an 8 ½ x 11 inch tax map identifying the location of the site, the street address, and the lot and block numbers.

The plan amendment above shall be submitted to:

New Jersey Department of Environmental Protection
Division of Solid and Hazardous Waste
Bureau of Recycling and Planning
P.O. Box 414
Trenton, NJ 08625-0414

Upon receipt of a plan amendment, the NJDEP shall review the plan amendment for completeness. Within 10 working days of receipt of the plan amendment, the NJDEP shall notify, in writing, the entity that submitted the plan amendment whether the plan amendment is complete or incomplete.

The NJDEP shall submit a copy of a complete plan amendment to the Advisory Council on Solid Waste Management in the department, and to the agencies, bureaus and divisions in the NJDEP identified at N.J.S.A. 13:1E-23 for review and recommendations.

Upon review of the plan amendment and upon receipt of recommendations provided, the NJDEP shall approve, modify, or reject a plan amendment within 150 calendar days of receipt of a complete plan amendment and shall certify such determination to the Atlantic County Board of Chosen Freeholders. If the NJDEP takes no action on a complete plan amendment within 150 calendar days, the plan amendment shall be deemed approved.

SCHEDULE A
ATLANTIC COUNTY SOLID WASTE MANAGEMENT PLAN AMENDMENT REQUEST
APPLICATION FORM

1. APPLICANT: _____

Street Address: _____ City: _____

State: _____ Zip Code: _____ Tele: _____

(If Partnership or Corporation attach list of names and addresses of owners with a
10% or greater interest)

2. PROPERTY OWNER: _____

Street Address: _____ City: _____

State: _____ Zip Code: _____ Tele: _____

(If Applicant is not owner, attach copy of contract of sale, lease, or other
documentation proving standing and authority to make this application)

3. LOCATION OF DEVELOPMENT

Municipality: _____

Tax Map Block: _____ Tax Map Lot: _____

4. AMENDMENT PREPARER: _____

Street Address: _____ City: _____

State: _____ Zip Code: _____ Tele: _____

CERTIFICATION:

I certify that the above statements made by me are true. I am aware that if any of the
foregoing statements made by me are willingly false, I am subject to punishment.

Signature of Applicant: _____ Date: _____

F. ATLANTIC COUNTY DISTRICT RECYCLING PLAN

INTRODUCTION

In 1987, the New Jersey Legislature recognized recycling and source reduction as essential components of sound solid waste management, with the adoption of the Mandatory Source-Separation and Recycling Act (P.L. 1987, Ch. 102). The Act requires recovery of the maximum feasible volume of recyclable materials from the municipal solid waste stream which, at a minimum, is defined as “recycling of at least 50% of the total municipal solid waste stream, including yard waste and vegetative waste” (N.J.S.A. 13:1E-99.13 - 3.b.). In addition, the Act specifies a goal of recycling 60% of State’s total waste stream. To achieve these goals, the Act imposes various duties upon municipalities and counties.

In accordance with the Act, the Atlantic County Board of Chosen Freeholders adopted a Recycling Plan in March, 1988. The 1988 Recycling Plan established a collection system for designated recyclable materials. The plan designated the Atlantic County Utilities Authority as the implementing agency responsible for the development and operation of the County recycling collection and processing system. The plan also required all municipalities to adopt ordinances requiring generators of municipal solid waste to source-separate designated recyclable materials.

The purpose of this plan is to update the County’s March 1988 plan to address changing market conditions, technological improvements and planning mandates established by State government that seek to enhance recycling.

DISTRICT RECYCLING PLAN REQUIREMENTS

The Mandatory Recycling Act, together with the Solid Waste Management Act and Statewide Plan, sets forth specific elements that must be included in each district recycling plan. These elements include:

1. Designation of a District Recycling Coordinator and, by January 2010, designation of a Certified District Recycling Coordinator (N.J.S.A. 13:1E-99.13);
2. Designation of recovery targets in each municipality to achieve the maximum feasible recovery of recyclable material from the municipal solid waste stream which shall include, at a minimum, the recycling of at least 50% of the municipal solid waste stream. In addition to designation of county-wide recovery targets to achieve the maximum feasible recovery of recyclable materials from the total solid waste stream which shall include, at a minimum, the recycling of at least 60% of the total solid waste stream;
3. Designation of the recyclable materials mandated to be source-separated in the residential, commercial and institutional sectors (“designated recyclables”);
4. Designation of the strategies for the collection, marketing and disposition of designated recyclables;
5. Identification of Municipal Responsibilities;
6. A comprehensive enforcement program that: (a) identifies the county and/or municipal entity(ies) responsible for enforcement of the recycling mandates; (b) specifies the minimum number of recycling inspections that will be undertaken by these entities on an annual basis; and (c) details the penalties to be imposed for non-compliance with municipal source-separation ordinances and the district recycling plan.

These requirements are addressed below in more detail.

1. DESIGNATION OF A DISTRICT RECYCLING COORDINATOR

Within Atlantic County, the ACUA is responsible for providing a Certified District Recycling Coordinator by January 2010, who will provide the following services:

- Maintain contact information for all municipal recycling coordinators;
- Maintain records regarding the issuance, by each municipal governing body, of the exemption from source-separation issued pursuant to N.J.A.C. 7:26A-11.5;
- Maintain copies of all municipal recycling ordinances and ensure that the ordinances are consistent with the County Recycling Plan;
- Meet with all municipal recycling coordinators at least annually to determine progress towards meeting the recycling goals of the County Recycling Plan;
- Maintain a current list of retail service stations that have used oil collection tanks on the premises;
- Maintain a current list of used oil collection centers, do-it-yourself used oil collection centers and used oil aggregation points.

2. CURRENT MUNICIPAL RECYCLING AND COUNTY-WIDE RECOVERY TARGETS

Solid waste reporting for 2006 indicates that approximately 920,383 tons of solid waste was generated throughout the municipalities that are located within Atlantic County. Through an aggressive and consistent search for recycling markets and implementation of collection sites and material specific recovery, the County has achieved a 51.7% recycling rate for the total waste stream which equates to 475,709 tons of waste processed at various recycling centers. The 2006 records additionally reveal that municipalities achieved an aggregate solid waste recycling rate of only 27.5% of the total municipal solid waste stream.

A copy of the 2006 Generation, Disposal and Recycling Rates in New Jersey by County as posted on the NJDEP website is attached as Table F-1. The total recycling rates by each municipality in Atlantic County is shown in Table F-2. These figures are further broken down by material type in Appendix D.

County Recovery goals are based upon projected future material generation, existing and developing market conditions and existing and evolving collection programs. In accordance with the Act and State Plan, Atlantic County hereby affirms and adopts the state recovery targets and commits to achieving these targets by 2019. Accordingly, the recovery targets for recyclable materials in the Atlantic County District Solid Waste Management District shall be:

1. A municipal recovery target of 50% of the total municipal solid waste; and
2. A district wide recovery target of 60% of the total solid waste stream.

Table F-1

| 2006 GENERATION, DISPOSAL AND RECYCLING RATES IN NEW JERSEY (Tons) | | | | | | | | | | | | |
|--|------------|---------------------------|-----------|-----------|------------|------------|-----------|--------------|-------|-------|---------|--|
| COUNTY | POPULATION | GENERATION | | DISPOSAL | | | RECYCLING | | | | | |
| | | Disposal and Recycling | 2000 | MSW | BULKY | TOTAL | MSW | MSW | MSW | Total | Total % | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| Atlantic | 252,552 | 920,383 | 321,432 | 123,242 | 444,674.00 | 121,970.75 | 27.5% | 475,708.64 | 51.7% | | | |
| Bergen | 884,118 | 2,111,129 | 708,354 | 288,894 | 997,248.00 | 533,647.27 | 43.0% | 1,113,880.52 | 52.8% | | | |
| Burlington | 423,394 | 1,092,554 | 355,890 | 130,673 | 486,563.14 | 241,147.45 | 40.4% | 605,990.53 | 55.5% | | | |
| Camden | 508,932 | 1,062,179 | 373,754 | 177,439 | 551,193.00 | 171,636.14 | 31.5% | 510,986.03 | 48.1% | | | |
| Cape May | 102,326 | 605,555 | 136,161 | 84,788 | 220,948.38 | 69,669.79 | 33.8% | 384,607.05 | 63.5% | | | |
| Cumberland | 146,438 | 578,717 | 174,498 | 81,358 | 255,856.00 | 113,859.40 | 39.5% | 322,861.21 | 55.8% | | | |
| Essex | 793,633 | 1,803,741 | 588,419 | 258,838 | 847,257.00 | 358,949.21 | 37.9% | 956,483.96 | 53.0% | | | |
| Gloucester | 254,673 | 630,682 | 226,650 | 90,630 | 317,280.29 | 163,547.90 | 41.9% | 313,401.36 | 49.7% | | | |
| Hudson | 608,975 | 1,734,401 | 508,349 | 208,567 | 716,916.00 | 234,992.84 | 31.6% | 1,017,485.15 | 58.7% | | | |
| Hunterdon | 121,989 | 242,696 | 102,725 | 54,286 | 157,011.57 | 28,640.15 | 21.8% | 85,684.20 | 35.3% | | | |
| Mercer | 350,761 | 948,866 | 267,040 | 104,163 | 371,203.52 | 164,448.97 | 38.1% | 577,662.89 | 60.9% | | | |
| Middlesex | 750,162 | 2,662,046 | 614,876 | 331,285 | 946,161.00 | 409,185.97 | 40.0% | 1,715,884.90 | 64.5% | | | |
| Monmouth | 615,301 | 1,629,133 | 538,894 | 238,995 | 777,889.00 | 313,616.82 | 36.8% | 851,244.27 | 52.3% | | | |
| Morris | 470,212 | 1,145,060 | 403,988 | 177,479 | 581,467.00 | 227,138.25 | 36.0% | 563,592.56 | 49.2% | | | |
| Ocean | 510,916 | 1,418,245 | 476,221 | 184,115 | 660,335.85 | 202,560.48 | 29.8% | 757,909.36 | 53.4% | | | |
| Passaic | 489,049 | 1,173,131 | 406,334 | 161,963 | 568,296.73 | 196,939.05 | 32.6% | 604,834.60 | 51.6% | | | |
| Salem | 64,285 | 133,307 | 34,323 | 47,335 | 81,658.14 | 20,663.87 | 37.6% | 51,649.32 | 38.7% | | | |
| Somerset | 297,490 | 805,978 | 280,603 | 154,263 | 434,865.28 | 138,542.51 | 33.1% | 371,112.48 | 46.0% | | | |
| Sussex | 144,166 | 274,769 | 94,967 | 47,955 | 142,921.44 | 34,683.98 | 26.8% | 131,847.36 | 48.0% | | | |
| Union | 522,541 | 1,489,082 | 415,457 | 196,015 | 611,472.00 | 200,602.08 | 32.6% | 877,609.99 | 58.9% | | | |
| Warren | 102,437 | 223,673 | 77,753 | 34,871 | 112,624.27 | 26,801.74 | 25.6% | 111,048.87 | 49.6% | | | |
| TOTAL | 8,414,350 | 22,685,327 | 7,106,689 | 3,177,152 | 10,283,842 | 3,973,245 | 35.9% | 12,401,485 | 54.7% | | | |

NOTES: MSW Recycled tonnages do not include total recycling activities from 8 municipalities which did not report. However, "MSW" and "Total Recycled" tonnage columns includes approximately 2,323 tons to municipalities which did not submit a report but was reported by Class A recycling facilities. Total Recycled with Add-ons also includes tonnage reported by ISRI/AMRA and Class B recycling facilities which was not reported by the municipalities. Totals subject to rounding.

Last Updated on 5/20/2008By DEP/DSHW

NOTES: MSW Recycled tonnages do not include total recycling activities from 8 municipalities which did not report. However, "MSW" and "Total Recycled" tonnage columns includes approximately 2,323 tons to municipalities which did not submit a report but was reported by Class A recycling facilities. Total Recycled with Add-ons also includes tonnage reported by ISRI/AMRA and Class B recycling facilities which was not reported by the municipalities. Totals subject to rounding.

Last Updated on 5/20/2008 By DEP/DSHW

Table F-2

ATLANTIC COUNTY, NEW JERSEY
Total Recycling by Municipality

| | Total Recycled (tons) | | | |
|-----------------|-----------------------|----------------|----------------|----------------|
| | 2003 | 2004 | 2005 | 2006 |
| Absecon | 29,362 | 16,826 | 17,898 | 17,003 |
| Atlantic City | 119,532 | 113,845 | 107,597 | 115,175 |
| Brigantine | 14,129 | 15,693 | 13,116 | 15,105 |
| Buena | 4,224 | 5,007 | 5,793 | 4,535 |
| Buena Vista | 7,540 | 3,680 | 3,447 | 4,638 |
| Corbin City | 458 | 747 | 363 | 204 |
| Egg Harbor City | 6,783 | 4,961 | 6,779 | 10,704 |
| Egg Harbor Twp | 94,360 | 130,794 | 103,652 | 61,777 |
| Estell Manor | 2,967 | 1,401 | 1,283 | 1,460 |
| Folsom | 1,563 | 3,118 | 5,625 | 1,750 |
| Galloway | 54,995 | 47,442 | 54,010 | 57,932 |
| Hamilton | 19,776 | 25,358 | 35,392 | 34,839 |
| Hammonton | 28,282 | 31,714 | 38,506 | 34,240 |
| Linwood | 10,887 | 12,095 | 10,996 | 15,252 |
| Longport | 3,525 | 3,503 | 3,093 | 4,807 |
| Margate | 12,534 | 23,825 | 18,403 | 27,445 |
| Mullica | 6,018 | 3,844 | 3,995 | 4,095 |
| Northfield | 11,518 | 9,444 | 9,484 | 13,415 |
| Pleasantville | 22,284 | 28,184 | 23,438 | 19,875 |
| Port Republic | 1,046 | 973 | 1,494 | 1,697 |
| Somers Point | 22,462 | 19,508 | 19,812 | 17,680 |
| Ventnor | 13,768 | 12,547 | 13,331 | 10,662 |
| Weymouth | 1,652 | 2,451 | 1,613 | 1,419 |
| | | | | |
| Totals | 489,664 | 516,958 | 499,120 | 475,709 |

The County's strategy to increase recycling rates in order to achieve and maintain these recovery targets is set forth below. This strategy entails the following:

- 1) Designation of the materials that must be recycled and continued identification of materials that have potential for increased recovery.
- 2) Continued development of systems for collection and marketing of designated and non-designated (recommended) recyclable materials.
- 3) Continued development of services performed by the public and private industry.
- 4) Educational efforts to increase public awareness of recycling obligations and opportunities along with source reduction strategies.
- 5) Continued development and enforcement of municipal recycling programs and procedures to ensure that generators comply with the Mandatory Source-Separation and Recycling Act.

3. DESIGNATION OF MANDATORY RECYCLABLE MATERIALS

The Mandatory Source-Separation and Recycling Act require all municipal governments to adopt and implement an ordinance to enforce source-separation of recyclable materials that are designated as mandatory by the District Recycling Plan. The Mandatory Recyclable Materials are found in Table F-3. In accordance with the Act's mandates, all solid waste materials generated by residential, commercial and institutional generators are subject to the following:

1. All designated recyclables shall be kept separate from solid waste at the point of generation and shall be recycled.
2. The mixing and transportation of designated recyclables with solid waste is strictly prohibited.
3. All designated recyclables, except for the minimum amounts, are banned from NJDEP regulated solid waste disposal facilities operating within Atlantic County.
4. In accordance with the Mandatory Source-Separation and Recycling Act, no person shall knowingly dispose of a designated recyclable material as solid waste.

The County considers many factors in determining which materials shall be included in the list of designated recyclables, and may from time to time amend the list. Most importantly, the County has and shall continue to mandate the recycling of only those materials for which markets exist. Additional materials may be designated should new recycling markets emerge and, conversely, the County may elect to de-list items for which markets no longer exist.

Additionally, a list of Recommended Recyclable Materials is found in Table F-4.

Table F-3
ATLANTIC COUNTY
MANDATORY RECYCLABLE MATERIALS

| <u>Material</u> | <u>Recycling Options</u> |
|---|--|
| Paper Products: including newspaper (with inserts), magazines, office paper, junk mail, telephone and paperback books, corrugated cardboard, kraft grocery bags and shredded junk mail & office paper. | Curbside collection may be provided by the ACUA, a municipality or a contracted hauler. Materials may be delivered to the ACUA or other recycling facilities for processing. |
| Clear & Colored Glass Bottles/Containers. | Curbside collection may be provided by the ACUA, a municipality or a contracted hauler. Materials may be delivered to the ACUA or other recycling facilities for processing. |
| Food & Beverage metal containers including aluminum, bi-metal and steel food beverage and aerosol cans. Also included are empty paint cans. | Curbside collection may be provided by the ACUA or by a municipality or a contracted hauler. Materials may be delivered to the ACUA or other recycling facilities for processing. |
| Plastic Bottles and Jugs imprinted with a "1" (PETE) or "2" (HDPE) on the bottom including food, beverage, health/beauty, and cleaning products, bottles 2 ½ gallons or less in size. Automotive fluid containers and other bottles which contain hazardous products are <u>not</u> included. | Curbside collection may be provided by the ACUA or by a municipality or a contracted hauler. Materials may be delivered to the ACUA or other recycling facilities for processing. |
| Leaves | May be delivered to the ACUA yard waste composting facility for a fee. Alternately, may be delivered to approved municipal or agricultural yard waste composting facility. |
| Grass clippings | May be delivered to the ACUA yard waste composting facility for a fee or an approved composting facility. "Cut it & leave it" or backyard composting is the preferred method for disposal. |
| Brush, tree branches, tree stumps, and Christmas trees including vegetative and land clearing waste. | May be delivered to the ACUA yard waste composting facility for a fee or a municipal or agricultural yard waste composting facility. |

Table F-3, cont'd.
ATLANTIC COUNTY
MANDATORY RECYCLABLE MATERIALS

| <u>Material</u> | <u>Recycling Options</u> |
|--|---|
| "White Goods", ferrous scrap, and non-ferrous scrap includes refrigerators, air conditioners, other "CFC" containing appliances, and washers, dryers, ovens, water heaters, steel and metal piping. | May be delivered to ACUA, or to a private scrap metal facility. |
| Asphalt & Concrete | May be delivered to an approved NJDEP Class B recycling center. |
| Propane Tanks (must be empty 20 lbs. size or less) | May be delivered to ACUA Transfer Station for a fee. |
| Consumer Electronics (a.k.a. E-Waste) including: CPU's, monitors, keyboards, mouse, TV's, VCR's, radios, telephones. Note: E-waste will be banned from landfills in 2011. | May be delivered to the ACUA Solid Waste Facility. Other private facilities may also be utilized if authorized to collect this material. |
| Used Motor Oil, Kerosene, and #2 home heating oil including crankcase oil and other oils which meet market specifications. | May be delivered to ACUA during a scheduled household hazardous waste collection event. |
| Anti-freeze | May be delivered to the ACUA during a scheduled household hazardous waste collection event. |
| Chipboard including dry food boxes with liners removed and powdered detergent boxes. | If source-separated may be delivered to ACUA or other private recycling center. |
| Tires: commercial and passenger vehicles tires | Delivered to ACUA Transfer Station/MRF for recycling. Fee is charged to cover operational costs. |
| Lead acid batteries including motor vehicle, aviation, marine, and sealed lead acid (SLA) batteries. | May be delivered to the ACUA during scheduled household hazardous waste collection events. |
| Consumer Rechargeable Batteries | May be delivered to the ACUA during scheduled household hazardous waste collection events. |

Table F-4
ATLANTIC COUNTY
LIST OF RECOMMENDED RECYCLABLE MATERIALS

| <u>Material</u> | <u>Recycling Options</u> |
|---|--|
| Clean wood: including clean untreated, unpainted, construction wood and wooden pallets. | Delivered to ACUA "Class B" recycling center at a nominal charge. |
| Hardback books | Donate to participating schools or non-profit organizations or collected for recycling by private sector vendor. |
| Food Waste from Commercial & Institutional sources <u>only</u> . | ACUA assists and encourages source-separation, collection and processing arrangements between commercial/institutional food waste generators and swine farmers. |
| Textiles – clothing | Private sector non-profit recyclers/organizations. |
| Residential Carpet & Padding | Delivered to ACUA for recycling. A fee is charged to offset the operational costs. |
| Rigid plastics such as laundry baskets, 5 gal plastic buckets, plastic pallets, children's playhouses, plastic automotive bumpers. | Delivered to ACUA Recycling Center on a drop-off basis only. Currently no charge associated with this material. For more information please contact ACUA. |
| Boat Shrink Wrap (Blue, White, & Clear) | Delivered to ACUA Recycling Center, ACUA provides collection service (call for details) and can accept on a drop-off basis. Currently no charge associated with this material. For more information please contact ACUA. |
| Street Sweepings and Catch Basin Cleanouts (from municipal cleaning operations, must be de-watered and oversized litter removed). | Delivered to ACUA Transfer Station and/or landfill. A per ton fee is charged for disposal. |
| Contaminated Soil including fuel contaminated soil, dewatered soil and stone subject to NJDEP regulatory standards. | Delivered to ACUA landfill at a reduced rate depending on an as-needed basis and when in compliance with ACUA acceptance procedures. |
| Cooking Grease (from commercial sources only) | Private recyclers. |
| Plastic containers with the numbers 3-7 | Delivered to ACUA during scheduled household recyclable collection. |
| Paint including oil based, latex (latex is non-hazardous, can (when empty) is recyclable, leftover latex paint can be hardened and disposed of with trash), stain, varnish, shellac, polyurethane, wood and masonry sealer and wood preservative. | Delivered to ACUA during scheduled household hazardous waste collection events. |

4. DESIGNATION OF RECYCLING STRATEGIES

This section explores the general policies and programs that the County will rely upon to enhance recycling and waste reduction. The policies and programs include:

- A. Development of facilities and enhancement of services provided by the ACUA;
- B. Inclusion of municipal and private facilities within the Atlantic County Solid Waste Management Plan to supplement ACUA facilities and programs;
- C. Strategies and Recommendations Regarding Generators;
- D. Educational and public communication efforts to explain recycling options and benefits to the public.

These policies and programs are described further below.

A. RECYCLING FACILITIES AND SERVICES

To implement this plan, Atlantic County authorized the ACUA to construct and operate a recycling center and a compost facility, at the Fritz Haneman Environmental Park, in Egg Harbor Township. The County will continue to rely upon the ACUA's facilities and programs to enhance recycling and waste reduction within Atlantic County.

The Atlantic County Utilities Authority (ACUA) Mission

As the Solid Waste Management Plan Implementation Agency, the ACUA will be responsible for providing the following services to enhance recycling and waste reduction within Atlantic County:

Public Information - ACUA will be responsible for the dissemination of recycling and waste disposal information to the General Public. This will be accomplished through multiple sources such as the publication of a quarterly Newsletter, which will update the public on the Authority's programs and environmental initiatives.

In addition, the Authority will utilize its website to inform the public about recycling, recycling collection schedules, what materials can be recycled and how, and business recycling collection services. Some other services available to the general public on the ACUA website are: a recycling bucket request form, information on ACUA's Alternative Energy projects (Windfarm, Solar, Landfill Gas to Energy, etc), information about ACUA's participation in the County's Clean Communities Litter Abatement program, and opportunities to volunteer for ACUA-sponsored programs such as Household Hazardous Waste Collection Days, etc.

Education & Outreach – The ACUA will continuously inform, promote and educate residents in waste management, environmental preservation, and recycling. This approach will be complemented with cost-free tours to the ACUA facilities in Atlantic County: the Wastewater Treatment Facility and the Environmental Park. The ACUA is a member and promoter of the EPA program, "WasteWise" which seeks to reduce municipal solid waste through innovative waste prevention and recycling techniques. WasteWise is a voluntary plan which helps U.S. organizations eliminate costly municipal solid waste, which benefits the bottom line and the environment.

Tours of Alternative Energy Projects - The ACUA will provide tours of the Environmental Park and Wastewater Treatment Facility to groups, schools, churches and others.

Household Hazardous Waste Collection Events - The ACUA will provide Household Hazardous Waste Collection Events the first Saturday of every other month. These events will be cost-free to Atlantic County residents and will allow them to safely dispose hazardous waste such as pesticides, motor oil, antifreeze, paint, etc.

Clean Communities Litter Abatement – Since 2005, the ACUA has been responsible for the New Jersey Clean Communities Program for Atlantic County. In this program, the community gets involved in cleaning our county roads with cleaning supplies provided by the ACUA. The ACUA will monitor and promote this program throughout Atlantic County and will collect all trash and recyclables resulting from such activities.

Research Development & Demonstration – The ACUA will constantly strive to research, evaluate and implement new technologies that will enhance our quality of life through the protection of waters and lands from pollution via responsible waste management service. ACUA research projects and demonstrations will include wastewater treatment and reuse, waste management and composting, and alternative sources of energy (biodiesel, CNG, solar and wind).

B. PRIVATE AND MUNICIPAL FACILITIES

The municipal recycling of “Class A” Recyclables (paper, cardboard, plastic, metal, and glass) is supplemented through the use of recycling drop-off centers. Recycling collection schedules and accepted materials for Atlantic County municipalities are posted on the ACUA’s website: www.acua.com. Also included on the website are locations and operating hours of drop-off centers for recyclable materials.

There are also several private “Class B” Recycling Centers within Atlantic County. Class B materials include source-separated concrete, brick, block, asphalt-based roofing scrap, wood, asphalt, trees and tires. Class B Recycling Centers provide for the receipt, processing, transfer and storage of these materials subject to NJDEP approval. .

The ACUA also operates a “Class C” recycling center for the composting of leaves, grass, and brush. Several municipalities in the County also operate composting facilities. They include Galloway Township, Egg Harbor Township, Mullica Township and Absecon.

C. STRATEGIES AND RECOMMENDATIONS REGARDING GENERATORS

Despite the availability of services and facilities dedicated to recycling, the fact that nine municipalities are capturing less than 2% of their waste stream is reason for concern. The District Recycling Coordinator will meet with the municipal recycling coordinators of each underperforming municipality to review existing efforts and collectively develop new strategies to improve recycling. As part of this process, municipalities will be requested to: review solid waste collection contracts and procedures, to ensure that haulers are prohibited from collecting recyclables with solid waste; identify neighborhoods with low participation and determine methods of communicating recycling procedures and options to resident and generators.

Multi-family Recycling - Multi-family complexes shall contract privately for recycling collection service, unless this service is provided by the municipality in accordance with the provisions of N.J.S.A C.40:66 - et al. Multi-family complexes that contract privately for recycling collection shall be responsible for reporting recycling tonnages to their respective municipality.

Strategies to Improve Multi-family Recycling – This will include co-locating recycling at all solid waste collection points and installing enhanced, permanent signage. It is recommended that municipal recycling coordinators inventory and visit multi-family complexes to assess the

need for additional recycling containers. Training workshops for complex site managers and recycling brochures for each occupant are also recommended. Municipalities are also advised to amend local zoning and land use ordinances to reflect these provisions.

Institutional and Non-Profit Agency Recycling - Schools

Atlantic County is home to 31 public school districts, 26 non-public schools and other educational institutions such as Richard Stockton College in Pomona, and Atlantic County Community College campuses in Mays Landing and Atlantic City. Many municipalities provide solid waste collection services to their schools.

Private Collection Services - Schools that do not participate in the Regional Recycling Program shall contract privately for recycling services. Schools that contract privately for recycling collection shall be responsible for reporting recycling tonnages to their respective municipality.

Strategies to Improve School Recycling - Municipal Recycling Coordinators are encouraged to meet with the school Facility's Manager and Business Manager. Schools should be requested to provide a written assessment of recycling container needs for all interior school locations; seek matching grants to purchase containers; provide recycling posters and labels for each container location; conducting mandatory training for all staff; and reporting pre and post collection tonnage data.

Governmental Institutions and Non-Profit Agencies - Most of these sites are serviced in the same fashion as schools, while some of the small generators are serviced through the curbside component of the municipal collection program.

Private Collection Services – Non-profits and other agencies that do not participate in the municipal collection program shall contract privately for recycling services. Such entities that contract privately for recycling collection shall be responsible for reporting recycling tonnages to their respective municipality.

STRATEGIES for IMPROVING GOVERNMENTAL and NON-PROFIT RECYCLING

County and Municipal Office Buildings - It is recommended that the municipal recycling coordinators conduct an annual audit of county and municipal office buildings, and develop recommendations similar to those suggested above for the school recycling improvement program, including training of all facility maintenance staff.

Parks and Community Events - All County parks that accommodate active use (instead of passive use) are outfitted with recycling and solid waste containers. Where possible, these have been co-located to ensure proper segregation of waste from recycling. The County also provides temporary recycling containers for large County sponsored public gatherings. Under the current strategy, County staff empty recycling containers and then consolidate recyclables at centralized points for collection by the Regional Program. It is recommended that municipalities develop similar programs for their parks, athletic fields, main street areas and community events such as street fairs.

State Agencies – New Jersey Transit - New Jersey Transit operates and maintains the Atlantic City Rail Line, with stations at Hammonton, Egg Harbor City, Absecon and Atlantic City. The County recommends that NJ Transit provide and maintain, recycling opportunities for riders traveling on this rail system, including recycling containers for bottles and cans, along with containers for used newspapers and similar paper products. Similarly, NJ Transit should investigate procedures and improvements that will enhance recycling of newspapers and beverage containers generated by NJ Transit Bus Line commuters.

SJTA - As the administrator of the Atlantic City Expressway, the SJTA generates wastes related to maintenance of the highway system and commuter wastes at rest stops, toll booths and similar facilities. SJTA is urged to cooperate with municipal recycling coordinators and undertake such measures as may be prudent and necessary to maximize recycling.

Federal Agencies - Post Offices located within each municipality, along with the Regional Postal Processing Center in Pleasantville, have the potential to recycle large amounts of paper. These federal buildings are of particular concern because many do not provide collection systems to capture the unwanted mail discarded by the public. The County recommends that the municipal recycling coordinator of each affected community request the Department's assistance in coordinating meetings with appropriate postal officials to develop a standardized solution to this issue.

Large Institutions – Hospitals - The County is home to four hospitals, which employ many people, treat many patients, and have many visitors pass through their doors each year. Though all offer some level of recycling, there does appear to be opportunities for increased recovery, despite the unique challenges that medical facilities present. The County recommends that the host municipal recycling coordinator reach out to partner with these hospitals to meet their challenges and develop strategies to improve recycling in the health care community.

Other Establishments - Commercial institutions, small businesses, retail stores, casino industries, hotels and motels should have strategies for the collection of recyclable materials, as some of these institutions are large waste generators. The amount of recyclable materials generated by these institutions will be relatively high, and they need to be captured before they are disposed with the general trash.

ADDITIONAL RECYCLING STRATEGIES AND RECOMMENDATIONS:

Compliance with the Electronic Waste Recycling Act (“EWRA”)

Consumer electronics, including computer monitors, central processing units, laptop computers, and used televisions, may contain varying amounts of lead, cadmium, mercury, copper, lithium, brominates, flame retardants, and phosphorus, and, therefore, should be managed in an environmentally responsible manner. Consumer electronics are a growing component of the waste stream, increasing the importance of diverting these products from landfills and incinerators to recycling facilities.

The Electronic Waste Recycling Act (“EWRA”), P.L. 2007 c. 347, was signed into law in January 2008. This legislation is intended to respond to the growing volume of consumer electronics in the waste stream and the need to manage these wastes in an environmentally sound manner. While EWRA covers desktop and personal computers, computer monitors and portable computers, its most significant provisions pertain to televisions sold to a consumer. EWRA calls for the establishment of the “Used Television Recycling and Management Program Fund” to be funded by annual registration fees paid by manufacturers of televisions offered for sale in the State. Monies in the fund are to be appropriated by NJDEP for payment to counties or municipalities for costs incurred in operation of used televisions recycling programs and for funding of a statewide recycling program for used televisions. EWRA directs NJDEP to establish criteria for county and municipal television recycling and management programs by July 1, 2009.

In accordance with EWRA, after January 1, 2010, no person shall knowingly dispose of a used covered electronic device, or any of the components or subassemblies thereof, as solid waste.

The Atlantic County Utilities Authority, along with other government approved centers, is designated as the receiving facility for in-County generated electronic waste, effective January 1, 2009.

Tires

Tires present multiple problems in the waste stream and, therefore, warrant a more comprehensive discussion regarding their designation as a mandatory recyclable material.

It is estimated that more 183,658.4 tons of scrap tires are generated each year in Atlantic County. Based upon the Department's 2006 Recycling Tonnage Report totals, 502.79 tons of these tires were recycled. Current markets for recycling of scrap tires exist. The largest end use of scrap tires continues to be alternative fuel, known as tire derived-fuel ("TDF"). Other uses include playground cover material, equestrian track surfacing and civil engineering applications.

While scrap tire comprise only a small percentage by weight of the total solid waste stream, they present serious problems in terms of their impact on the environment. The two greatest concerns associated with tires are: the hazards of tire disposal in landfills, and illegal tire dump sites.

When landfilled, tires migrate to the surface of the landfill and impede proper maintenance of intermediate and final cover on the landfill. The County does not accept tires for landfilling at the Resource Recovery Complex. Any tires inadvertently delivered in loads of mixed waste are picked at the working face and recycled. Haulers delivering tires in mixed loads are subject to a surcharge.

Illegal dumping of tires, particularly in the rural Pineland communities, has been an ongoing problem. Large tire stockpiles are a significant fire threat. In addition to the environmental hazards posed by scrap tire stockpile fires, there is a high cost associated with fighting these fires and cleaning the site of hazardous residues after fires are extinguished. Moreover, scrap tires are perfect breeding grounds for mosquitoes that may transmit the West Nile Virus.

NJDEP provided grant funds to counties in the fall of 2000 for scrap tire cleanup programs that focused on removing scrap tires from roadsides, vacant lots and parklands. Counties could also use these funds for scrap tire amnesty days, i.e., programs wherein residents can deposit scrap tires at county collection centers at no cost. Through this program, virtually all of the known scrap tire stockpiles in the County have been eliminated. The program also afforded hundreds of residents the opportunity to remove stored tires from their property.

P.L. 2004, c.46 established a fee on tires sold in New Jersey that was projected to generate \$12.3 million in annual revenue, of which \$2.3 million was to be allocated for scrap tire programs. Atlantic County has been extremely successful in utilizing these funds; namely, with the successful clean up of the Perona Brothers Tire Dump along Router 30 in Mullica Township. That project resulted in the removal of an estimated 300,000 scrap tires from a 20 acre site. The County also was notably successful in recovering a substantial portion of the clean up funds invested in the Perona site. These funds shall be reused to undertake similar tire dump clean up projects.

Unfortunately, for the past three years the State has reallocated tire clean up monies for other purposes. The County urges the State to restore the funding so that tire clean up initiatives can continue. Restoring funding to this program, as intended by the legislature, is a critical step to maximizing recycling of scrap tires.

Even in the absence of state funding, there are tire collection systems available to all generators. Designating tires as a mandatory recyclable material will channel more of this problematic material into recycling programs, rather than into the waste stream or illegal dump sites.

Recommendation for Construction and Demolition Recycling Ordinance

NJDEP has prepared a model ordinance to encourage recycling at construction and demolition sites. The ordinance requires a “Debris Recovery Plan” to be filed for construction, renovation or demolition projects for which a building permit or a demolition permit is required, and for which a dumpster or roll-off container is placed on site for solid waste materials. If adopted, this ordinance should greatly enhance the recovery of construction and demolition materials. Municipalities are strongly encouraged to adopt the model ordinance or similar ordinance.

D. EDUCATION AND PUBLIC OUTREACH

Publications

The County’s regional approach to residential recycling has afforded the opportunity to provide consistent and standardized recycling information to residents served by the Regional Recycling Program since its inception in 1982. The keystone document for the program has been the customized municipal recycling brochure that the County provides to each municipality. In 2008, the County distributed more than 175,000 brochures and historically has funded the associated municipal mailing costs. The County continually updates the design of the brochure to keep the recycling message fresh and effective. As a measure of success, counties and municipalities in other parts of the state have incorporated the County’s design elements into their own publications. The County also provides to municipalities, upon request, a mid-year recycling schedule for distribution in municipal tax bills. These requests totaled 105,000 schedules in 2008. The County provides a separate Multi-family recycling brochure for municipalities to distribute to their Multi-family complexes.

The County may reconsider absorbing the entire cost of printing and mailing recycling brochures. Historically, these costs were paid by grant monies provided through the Solid Waste Services Entitlement (“SWT”) program. These grant funds will no longer be available due to elimination of the Solid Waste Services tax. The Recycling Enhancement Act reestablishes funding for recycling, but allocates more grant funds to municipalities and less to counties. Unless the same overall level of grant funding is provided to the County as was previously provided under the SWT program, municipalities may be required to assume or share some or all of these costs.

The County will continue to provide literature for distribution by public agencies, municipal recycling coordinators and civic groups. The literature covers an array of topics including hazardous waste programs, used motor oil recycling, tire recycling, consumer electronics programs, back yard composting information, and special recycling programs offered by the county, such as carpet and mixed rigid plastics recycling. Additional publications include a recycling newsletter, mailed to all residents twice a year that is designed to benefit all generators, including businesses and schools.

The County will disseminate new informational materials as needed over time for the commercial and institutional sectors. In the near term, literature is being developed on methods to establish cost effective, ordinance compliant recycling programs. Efforts are underway to enhance the recycling section of the County website and explore other electronic outreach measures. All recycling publications are printed on recycled paper and are posted electronically on the county website.

Other Communication Measures

Events and Presentations

The County, through the ACUA, hosts several major events designed to promote recycling, including the well-attended annual County Earth Fair. The County offers programs at the ACUA Haneman Environmental Park Recycling Center, including school tours, Scout Tour Days and an America Recycles Day open house. Several thousand people take part in these tour programs each year. The County provides school recycling assembly programs, and offers presentations to civic organizations upon request. The County will continue these outreach efforts in the future.

Recycling Workshops

The County, through the ACUA, conducts recycling workshops for interested groups in the county. The County will provide at least one workshop a year to several groups and will place special emphasis on providing workshops for commercial establishments. These will include workshops for builders regarding recycling at construction and demolition sites, and for commercial property managers and tenants, and casino facility personnel. Recycling workshops are also contemplated for school facility managers and for officials responsible for recycling enforcement.

Municipal Recycling Coordinator ("MRC") Outreach

The County Planning Department, together with the ACUA, holds regular meetings with MRCs to provide updates regarding new programs and laws and regulations related to recycling and solid waste management. The County also provides individual assistance to coordinators as needed regarding special recycling projects and preparation of tonnage reports.

5. MUNICIPAL RESPONSIBILITIES

The Atlantic County recycling campaign would fall flat if it were not for the cooperation of the local municipalities. The individual municipalities have joined the effort to make recycling a successful program in Atlantic County. Subsequent to the adoption of the 1988 Atlantic County Recycling Plan, each municipality adopted a Municipal Recycling Ordinance which outlined its own recycling program consistent with the state and county plans. As part of this plan amendment, the County will assist each municipality with reviewing their existing Recycling Ordinance and updating it to conform to the requirements listed below.

In order to insure the achievement of the Statewide Municipal Solid Waste Recycling goal of 50% in each municipality, and in order to meet the requirements as set forth in N.J.S.A. 13:1E-99.16, the municipal responsibilities are identified below:

A. Designation of a Municipal Recycling Coordinator

Each municipality shall designate one or more persons as the Municipal Recycling Coordinator ("MRC"). The MRC shall compile recycling data and prepare reports as required by the state and county, oversee the recycling activities of all generators within the municipality and assist all generators in compliance with applicable provisions of the District Plan and in accordance with the municipality's recycling program and ordinance. It shall be the responsibility of the municipality to ensure that the MRC has the knowledge to provide this assistance. All MRCs shall attend, at a minimum, one County-sponsored recycling meeting annually.

The appointed MRC shall be responsible for assuring that records of all materials recycled in the municipality are properly maintained, compiled and reported to the state and county. The appointee shall act as the municipality's informational source for residents, businesses and officials.

MRC's shall attend the New Jersey Recycling Certification Series offered by the Rutgers Office of Continuing Professional Education and complete the course by January 2010. A "Municipal Certified Recycling Coordinator" means a person who shall have completed the requirements of a course of instruction in various aspects of recycling program management, as determined and administered by the Department. Each municipality shall provide the County with annual notification of the designated MRCP by January 31 of each year.

All municipalities have a designated recycling coordinator. Municipal recycling coordinators know the recycling trends better than anyone at the county or state level. Municipal recycling coordinators regularly communicate with the ACUA regarding recycling rates, collection and other issues. They have the ability to interact daily with construction and zoning officials regarding development. They also are able to bring unique educational programs into local schools that will have an impact to future generations.

It is also highly recommended that each municipal recycling coordinator attend the quarterly municipal recycling coordinators meetings hosted by the ACUA and that new municipal recycling coordinators contact the ACUA to schedule a recycling coordinator orientation meeting. Additionally, a new and valuable resource available to municipal recycling coordinators is *The Recycling Coordinator's Primer*, available on the Association of New Jersey Recyclers' website www.anjr.com. All municipal recycling coordinators are strongly encouraged to join the Association of New Jersey Recyclers in order to stay informed regarding recycling issues affecting the state, Atlantic County and their municipality.

B. Establish a Municipal Recycling Program

Each municipality shall establish and implement a municipal recycling program in accordance with the requirements as set forth in N.J.S.A. 13:1E-99.16 and in accordance with this Plan Amendment as follows:

- 1. Provide for a Collection System (N.J.S.A. 13:1E-99.16.6a):** Each municipality shall provide for a collection system for the recycling of materials designated in the district recycling plan as necessary to achieve the designated recovery targets set forth in the plan, in those instances where a recycling collection system is not otherwise provided for by the generator, or by the County, inter-local service agreement or joint service program, or other private or public recycling program operator.
- 2. Adoption/Update of Municipal Source-Separation Recycling Ordinance N.J.S.A. 13:1E-99.16.6b).** Each municipality shall review their existing recycling ordinance and adopt an update in accordance with N.J.S.A. 13:1E-99.16 and this District Plan. The adoption of the Municipal Recycling Ordinance shall occur within 6 months from the date of the NJDEP approval of this County Plan Update. The municipality must provide the district recycling coordinator with a certified copy of the recycling ordinance as soon as it is amended.

At a minimum the recycling ordinance shall include:

The recycling ordinance shall require persons generating municipal solid waste within its boundaries to source-separate from the municipal solid waste stream, in addition to leaves, the specified recyclable materials for which markets have been secured and,

unless recycling is otherwise provided for by the generator, place these specified recyclable materials for collection in the manner provided by the ordinance.

The revised ordinance shall also include a provision whereby the municipality accepts the MSW Recycling Goal as a level of recycling to be achieved by **2019**.

A list of specified recyclable materials which shall include at a minimum the county list of designated recyclable materials identified in this District Plan. The municipality may designate additional recyclable materials for which markets have been secured.

The recycling ordinance shall include enforcement policies which identify the specific municipal official(s) that may enforce the ordinance along with penalties to be imposed for non-compliance with the municipal source-separation recycling ordinance;

The NJDEP has created a Model Municipal Source-Separation and Recycling Ordinance that may be used by a municipality when updating its ordinance. It can be found at the NJDEP website.

C. Review of Municipal Master Plan and Land Development Regulations

In accordance with NJSA 13:1E-99.16.6.c, the governing body of each municipality shall, at least every 36 months, conduct a review and make necessary revisions to the master plan and development regulations pursuant to the Municipal Land Use Law (40:55D-1 et seq). These revisions shall reflect changes in federal, state, county and municipal laws, policies and objectives concerning the collection, disposition and recycling of designated recyclable materials.

The revised master plan shall include provisions for the collection, disposition and recycling of recyclable materials designated in the municipal recycling ordinance and for the collection, disposition and recycling of designated recyclable materials within any development proposal for the construction of 50 or more units of single family residential development 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.

In addition, the Municipal Land Use Law at C.40:55D-38b.(15) requires communities to incorporate into their empowering ordinance requirements to conform with the model ordinance promulgated by the NJ Department of Environmental Protection to include facilities for the collection or storage of source-separated recyclables materials in any new Multi-family development.

The municipality shall provide to the county a copy of sections of the municipal master plan and land development regulations that includes provisions for the collection, disposition and recycling of designated recyclable materials within any development proposal for the construction of 50 or more units of single family residential development 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.

The municipality shall provide the applicable sections of the master plan and land development regulations within 6 months from the date of the NJDEP approval of this County Plan Update.

D. Exemptions (13:1e-99.16.6d)

The Recycling Act allows the governing body of a municipality to exempt persons occupying commercial or institutional premises within its municipal boundaries from the source-separation

requirements of the municipal recycling ordinance 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 shall file an application for exemption with the municipal recycling coordinator on forms to be provided for this purpose. The following information shall be provided on the forms: the name of the commercial or institutional entity; the street address and lot and block designation; the name, official title and phone number of the person making application on behalf of the commercial or institutional entity; the name, address, official contact person and telephone number of the facility providing the recycling services and a certification that the designated recyclable materials will be recycled, and that, at least on an annual basis, said recycling service provider shall provide written documentation to the municipal recycling coordinator of the total number of tons collected and recycled for each designated material.

E. Submittal of Recycling Tonnage Report (13:1E-99.16.6e)

The governing body of each municipality shall, on or before July 1st of each year, submit a recycling tonnage report to the NJDEP (or Department), in accordance with the rules and regulations adopted by the department thereof.

The governing body of each municipal shall provide an electronic copy of this recycling tonnage report concurrently to the ACUA, the Atlantic County Planning Department and Atlantic County Health Department.

In the same measure, all solid waste and recycling facilities in Atlantic County shall be required to submit their annual tonnage or cubic yardage of recyclable materials to the Atlantic County Recycling Coordinator.

REPORTING STRATEGIES – REPORTING OF SOLID WASTE TONNAGES

Reporting Issues

The accurate reporting of solid waste and recycling tonnages by haulers is essential for the County to track municipal recovery rates and determine which sectors of community (residential, commercial, institutional) may need additional recycling program support. The NJDEP requires that all solid waste haulers report solid waste type and tonnages collected by municipal origin. The Department further requires that all solid waste facilities and all recycling centers holding a general approval maintain a record of materials received; stored, processed or transferred that include the municipality of origin. Additionally, these facilities must submit an annual report summarizing this information. The Department provides a list of municipal origin codes to be used for this purpose. All solid waste facilities that are approved and included in the Atlantic County Solid Waste Management Plan will be required to submit annual report which must contain amount of material received, stored, processed or transferred including the municipal origin of the material, to the District Recycling Coordinator in addition to the Department annually by March 1st. The NJDEP provides a list of municipal origin codes to be used for this purpose.

Solid waste and recycling haulers report the origin(s) of their loads to the receiving facility (recycling and/or solid waste) and the facility uses this information as the basis for their reports. Inaccuracies result when haulers report waste origins by billing address that relying upon zip codes. Zip code boundaries do not coincide with municipal boundaries. For example, the zip code “08213” covers portions of three municipalities. Haulers may report waste pickup in any of these municipalities as being from Galloway Township, but the physical location could be Galloway Township or Hamilton Township or Egg Harbor City. Identification of municipal origin by zip code or mailing address is not acceptable and shall be considered a violation of the

District Plan. A table of Atlantic County municipal origin codes has been provided in Appendix E.

There is a chronic problem of recycling haulers failing to report recycling tonnages. A lack of reporting by recycling haulers has resulted in artificially low recovery rates for municipalities and the County at large. Though the responsibility for reporting ultimately rests with the generator, there have been instances when recycling haulers have failed to provide requested recycling tonnage information to their customers. The County recommends that municipalities require all haulers engaged in recycling collection activities to register with the municipality and to comply with municipal reporting requirements.

Municipalities must report recyclables in accordance with the material identifications defined and established by the NJDEP's Tonnage Report Program in order to receive credit toward recycling recovery goals and receive State Tonnage Grant funds. Not all haulers are reporting in this manner, resulting in municipal tonnage report disallowances by the Department. All haulers shall use the material identification codes and weight conversion rates for recyclables found under the Tonnage Grant Program section of the Department's website when preparing recycling reports. Adoption of these standardized practices shall ensure that generators and municipalities receive full benefit of recycling activities.

The lack of knowledge among commercial and institutional generators regarding their recycling responsibilities has perpetuated reporting issues. The ACUA & County shall endeavor to advise recycling providers, where feasible, of the standard reporting practices mentioned previously. Towards this end, the ACUA and the District Recycling Coordinator has and shall continue to serve as a reporting conduit for recycling providers to municipalities. This option allows these haulers to provide on single report which lists, by origin, the materials and tonnages recycled by their customers. This has proven a convenient and efficient way to capture and disseminate recycling tonnage information.

Standardized Statewide Electronic Reporting

Solid Waste disposal facilities and haulers are required by NJDEP regulations to submit monthly reports to the Department regarding waste types, tonnages and municipality of origin. This information is essential in calculating municipal recycling rates. The current reporting practice does not provide for this data to be transmitted by the disposal facilities and haulers and processed by the Department electronically. Instead, paper reports are submitted, photo copied by the Department and redistributed to county solid waste management agencies. This process is time consuming and results in a delay of at least a year to report out information needed by the counties and municipalities. Also, any analysis of the data by the Department, counties or any other party, requires it to be entered into an electronic database. This practice requires duplicative data entry by multiple parties which is not only inefficient but increases the risk of data entry errors. The current process contradicts the Department's own source reduction goals. The County recommends that the Department establish an electronic reporting system for solid waste disposal facilities and haulers as soon as possible.

F. Notification to Generators of Recycling Opportunities and Requirements (13:1E-99.16.6.f.):

The governing body of each municipality shall, at least once every six months, notify all persons occupying residential, commercial, and institutional premises within its municipal boundaries of local recycling opportunities, and the source-separation requirements of the ordinance.

In order to fulfill the notification requirements of this subsection, the governing body of a municipality may, in its discretion, place an advertisement in a newspaper circulating in the municipality, post a notice in public places where public notices are customarily posted, include

a notice with other official notifications periodically mailed to residential taxpayers, or any combination thereof, as the municipality deems necessary and appropriate.

Copies of these notifications shall be provided to ACUA, County Planning Department and County Health Department.

The County, through the ACUA, has historically provided at least one of the required residential notifications as a benefit to municipal participants in the County solid waste management. The County may, at its discretion, continue to provide this benefit to municipal participants; however, the primary responsibility for notification lies with the municipality. In the event a municipality elects not to participate in the County's solid waste management system, the municipality shall be solely responsible for any residential notifications that were previously provided by the County.

In addition to the notification requirement stated above, each municipality shall implement a "new resident notification" procedure to ensure that each new resident receives recycling program participation instructions within 30 days of occupancy.

Several municipalities now use municipal websites to post recycling information including collection schedules and materials accepted at the local recycling depot. This is proving to be a very effective outreach tool. Another developing option has been "e-notifications", whereby residents sign up to receive municipal email notices advising them of recycling schedule changes or special recycling collection events. All municipalities are encouraged to adopt similar electronic outreach programs.

As a cost savings measure, municipalities may wish to consider incorporating residential recycling notifications into the outreach information mandated by the Department's Municipal Storm-water Regulation Program ("Storm-water Program"). This program addresses pollutants entering our waters from certain storm drainage systems owned or operated by local, county, state, interstate, or federal government agencies. A provision of this program requires municipalities to conduct a Local Storm-water Public Education Program that includes at a minimum, one annual mailing, that may be hand delivered and one annual event. Recycling and storm water outreach programs share common objectives as both address the need for proper management of certain recyclables including antifreeze, leaves and used motor oil. This commonality affords an excellent opportunity for collaborative outreach efforts.

Each municipality shall be responsible for providing recycling notifications to each Multi-family, commercial and institutional generator. These generators, especially commercial establishments, have received little or no recycling information, and none on a consistent basis. Consequently, many still remain unaware of mandatory recycling requirements, including tonnage reporting provisions. To address this issue, municipalities shall be required to provide at least one direct notice to each Multi-family, commercial and institutional generator on an annual basis. The notice must state the mandatory recycling requirements, including the provision to accurately report the types and tonnages of materials recycled. The notice shall further state, that to meet the reporting requirements, generators should only contract with recycling collectors and/or markets capable of providing adequate tonnage documentation.

The County in conjunction with ACUA will assist municipalities in developing recycling outreach information for Multi-family, commercial and institutional generators.

6. RECYCLING ENFORCEMENT

A. Responsible Agencies

Within Atlantic County, the enforcement of the recycling mandates will be performed by a combination of public and private entities. They are listed below and are described in more detail in this section.

1. State of New Jersey/NJ Department of Environmental Protection
2. Atlantic County Municipalities/Municipal Recycling Coordinators
3. Atlantic County Health Department
4. District Recycling Coordinator
5. Solid Waste and Recycling Permitted Facilities
6. Atlantic County Planning Department

1. State of New Jersey/NJ Department of Environmental Protection

The New Jersey Department of Environmental Protection (NJDEP) is the primary solid waste enforcement agency in New Jersey and hence, Atlantic County. The NJDEP authority stems from the New Jersey Solid Waste Management Act (N.J.S.A. 13:1E-1 et seq.) that was enacted in 1975. The Solid Waste Management Act gives the NJDEP broad powers that include, but are not limited to:

- a) Review and approve county solid waste management plans, plan modifications and amendments thereof.
- b) Review solid waste facility permit applications. These include sanitary landfills, transfer stations, resource recovery facilities, compost facilities, and recycling centers.
- c) Issue of solid waste facility permits and recycling center approvals.
- d) Perform inspections of solid waste facilities and recycling centers. This currently also includes rail facilities that are exempt from the NJDEP permitting requirements, but are subject to operational requirements (N.J.A.C. 7:26:2D-1 et seq.).
- e) Review applications for solid waste transporters. Those companies that are in the business of solid waste collection are also subject to rules and regulations found in the Solid Waste Utility Control Act (N.J.S.A. 48:13A-1 et seq.). These companies are also subject to an investigation performed by the Attorney General's office.
- f) Issue solid waste transporter registrations and renewals.
- g) Conduct investigations of solid waste generation, transportation and disposal activity.
- h) Revoke solid waste facility permits and solid waste transporter registrations.
- i) Pursue enforcement actions administratively or in a court of competent jurisdiction.

2. Atlantic County Municipalities/Municipal Recycling Coordinators

In 1987, the State Legislature passed the Mandatory Source-Separation and Recycling Act that required all counties to prepare and adopt a recycling plan in order to achieve recycling goals established by the State. In 1988, Atlantic County Board of Chosen Freeholders adopted the Atlantic County Recycling Plan. The Mandatory Source-Separation and Recycling Act required all municipalities to adopt ordinances requiring generators of municipal solid waste to source-separate designated recyclable materials.

The 1988 Atlantic County Recycling Plan indicated that the primary mechanism for enforcing mandatory recycling would reside in the ordinance enacted by each municipality pursuant to the Act. Based on a number of factors, it is still the position of Atlantic County that the municipalities are in the best position to update their local recycling ordinances and enforce those ordinances to maximize recycling rates and compliance.

All municipalities have a designated recycling coordinator. Municipal recycling coordinators know the recycling trends better than anyone at the county or state level. Municipal recycling coordinators regularly communicate with the District Recycling Coordinator regarding enforcement, recycling rates, collection and other issues. They have the ability to interact daily with construction and zoning officials regarding development. They also are able to bring unique educational programs into local schools that will have an impact to future generations.

At a minimum and in order to maximize enforcement efforts, municipalities shall have the following responsibilities:

- a) Maintain a list of personnel in the municipality who are capable of and obligated to enforce the municipal recycling ordinance and/or other municipal ordinances which pertain to illegal dumping, solid waste and recycling and provide a copy of this list to the District Recycling Coordinator, County Planning Department and County Health Department.
- b) A municipal recycling coordinator is appointed to a full-time position. If a municipality has limited resources, they should consolidate this service with other municipalities. One full-time recycling coordinator could manage the demands of two or more smaller communities.
- c) The Municipal Recycling Coordinators shall conduct a total of three (3) investigations per year at large solid waste generators (i.e. hospitals, schools, colleges, multi-family complexes, hotels and motels, shopping malls, casinos) and smaller solid waste generators every other year to determine the status of their recycling efforts;
- d) The Municipal Recycling Coordinators shall coordinate recycling enforcement and education efforts with the District Recycling Coordinator, County Planning Department and County Health Department.
- e) The Municipal Recycling Coordinators shall attend the quarterly meetings of the Atlantic County Municipal Recycling Coordinators, hosted by the District Recycling Coordinator. The purpose of these meetings is to provide information and assistance to each municipal recycling coordinator and provide an opportunity to network with their counterparts in other municipalities.

- f) The Municipal Recycling Coordinators shall notify the District Recycling Coordinator, County Planning Department and County Health Department when a notice of violation has been issued within the municipality;
- g) The Municipal Recycling Coordinators shall prepare a yearly report of any illegal dumping, solid waste and/or recycling enforcement activity which has taken place in the municipality. The report shall be provided to the District Recycling Coordinator, County Planning Department and County Health Department.

3. Atlantic County Health Department

Under the County Environmental Health Act, the Atlantic County Health Department has statutory authority to enforce certain provisions of the Solid Waste Management Act (N.J.S.A. 13:1E-1 et seq.). Just like the NJDEP, the Atlantic County Health Department lacks sufficient resources to perform an effective recycling enforcement program at the municipal level.

The Health Department will continue to provide enforcement through its responsibilities under its CEHA obligations, technical assistance and education to the municipal recycling coordinators as requested, and assistance at the Municipal Recycling Coordinators' meetings sponsored by the District Recycling Coordinator. The Health Department's responsibilities are described in more detail below and at a minimum shall include:

- a) The Health Department will work with municipal recycling coordinators as a technical resource.
- b) The Health Department will be available to provide enforcement and investigation training to recycling coordinators.
- c) During routine solid waste facility inspections, the Atlantic County Health Department inspectors will check incoming loads for excess amount of recyclable materials.
- d) The Health Department will perform inspections at recycling facilities and investigate complaints regarding illegal recycling operations.
- e) The Health Department will check on properties for compliance where a recycling exemption pursuant to N.J.A.C. 7:26A-1.4 has been filed with the NJDEP.
- f) More specifically and pursuant to N.J.A.C. 7:1H-3.4, the County Health Department Solid Waste Control Program focuses on the following activities:
 - 1. Monitor the operation of solid waste facilities.
This includes a limited amount of inspections at NJDEP permitted solid waste facilities as well as "exempt" solid waste facilities and/or activities such as:
 - Convenience centers
 - Exempt* compost facilities
 - Exempt* recycling activities

* Exempt refers to facilities and / or activities that may operate without a solid waste facility permit or general recycling center approval but must still comply with rules specified in N.J.A.C. 7:26-1 et seq. and / or N.J.A.C. 7:26A-1 et seq.
 - 2. Monitor activities of solid waste transporters. This includes monitoring:
 - Proper business / vehicle registration
 - Proper vehicle operation, maintenance, lettering and decaling

3. Identify and prosecute illegal or promiscuous solid waste dumping.

The Atlantic County Health Department investigates and vigorously prosecutes individuals found illegal dumping solid waste. A special phone number (1-800-533-DUMP) was set up years ago to assist the public in reporting cases of illegal dumping. A reward program was also established for tips received from the public leading to a conviction.

4. Investigate solid waste complaints from citizens.

The Atlantic County Health Department receives numerous complaints annually dealing with generation, transportation & disposal of solid waste. Cases are also referred to the Department by the NJDEP.

The Atlantic County Health Department is committed to monitor and enforce the rules and regulations issued under the NJ Solid Waste Management Act, the state regulations promulgated there under, and the Atlantic County Solid Waste Management Plan. The Health Department will conduct its activities according to NJDEP operating directives, policies, and guidance. The Health Department will judiciously exercise its enforcement powers to deter violations of applicable laws and regulations and engender compliance with these referenced laws, regulations, and plans. Specific enforcement activities include issuance of notices of violation, assessment of penalties, and instituting civil action in a court of competent jurisdiction.

4. District Recycling Coordinator

Within Atlantic County, the Atlantic County Utilities Authority is responsible for appointing a District Recycling Coordinator. The District Recycling Coordinator shall coordinate all communications between the various recycling enforcement agencies within Atlantic County including the State of New Jersey/ NJ Department of Environmental Protection, the Atlantic County Municipalities/Municipal Recycling Coordinators, the Atlantic County Health Department, the Solid Waste and Recycling Permitted Facilities, and the Atlantic County Planning Department.

The District Recycling Coordinator shall be responsible for the following services:

- a) Maintain contact information for all municipal recycling coordinators;
- b) Maintain records regarding the issuance, by each municipal governing body, of the exemption from source-separation issued pursuant to N.J.A.C. 7:26A-11.5;
- c) Maintain copies of all municipal recycling ordinances and ensure that the ordinances are consistent with the county recycling plan;
- d) Shall host quarterly meetings with the municipal recycling coordinators, County Planning and Health Department and other personnel involved with recycling efforts. The purpose of these meeting is to provide information and assistance to each municipal recycling coordinator and provide an opportunity to network with their counterparts in other municipalities;
- e) Meet with all municipal recycling coordinators at least annually to determine progress towards meeting the recycling goals of the county recycling plan;
- f) Maintain a current list of retail service stations that have used oil collection tanks on the premises;
- g) Maintain a current list of used oil collection centers, do-it-yourselfer used oil collection centers and used oil aggregation points;
- h) Provide information and literature to non-compliant waste generators regarding source-separation and recycling requirements.
- i) Offer technical assistance as needed.

5. Enforcement Procedures for Solid Waste and Recycling Facilities

As part of their permit to operate a solid waste and/or a recycling facility, a facility shall be responsible for specific inspection and enforcement actions which shall be included as part of their Operations Manual

Specific checklists, appropriate to the function of haulers and facility operators have been developed by the NJDEP and can be found on the Department's website at <http://www.state.nj.us/dep/enforcement/ca-checklists.html>.

These checklists are incorporated into the Atlantic County Solid Waste Management Plan by reference and may be amended as time and experience proves worthwhile, without formal adoption into the County Plan.

Specific inspection and enforcement actions are:

- a. Monitor solid waste generators for compliance with the Atlantic County Solid Waste Management Plan and NJDEP regulations.
 1. Monitor, educate and enforce the appropriate disposal options for each solid waste type.
 2. Monitor, educate and enforce the recycling program of Atlantic County at the generator level to promote appropriate recycling and conservation activities.
 3. Discourage illegal dumping.
 4. Deter introduction of hazardous wastes into the solid waste or recycling streams.
 5. Deter mixing loads by Solid Waste Transporter.
- b. Monitor solid waste and recycling haulers and transporters for compliance with State and County laws, regulations, and policies.
 1. Monitor and inspect appropriate registration and licensing.
 2. Monitor and inspect vehicular integrity for the material transported.
 3. Enforce haul routes.
 4. Deter illegal dumping.
 5. Deter use of unlicensed and inappropriate facilities.
 6. Monitor, educate and enforce applicable recycling collections.
 7. Monitor, inspect, and enforce the transport of waste materials to designated facilities.

- c. Monitor solid waste facilities and recycling centers for compliance with State and County laws, regulations, and policies.
 - 1. Perform routine inspections at facilities to assess compliance with the appropriate State and County adopted parameters.
 - 2. Inspect and assess compliance with the County recycling program. Evaluate the facility for acceptance of appropriate materials.
 - 3. Monitor delivering vehicles for proper registration.
- d. Monitor operating procedures to assess compliance with NJDEP regulations

Enforcement Procedures for the Atlantic County Utilities Authority Transfer Station/Solid Waste Landfill

In 1988 the Atlantic County Utilities Authority was given the responsibility to implement the County Solid Waste Management Plan along with the County Recycling Plan. In addition to collection, processing and marketing recyclables previously mentioned in this document, the ACUA has always been a leader in recycling education and innovative programs. The ACUA also operates a transfer station and solid waste landfill. As part of this updated plan, the ACUA will work closer with municipal recycling officials, the County Health Department and the NJDEP to identify generators who are not recycling.

To supplement the enforcement strategies implemented by Atlantic County, the ACUA has documented specific directives within its Solid Waste Operations Manual, oriented to recycling enforcement as it relates to New Jersey Solid Waste Management Policies and Practices.

The ACUA has implemented an aggressive program for recycling. In addition to Type 10 designated recyclables (glass, newspaper, aluminum beverage cans, etc), some kinds of Type 13 and Type 27 wastes are targeted for recycling. Currently the ACUA is recycling tires, wood waste, ferrous and non-ferrous metals, plastic shrink-wrap and rigid plastics. Relative to recycling other forms of bulky wastes, haulers using the transfer station and landfill facilities will be notified of the permitted bulky waste recyclers in Atlantic County so this waste stream can be properly directed. Upon notification, the haulers will be informed that they should verify the status of these facilities through the Office of Recycling prior to delivery of materials.

Notwithstanding the rigorous recycling program, the ACUA realizes that some quantities of designated recyclable materials may be present in the incoming waste stream. Removal of recyclables from the incoming waste stream will reduce quantity of material being disposed and will augment the County's recycling program.

Within six (6) months of the approval of this Solid Waste Plan Update, the ACUA will implement the following procedures at their transfer station, landfill and compost site:

- 1) Conduct at least one (1) random inspection day per month.
- 2) Inspection day shall include a maximum of twenty-five (25) evaluations of incoming solid waste loads to check for recycling and/or solid waste violations.
- 3) When more than 10% by volume of designated recyclables are found in a load of solid waste, a "Notice of Non-Compliance" will be issued to the solid waste hauler who transported the load.

- 4) "Notices of Non-Compliance" will advise the solid waste hauler to determine the source of each solid waste load containing excess designated recyclables and instruct their customers regarding the proper procedures for source-separation of designated recyclables to prevent future violations.
- 5) The ACUA staff cooperates with private solid waste haulers, municipal public works departments and recycling coordinators to assist in providing information and literature to non-compliant waste generators regarding source-separation and recycling requirements. Also, the ACUA staff will cooperate offering technical assistance to prevent future violations.
- 6) The intent of the Authority is to establish the source of the load containing excess recyclables including container number and generator of the waste. Documented information obtained with the cooperation of the hauler will be recorded and submitted to the Atlantic County Recycling Coordinator. Recording the origin of the material (Generator) will eliminate the issuance of multiple violations to a hauler for different origins.
- 7) The actual per ton surcharge as well as applicable solid waste disposal fees are established annually by the Authority in its "User Fees, Terms and Conditions for the Use of the ACUA's Solid Waste and Recycling Facilities".
- 8) All violations and records submitted to the Atlantic County Recycling Coordinator will be forwarded to the Atlantic County Health Department and the appropriate Municipal Recycling Coordinators in a timely manner.
- 9) All "Notices of Non-Compliance(s)" will be certified mailed to the user/hauler and source generator of the waste if known.

6. Atlantic County Planning Department

The Atlantic County Planning Department shall provide staff support to ensure that policies and programs associated with solid waste management plan are properly carried out. Duties include:

- a) Serve as Liaison between the State, District Recycling Coordinator, Municipal Recycling Coordinators and County Health Department.
- b) Provide staff support to the Atlantic County Solid Waste Advisory Council and other public forums that relates to solid waste management and recycling.
- c) Process amendments and updates to the solid waste management plan as well as advise the Atlantic County Freeholder Board on solid waste and recycling issues.
- d) Keep inventory of all solid waste management facilities within the county.
- e) Hold regular meetings with the Municipal Recycling Coordinators, District Recycling Coordinator and County Health Department.
- f) Assist the Municipal Recycling Coordinators in any area of service that they may require as it relates to recycling activities in the county.
- g) Keep record of all the municipal recycling ordinances and make certain that they are consistent with the county recycling plan.

B. Inspection Responsibilities

Within Atlantic County inspections will be performed by and coordinated between the NJDEP, Atlantic County Health Department, permitted solid waste and recycling facilities and local municipalities/recycling coordinators.

The Atlantic County Health Department inspections are part of the requirements identified in the County Environmental Health Work Program pursuant to the County Environmental Health Act (CEHA).

Table F-5 identifies the solid waste activities to be inspected, the frequency of inspections and the entities that will be responsible for the inspections.

C. Penalties

All penalties and fees resulting from solid waste enforcement activities and violations shall be consistent with applicable NJDEP solid waste rules.

Penalties for non-compliance with the municipal ordinances shall be identified within each of the municipal recycling ordinances.

Solid waste and recycling facilities can also charge a surcharge for haulers that fail to source-separate recyclables in accordance with the municipal ordinances.

More specifically:

a. Municipal Ordinances

In accordance with this Plan Update, municipalities shall prepare a recycling ordinance which shall include enforcement policies which identify the specific municipal official(s) that may enforce the ordinance along with penalties to be imposed for non-compliance with the municipal source-separation recycling ordinance.

As municipalities consider penalties to their recycling ordinances, reference is made to the provisions of N.J.S.A. 40:49-5.

Sample language for inclusion in a municipal source-separation recycling ordinance:

It shall be mandatory for all persons who are owners, tenants, or occupants of residential and non-residential premises, which shall include but not limited to retail and other commercial locations, as well as government, schools and other institutional locations within the municipality of _____, to separate designated recyclable materials from all solid waste. Designated recyclable materials shall be deposited separately and apart from other solid waste generated by the owners, tenants or occupants of such premises.

Any person, corporation, occupant or entity that violates or fails to comply with any provision of this ordinance or any rules and regulations promulgated hereunder shall, upon conviction thereof, be punishable by a fine not less than \$25.00, nor more than \$1,000.

b. Permitted Facilities

When more than 10% by volume of designated recyclables are found in a load of solid of solid waste, a "Notice of Non-Compliance" will be issued to the solid waste hauler who transported the load.

"Notices of Non-Compliance" advise the solid waste hauler to determine the source of each solid waste load containing excess designated recyclables and instruct their customers regarding the proper procedures for source-separation of designated recyclables to prevent future violations.

Hauler(s) will be issued up to two (2) "Notices of Non-Compliance" without surcharge for the same waste origin violation. Subsequent Notice of Non-Compliance(s), (three or more violations) shall be subject to a per ton surcharge as follows:

- a. First violation – "Notice of Non-Compliance" no surcharge
- b. Second violation – "Notice of Non-Compliance" no surcharge
- c. Third violation – "Notice of Non-Compliance" and a \$200.00 surcharge
- d. Fourth violation - "Notice of Non-Compliance" and a \$300.00 surcharge
- e. Fifth violation and subsequent violations - "Notice of Non-Compliance" and a \$500.00 surcharge

**TABLE F-5
SOLID WASTE ACTIVITIES INSPECTION SCHEDULE**

| CATEGORIES | NUMBER OF FACILITIES | FREQUENCY OF INSPECTIONS | TOTAL INSPECTIONS | INSPECTION ENTITY |
|--|-----------------------------|---------------------------------|-----------------------------|------------------------------|
| Major Landfills | 1 | Monthly Annual | 12 1 | NJDEP ACDPH |
| Minor Landfills | 0 | | | |
| Resource Recovery Facility | 0 | | | |
| Class B Recycling Centers | 10 | Monthly Annually | 120 10 | NJDEP ACDPH |
| Class C Composting Facilities | 1 | Annually | 1 | DEP / ACDPH |
| Exempt Class C Compost Facilities | 5 | Semi-Annual | 10 | ACDPH |
| Class A Recycling Centers | 1 | Annually | 1 | ACDPH |
| Farmland Mulch | Varies | As Needed | | NJDEP ACDPH |
| Recycling Depot / Convenience Centers | 8 | Semi -Annual | 16 | ACDPH |
| Transfer Stations / MRFS | 2 | Monthly Annually | 24 2 | NJDEP ACDPH |
| SOLID WASTE ACTIVITIES | | | NUMBER OF ACTIVITIES | |
| Truck Checks | | | 25 | ACDPH |
| Recycling Investigations | | | As Needed | Municipal Recycling Cord. |
| Illegal Dumping Investigations | | | As Needed | NJDEP ACDPH |
| Container Inspections | | | 25 | ACDPH |
| Citizen Complaint Investigations | | | As Needed | NJDEP ACDPH |
| NJDEP Referrals | | | As Needed | ACDPH |
| Transporter Route Investigations (if applicable) | | | | |
| Exempt Hauler Interviews | | | 25-50 / Year | ACDPH |
| Exempt Hauler Investigations | | | As Needed | NJDEP ACDPH |
| Enforcement Actions (NOVs, Settlements, Court) | | | As Needed | NJDEP ACDPH |
| Tire Sites | | | As Needed | NJDEP ACDPH |

G. FUNDING

To assist the County and municipalities in funding these recycling enforcement strategies a \$3.00 per ton recycling tax on all solid waste accepted for disposal or transfer at a solid waste disposal facility is currently being collected. It is estimated this tax will generate \$23 million annually. Of this, 60% of the funds collected will be available to municipalities in the form of a recycling grant. Funds will also be available to counties for preparing, revising, and implementing solid waste management plans including the goals of the State Recycling Plan.

These funds, when they become available, should provide Atlantic County municipalities with additional financial resources to provide recycling enforcement at the local level.

APPENDIX A

FACTORS AFFECTING SOLID WASTE MANAGEMENT

Source Reduction

New Jersey citizens are known to generate more waste than the average US citizen. EPA and other institutions have factored out that waste generation has a direct relationship with economic activity; therefore to grasp why waste generation in New Jersey will be higher than national average will not be hard. According to demographic statistics for the United States, New Jersey has the highest per capita income in the nation. Given that much of the municipal solid waste stream is dominated by single-use items, and attendant packaging, and since two thirds of US economic activity is based on consumer spending, it's not surprising that New Jersey has such a relatively high per capita waste generation rate.

Between 1985 and 2003, the generation of total solid waste in New Jersey has risen by an annual average of approximately 4%. Within the same period, the tonnage of material disposed has actually gone down by approximately 1.6 million tons, and the amount of MSW recycled has increased (according to reported recycling activity) by approximately 2.5 million tons. In spite of these two trends, however, the waste stream continues to grow faster than our ability to recycle it. If the total non-hazardous waste stream continues to increase at the historic rate, resulting in a 2015 waste stream of 33.0 million tons, we will have to recycle 72 percent of the stream to avoid growth in disposal. Currently, we are recycling 51.8 percent. There is no state that has approached an MSW recycling rate of seventy percent. Consequently, we should not look to recycling to solve all of our waste management problems; even if a revived program achieves and surpasses record highs in the recycling rate, we must also do more to prevent the generation of waste.

Obstacles to Source Reduction

In spite of the fact that source reduction is a top priority of the New Jersey Department of Environmental Protection's solid waste management strategy, inattention often becomes obvious due to the inherent difficulties associated with the quantification of such measures, and the lack of incentives. Certainly significant source reduction of certain commodities such as paper, which are recycled, may actually lower total recycling rates, and appear to be a setback, particularly since municipalities are granted monies on the basis of tons recycled, not tons avoided. It is also more difficult to accomplish, when the fore going activities are stopped, in respect to starting a new one, convincing consumers on buying only the basic necessary things is more difficult than teaching them on how best they are to separate their trash.

State Concept

Successfully, some pollution prevention programs exist for specific industrial segments and for general business through USEPA's Waste-Wise program, but there has not been a comprehensive source reduction program aimed at the general consumer. Existing educational efforts are mostly focused on the early grades, when children have little purchasing power. Related efforts to teach wise money management tends also to encourage source reduction; techniques such as buying in bulk do both. But these efforts are focused on adults in economic difficulty. The average or well-to-do consumer is not typically presented with engaging material that will naturally give obvious direction toward source reduction either at work or at home.

Lack of Control by the Government

Source reduction is also hampered by the fact that government has little control over the amounts and kinds of consumer goods put into the marketplace, nor over the packaging used for those goods, with the exception of certain toxic elements or materials. While government intervention in this aspect of commerce is naturally limited in a market-based economy, the proliferation of packaging, in particular, has made it difficult for source reduction gains to be achieved. Clearly, packaging plays an important role in terms of product integrity, promotion, safety and protection. However, the over-packaging of many products is one of the causes for the increase in solid waste generation. In general, manufacturers have opposed governmental attempts to make them responsible for the packaging waste generated by their products. As a result, the solid waste management budget burden associated with packaging waste has fallen on local government which has led to further discussions regarding product (and packaging) stewardship.

Product stewardship is the term used to describe a system that addresses the environmental and economic impacts of a product through its life cycle, i.e., from cradle to grave. This approach entails everything from design and manufacturing to packaging and distribution to end-of-life management. Responsibility for end-of-life management shifts from the public sector alone, to a system where that responsibility is at least partly shared by the private sector. The goal is to encourage environmentally friendly design and recycling, and reduce the amount of waste in need of disposal. Policies that promote and implement product stewardship principles should create incentives for the manufacturer to design and produce "cleaner" products - ones made using less energy, materials, and toxics, and that result in less waste (through reduction, reuse, recycling, and composting) and use less energy to operate. These policies should also create incentives for the development of a sustainable and environmentally sound systems to collect, reuse, and recycle products at the end of their useful lives. Until a system of product stewardship is established, either by legislation or voluntary industry agreements, it will continue to be difficult to reduce the growth in solid waste generation. Despite this fact, interest in source reduction has grown to the point where there is now a movement afoot that is dedicated to waste reduction with zero waste as the ideal long-term goal. While the establishment of such a lofty goal is noteworthy, it is clearly inconceivable in the absence of a system of product stewardship.

NJDEP INITIATIVES

Waste – Wise

The NJDEP's support for source reduction is evidenced by its membership in the Waste-Wise program administered by the United States Environmental Protection Agency. Unlike other waste minimization programs, which shunt waste to recycling, the Waste-Wise program aims primarily to prevent the generation of waste in the first place, secondly to recycle as much of the remaining waste stream as possible, and lastly to buy products containing recycled materials. As a Waste-Wise member, NJDEP has begun to pilot operational changes to minimize its two greatest waste streams: office paper and paper hand towels. One targeted method is the default setting of all copiers to two-sided copies. As successful methods are identified, they can be transferred to all government offices, achieving significant purchase reduction in this major employment sector. Success at the state government level would give NJDEP expertise and authority to bring those changes to private industry.

Pay – As – You – Throw

In communities with Pay-as-You-Throw programs (also known as per container systems, unit pricing or variable-rate pricing), residents are charged for the collection of household waste based on the amount they throw away. This creates a direct economic incentive to recycle more and to generate less waste. While such systems for municipal solid waste collection and disposal are an effective means to encourage source reduction and recycling, Pay-as-You-Throw programs are not widespread in New Jersey. To address this, a publication entitled "Implementing per Unit Pricing for Municipal Solid Waste Collection: Questions & Answers" was developed by the Department in 1995. The Department also held several informational seminars on Pay-as-You-Throw systems to assist local officials with implementing the program. Despite this effort, there has not been much interest in Pay-as-You-Throw systems in this state in recent years. As noted on the United States Environmental Protection Agency's Pay-as-You-Throw website found at <http://www.epa.gov/epaoswer/non-hw/payt/index.htm>, these programs promote environmental and economic sustainability, as well as equity. As such, the Department will continue to promote this strategy believing it might hopefully lead to an increase in the use of this source reduction approach.

Grass – Cut – It – And – Leave – It.

Another effective source reduction program has been the "Grass - Cut - It and Leave It" program. The objective of this program is to get residents to leave grass clippings on the lawn when they mow as grass clippings provide a natural and healthy fertilizer for a growing lawn. On-site management of grass clippings and other organic matter has proven to be not only a highly effective source reduction measure but also a popular yard waste management strategy. This is evidenced by the proliferation of "Grass – Cut - It and Leave It" programs in New Jersey over the past decade. The New Jersey Department of Environmental Protection (NJDEP) helped promote these programs through the publication of two brochures on the benefits associated with this activity, as well as the support of grant programs by counties to provide educational and promotional support for the program. The benefits of "Grass-Cut It and Leave It" programs are significant; not only does leaving clippings on the lawn reduce water and nitrogen needs (and attendant runoff from increased water and nitrogen usage), but the waste generation savings can be enormous. It is estimated that as much as a ton of clippings is generated for every acre of turf in a single growing season. With nearly 900,000 acres in New Jersey covered in turf, one can easily see why this program can have such a big effect on the annual generation of MSW.

Toxic Materials (Appliance and Vehicle Mercury Switch Recovery)

The NJDEP has also been involved in several initiatives designed to reduce the toxicity of materials entering the waste stream. For example, the NJDEP initiated a pilot program for the collection of mercury switches from automobiles as part of the Performance Partnership Agreement (PPA) Appliance and Vehicle Mercury Switch Recovery Incentive Program. This agreement was signed January 3, 2002 by the NJDEP, USEPA Region II, the Automotive Recyclers of New Jersey, Association of Household Hazardous Waste Coordinators, the New Jersey Chapter of Scrap and Recycling Industries and Comus International. The agreement was designed to reduce mercury emissions from iron and steel melting while increasing the overall benefits of recycling. This was accomplished by collecting mercury containing switches from end-of-life vehicles, maximizing the amount of mercury removed from scrap prior to delivery to and further processing at a scrap recycling facility.

The Department has also worked with the Northeast Waste Management Officials' Association (NEWMOA) on the development of model legislation that would reduce or eliminate non-

essential uses of mercury in household, institutional and industrial products and processes. The model legislation provides a comprehensive framework to help states develop more consistent approaches to managing mercury-containing wastes.

The NJDEP's participation in the Toxics in Packaging Clearinghouse is another means by which source reduction is advanced in New Jersey. The Toxics in Packaging Clearinghouse, which is coordinated by the Northeast Recycling Council, assists the member states to implement the elements of the "Toxic Packaging Reduction Act", adopted by New Jersey first in 1991. The Act requires manufacturers of packaging and packaging materials to reduce the amounts of certain toxic substances added to packaging and packaging components.

Project Learning Tree

The Department's Division of Parks and Forestry sponsors an educational program called Project Learning Tree, an educational tool for public school science teachers. The program has been expanded to include a challenging and provocative unit on municipal waste, with a focus on source reduction. The Department has also recently sponsored the printing of a "redistribution manual". Nine thousand copies of this guide, listing numerous local outlets for the reuse of a wide range of consumer goods in the central Jersey region were recently printed and distributed to local officials, civic groups, realtors, colleges and universities etc.

APPENDIX B

ENVIRONMENTAL AND ECONOMIC BENEFITS ASSOCIATED WITH RECYCLING

Environmental Benefits Associated with Recycling

Recycling is a well-documented environmental success story in the county and the state at large. In 2003, nearly 10.3 million tons of total solid waste was recycled in New Jersey. Apart from the facts that recycling saves resources and energy, it also reduces the need for landfills and resource recovery facilities.

According to a 2003 study by the Northeast Recycling Council (NERC), "In 2001, New Jersey's recycling efforts saved a total of 128 trillion BTU's of energy, equal to nearly 17.2% of all energy used by industry in the state, with a value of \$570 million. This energy savings is also an amount equal to 22 million barrels of oil saved, and enough power for nearly 1.2 million homes for a year." For example, aluminum produced from used beverage cans requires 90-95% less energy than aluminum produced from bauxite ore. In addition, steel produced from recycled ferrous metals requires 74% less energy than steel produced from virgin ores, while recycled glass production requires 20% less energy than glass production from virgin materials. Recycled paper production also requires from 23% to 74% less energy than virgin paper production.

Recycling also results in reduced emissions of air and water pollutants. As also detailed in the NERC report, "In 2001, the recycling of paper, plastic, glass, aluminum cans and steel cans resulted in reductions of 8,000 metric tons of water pollutants and 120,972 metric tons of air pollutants (in addition to the 5.7 million metric tons of carbon equivalent (greenhouse gas) reductions per year). Recycling reduced overall emissions of sulfur oxides by approximately 7,200 metric tons and nitrous oxides by some 7,500 metric tons." More specifically, recycled paper production creates 74% less air pollution and 35% less water pollution than virgin paper production. In addition, the production of recycled steel creates 85% less air pollution and 40% less water pollution than the production of steel from virgin ore, while recycled glass production creates 20% less air pollution than does production with virgin materials.

As previously indicated, recycling also promotes our state's Greenhouse Gas Reduction goals. The USEPA calculated that on average, approximately 1.67 metric tons of CO₂ equivalents are avoided for every ton of municipal solid waste (MSW) recycled. If the MSW recycling rate increases from 34% to 50%, a total of 7.7 million metric tons of CO₂ equivalent in avoided Greenhouse Gas emissions would result according to NJDEP.

The environmental benefits of recycling are not only significant because of their positive impact on the air, water and land of our state, but also because they result in monetary savings for manufacturers and society, in general. While the monetary benefits resulting from the energy savings achieved by using recycled aluminum and glass in manufacturing, for example, are easy to quantify, other savings, such as the economic benefit of reducing greenhouse gas emissions, for example, are much more difficult to quantify. Nevertheless, an economic benefit must be attributed to such activities as clean air, water and land which are far more valuable than polluted resources.

Economic Benefits Associated with Recycling

While the environmental benefits of recycling are well known, the economic benefits of recycling are also significant despite the fact that they are often overlooked. Simply stated, recycling has encouraged the growth of an industry and created jobs. On a national scale, the recycling industry continues to grow at a rate greater than that of the economy as a whole. In fact, according to the Institute for Local Self-Reliance, total employment in the recycling industry from 1967 to 2000 grew by 8.3% annually while total United States employment during the same

period grew by only 2.1% annually. The recycling industry also outperformed several major industrial sectors in regard to gross annual sales as its sales rose by 12.7% annually during this period. Furthermore, the number of recycling industries in the United States increased from 8,000 in 1967 to 56,000 in 2000, employing 1.1 million people across the country.

On a more local scale, New Jersey's well-developed recycling industry, which includes manufacturers of various recycled products, specialized processing facilities and transporters, is an important segment of the state's economy. A recent study conducted by the Northeast Recycling Council and United States Environmental Protection Agency found that almost 27,000 people in New Jersey are employed in recycling and reuse establishments and that total receipts from these establishments are valued at over \$5.9 billion annually. The NJDEP estimates that nearly 9,000 additional jobs would be created in New Jersey should the 50% municipal solid waste recycling goal be met. New Jersey's recycling infrastructure includes 17 intermediate processing facilities for Class A recyclable materials (glass bottles, metal cans, plastic containers, paper grades), over 100 NJDEP-approved recycling centers for Class B recyclable materials (concrete rubble, asphalt debris, wood scrap, scrap tires), and dozens of industrial facilities including steel mills, foundries and paper mills.

The economic benefits of recycling are significant in other ways, as well. For example, recycling can save money on disposal costs for generators. A survey (see below) conducted by the NJDEP in April 2004 showed that recycling asphalt debris, concrete rubble, used bricks and blocks, felled trees and stumps and wood scrap costs significantly less than disposing of these materials as solid waste.

Average Cost to Recycle:

Asphalt debris* - \$5.70 per ton

Concrete rubble* - \$4.85 per ton

Used bricks and blocks* - \$5.49 per ton

Trees and stumps - \$37.69 per ton

Wood scrap - \$46.43 per ton

Average Cost of Disposal:

Over \$75.00 per ton and can be as high as \$98.00 per ton.

* Several recycling centers did not charge any fee for the receipt of these recyclable waste materials.

Survey results based upon 63 respondents. (Source: NJDEP)

The sale of recycled products is also becoming an increasingly important component of the retail sector and commerce, in general. There are over 1,000 different types of recycled products on the market and due to changes in technology and increased demand, today's recycled products meet the highest quality standards. Recycled products are also more readily available than ever before. Such products can be found in major retail stores, supermarkets, garden centers, local shops, catalogs and on the Internet. Furthermore, recycled products are affordable. Many recycled products cost the same or less than comparable products made with virgin feedstock. Although some recycled products do cost more than their virgin counterparts, many are less expensive over the lifetime of the product. For example, the purchase of recycled plastic lumber makes economic sense when life cycle cost analysis is taken into consideration. By purchasing recycled products, consumers are helping to create long-term stable markets for recyclable materials that are collected from homes, businesses and institutions.

APPENDIX C

DEVELOPING TECHNOLOGIES TO INCREASE RECYCLING

Food Waste Recycling

Solid Waste Resource Renewal Group

The Rutgers State University of New Jersey, Department of Agricultural, Food and Resource Economics, formed a program called; "Turning Waste into New Products through Innovation and Policy Change" which is overseen by the Solid Waste Resource Renewal Group of the Department of Agriculture. Recently, this group has developed a grant application that has been submitted to the United States Environmental Protection Agency (EPA).

The purpose of this group is to match investors and food waste recycling businesses through investment forum as to put in place food waste recycling in New Jersey or New York. It's necessary to anticipate that future food waste recycling facilities will have substantial upfront capital cost in most of the United States, particularly the Northeast, and other densely populated parts of the country. This is because the relatively low cost options, namely outdoor windrow composting and livestock feeding, are limited to low population areas, where neighbors will not be bothered by possible odors. The successful facilities for food waste recycling in New Jersey, which this project covers, will be in vessel or otherwise enclosed, and will cost from \$20 to potentially as much as \$80 million.

Such substantial upfront capital costs will involve outside private and public investment, often with included risk premiums, since many of the technologies are new to the Region, and new to the United States. Most of these potential investment sources know little about food waste recycling and its values, in both financial returns and environmental and social benefits. Moreover, these potential investors have not been brought into contact with businesses which can use food waste as a raw material for valuable products, and charge a tipping fee on the incoming waste.

Without recycling businesses which are ready and able to recycle food waste, generators will be unable to recycle that waste, regardless of their desire to do so. Without investment, substantial progress in food waste recycling will be unattainable. Accordingly, the SWRRG proposes to plan and implement an investment forum, to bring entrepreneurs who wish to develop food waste/organics recycling businesses together with potential investors. The forum would serve to train the entrepreneurs how best to plan and create a food waste recycling business, including the development of a business plan as well as being able to negotiate through technological and regulatory hurdles. The forum and its preparation would also educate investors about food waste recycling, its realities and its enormous benefits to the state and to the investment community.

The continuous development and expansion of local food waste recycling businesses will benefit Atlantic County and the State. Therefore municipalities, counties and the state can make this process less uncertain by investing some time and/or money in generator outreach and training. Government at all levels can enact ordinances or regulations which will provide incentives for generators to switch to food waste recycling, once facilities come on line.

Hindrances to Food Waste Recycling

The Nature of the Material

Although the optimal moisture content of material for composting is approximately 50-60%, the typical moisture content of food waste can be up to 70%. This relatively high moisture content makes collection more difficult than for the more traditional dry components of MSW. Moist materials are more likely to develop odors and thus collection systems would have to be designed to minimize odor problem. In addition, dry materials, such as leaves and/or cardboard, must be added to food waste prior to composting to decrease potential odor problems associated with high moisture content and zones of anaerobic degradation. The carbon to nitrogen (C/N) ratio, another important parameter for composting, of food waste is generally less than the optimal ratio of 25:1 and thus materials with a higher C/N ratio, such as paper, cardboard, and/or leaves must be added to food waste prior to composting.

Lack of Available Facilities and Cost

In order to locate a successful food waste recycling facility, several factors must be considered including, but not limited to, positive sentiment by local, County and public organizations, haul distance from the generators to the facility and distance from the facility to the nearest residences. Currently, the capacity to accommodate food waste recycling on a large scale is not in place. Only one large-scale facility for composting of food waste exists in New Jersey. In addition, New Jersey with a very high population density and lack of available land of sufficient size makes siting an outdoor windrow facility very difficult, especially in the northeastern portion of the state. As a result, the feasibility of using large indoor in-vessel composting facilities or digesters would most likely have to be assessed if food waste recycling on a State-wide basis was to be pursued. These facilities minimize the odors and environmental impacts of windrow composting, produce similar quality compost in a reduced time span, and require less land area; however, they have significantly higher capital costs associated with construction and operation. These costs vary significantly, based on design and operating criteria. Digesters offer the added benefit of producing methane, which can be used in power generating operations. However, taking on costs associated with siting and constructing any type of new facility will most likely not happen any time soon due to debt repayment obligations that most counties are still under and a reluctance to divert any new solid waste types from their current disposal facilities.

Lack of Confidence

Another problem with food waste compost is the lack of confidence the public or other end users have in the quality of the material. Many investigations in Europe indicate that quality and marketing of the end product is the most crucial composting issue. In order to increase the confidence and thus demand for organic waste compost, clear and uniform regulations with regard to what is suitable to be composted and how the end product should be managed and controlled need to be developed and supported on a state and national scale.

The US Composting Council (USCC) has initiated a Seal of Testing Assurance (STA) Program, which intends to improve customer confidence in compost quality by encouraging compost producers to employ standardized analytical methods to test the chemical, physical and biological quality of their products. If the compost is sent to approve laboratories and meets all state and federal regulations concerning heavy metals and pathogens, the USCC will approve the compost as "STA certified" permitting the use of the STA logo on the bagged product. This program closely resembles the successful programs followed in Europe in providing consistent quality compost products. However, the program is still in its infancy and until the demand for a certified product increases, the number of participants in the STA program will be limited. In addition, each state has different regulations and standards for certain types of compost and it's difficult to satisfy a national customer base.

Overall, food waste recycling is an idea that the State wants to promote. This Plan update does not propose specific solutions to the problem, but emphasizes the need to seek the input of all stakeholders, including generators, haulers, compositors and markets in an attempt to determine how best to proceed with moving food waste recycling forward in New Jersey.

Single-Stream Recycling

Single-stream recycling is being considered by more and more municipalities across the country as a possible way to increase participation in recycling programs. The theory behind single-stream collection is that it simplifies the process for the participant and can increase both participation rates and the volume of material collected. Residents and business can place recyclables in a single container for pickup and no longer need to separate these materials in their home or workplace. Fewer trucks are needed for collection, and the system allows for the use of automated collection, which can reduce injuries.

However, there may be hidden costs that make the commingling of recyclables a less than ideal solution. While studies seem to show a higher participation rate by residents in single-stream recycling programs, it also can lead to reduction in the usefulness of the materials. For example, faced with product contamination by glass shards and other debris, paper mills must either turn down loads from single stream communities or absorb the additional costs of decontamination.

A recent study by Resource Recycling indicates that in some areas single stream recycling may prove its worth, but cost effectiveness depends on many factors, including public involvement and the availability of enough financial resources to address the issues presented.

APPENDIX D
ATLANTIC COUNTY
2006 RECYCLING TONS BY MUNICIPALITY AND MATERIAL TYPE

| MATERIAL TYPE | Total Tons by Material | Absecon | Atlantic City | Brigantine | Buena | Buena Vista | Corbin City | Egg Harbor City | Egg Harbor Twp. | Estell Manor | Folsom | Galloway |
|------------------------------------|---------------------------|-----------|---------------|------------|----------|-------------|----------------|--------------------|--------------------|-----------------|----------|-----------|
| Corrugated | 9,110.29 | 234.91 | 1,982.12 | 258.11 | 78.32 | 103.84 | 0.88 | 88.40 | 1,322.79 | 42.14 | 33.49 | 930.33 |
| Mixed Office Paper | 3,365.18 | 70.56 | 1,026.87 | 74.72 | 22.91 | 345.06 | 0.25 | 25.59 | 273.40 | 12.20 | 9.69 | 233.81 |
| Newspaper | 19,158.50 | 780.61 | 2,196.92 | 857.70 | 260.22 | 420.06 | 31.23 | 293.76 | 3,045.22 | 140.02 | 111.28 | 1,784.08 |
| Other Paper/Mag/JunkMail | 42.54 | 0.00 | 41.91 | 0.00 | 0.00 | 0.00 | 0.63 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Glass Containers | 7,518.33 | 287.77 | 830.61 | 316.19 | 95.93 | 188.20 | 18.55 | 108.29 | 1,122.61 | 51.62 | 41.02 | 984.83 |
| Aluminum Containers | 4,708.17 | 17.87 | 82.88 | 19.64 | 5.96 | 17.70 | 1.33 | 6.73 | 69.72 | 3.21 | 2.55 | 64.93 |
| Steel Containers | 3,646.17 | 48.47 | 309.06 | 53.25 | 16.16 | 21.42 | 2.65 | 18.24 | 189.07 | 8.69 | 6.91 | 184.81 |
| Plastic Containers | 1,986.54 | 77.26 | 264.60 | 84.54 | 25.65 | 39.25 | 3.98 | 28.95 | 300.15 | 13.80 | 10.97 | 197.91 |
| Heavy Iron | 28,607.76 | 689.89 | 3,947.04 | 1,035.77 | 258.42 | 536.11 | 31.11 | 1,358.93 | 4,459.41 | 179.78 | 356.40 | 2,616.36 |
| Non-Ferrous/Aluminum Scrap | 23,070.69 | 611.51 | 3,393.23 | 1,007.81 | 300.44 | 583.37 | 36.31 | 1,218.99 | 3,243.85 | 146.95 | 484.98 | 2,587.00 |
| White Goods & Light Iron | 13,363.26 | 1,506.46 | 2,298.00 | 430.79 | 164.67 | 277.86 | 16.01 | 156.70 | 1,061.04 | 224.37 | 70.30 | 1,994.38 |
| Anti-freeze | 79.23 | 0.40 | 4.97 | 2.45 | 0.01 | 0.02 | 0.00 | 1.06 | 18.29 | 0.00 | 0.00 | 9.71 |
| Batteries (Automobile) | 449.09 | 26.35 | 36.94 | 0.21 | 28.75 | 0.05 | 0.00 | 29.28 | 0.19 | 4.91 | 0.03 | 20.16 |
| Automobile Scrap | 21,018.43 | 366.12 | 1,148.75 | 315.08 | 103.40 | 731.63 | 11.71 | 2,177.75 | 920.26 | 228.18 | 54.86 | 1,051.15 |
| Tires | 502.79 | 2.81 | 36.14 | 0.00 | 3.56 | 12.38 | 0.00 | 4.95 | 66.07 | 0.69 | 0.28 | 99.54 |
| Used Motor Oil | 1,594.12 | 97.84 | 125.53 | 19.91 | 7.68 | 1.46 | 0.00 | 37.32 | 247.05 | 0.52 | 2.05 | 165.00 |
| Brush/Tree Parts | 16,786.84 | 529.93 | 258.89 | 319.52 | 430.03 | 0.00 | 26.52 | 117.57 | 5,399.91 | 7.85 | 1.96 | 4,180.58 |
| Grass Clippings | 11,953.60 | 948.90 | 304.89 | 575.14 | 0.10 | 154.20 | 0.00 | 211.28 | 2,580.86 | 4.11 | 3.38 | 1,118.87 |
| Leaves | 30,371.31 | 1,382.60 | 203.26 | 383.43 | 640.61 | 201.00 | 0.00 | 140.85 | 5,505.12 | 2.74 | 2.25 | 6,496.38 |
| Stumps | 6,315.97 | 326.00 | 553.34 | 58.50 | 0.00 | 232.48 | 0.00 | 134.75 | 1,440.00 | 0.00 | 39.00 | 2,616.50 |
| Batteries (Dry Cell) | 2.66 | 0.00 | 1.33 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.11 | 0.00 | 0.00 | 0.18 |
| Concrete / Asphalt / Brick / Block | 145,131.85 | 6,481.40 | 35,702.22 | 6,417.85 | 1,150.26 | 576.91 | 11.79 | 2,064.81 | 14,460.13 | 86.96 | 436.18 | 22,869.73 |
| Food Waste | 8,952.18 | 114.71 | 8,410.55 | 0.00 | 0.00 | 2.80 | 0.00 | 0.00 | 23.70 | 0.00 | 0.00 | 275.81 |
| Consumer Electronics | 18.71 | 0.03 | 0.12 | 0.00 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 18.51 |
| Other Material Not Listed | 52.46 | 0.00 | 0.04 | 4.97 | 0.66 | 0.00 | 0.00 | 3.32 | 0.00 | 1.42 | 0.56 | 0.02 |
| Other Glass | 1,526.49 | 32.10 | 410.97 | 30.94 | 403.93 | 0.00 | 0.00 | 19.62 | 247.58 | 4.53 | 0.08 | 86.22 |
| Other Plastic | 23.83 | 0.04 | 0.22 | 0.00 | 0.00 | 0.00 | 0.00 | 0.02 | 0.17 | 0.01 | 0.01 | 16.06 |
| Oil Contaminated Soil | 112,026.06 | 2,006.78 | 50,530.10 | 2,836.55 | 520.95 | 182.73 | 11.50 | 2,423.89 | 15,312.74 | 295.66 | 74.11 | 5,759.49 |
| Process Residue | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Textiles | 1,144.77 | 348.82 | 43.51 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 217.87 | 0.00 | 0.00 | 505.50 |
| Wood Scraps | 3,180.82 | 13.08 | 1,030.19 | 1.95 | 16.67 | 9.94 | 0.00 | 32.84 | 248.65 | 0.01 | 7.25 | 1,063.93 |
| TOTAL | 475,708.64 | 17,003.22 | 115,175.20 | 15,105.02 | 4,535.30 | 4,638.47 | 204.45 | 10,703.89 | 61,776.96 | 1,460.37 | 1,749.59 | 57,931.78 |

Shaded categories considered to be non-TYPE 10 for this report.

APPENDIX D
ATLANTIC COUNTY
2006 RECYCLING TONS BY MUNICIPALITY AND MATERIAL TYPE

| MATERIAL TYPE | Hamilton | Hammoniton | Linwood | Longport | Margate | Mullica | Northfield | Pleasantville | Port Republic | Somers Point | Ventnor | Weymouth |
|------------------------------------|-----------|------------|-----------|----------|-----------|----------|------------|---------------|---------------|--------------|-----------|----------|
| Corrugated | 1,014.11 | 320.97 | 187.81 | 41.99 | 398.69 | 157.72 | 254.00 | 290.53 | 23.17 | 1,075.75 | 207.58 | 62.64 |
| Mixed Office Paper | 333.77 | 211.08 | 54.37 | 12.16 | 84.36 | 45.66 | 74.00 | 84.65 | 6.71 | 285.14 | 60.09 | 18.13 |
| Newspaper | 1,702.96 | 1,066.52 | 624.09 | 139.53 | 945.55 | 524.12 | 844.00 | 945.40 | 76.99 | 1,470.31 | 689.78 | 208.15 |
| Other Paper/Mag/JunkMail | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Glass Containers | 687.95 | 393.17 | 230.07 | 51.44 | 348.57 | 193.21 | 311.00 | 355.89 | 28.38 | 542.02 | 254.28 | 76.73 |
| Aluminum Containers | 3,155.82 | 1,098.82 | 14.29 | 3.19 | 21.65 | 12.26 | 19.00 | 34.03 | 1.76 | 34.27 | 15.79 | 4.77 |
| Steel Containers | 113.69 | 2,270.32 | 38.75 | 8.66 | 58.71 | 32.54 | 52.00 | 59.94 | 4.78 | 91.29 | 43.83 | 12.93 |
| Plastic Containers | 190.07 | 105.12 | 61.51 | 13.75 | 93.20 | 56.66 | 83.00 | 95.15 | 7.59 | 144.92 | 67.99 | 20.52 |
| Heavy Iron | 2,162.74 | 2,943.30 | 479.19 | 76.82 | 542.57 | 407.18 | 510.99 | 4,136.95 | 73.63 | 792.69 | 863.18 | 149.30 |
| Non-Ferrous/Aluminum Scrap | 1,840.22 | 977.83 | 566.34 | 86.41 | 653.40 | 791.76 | 606.21 | 1,484.10 | 83.41 | 1,188.25 | 1,004.30 | 174.02 |
| White Goods & Light Iron | 1,838.67 | 438.65 | 265.12 | 47.94 | 367.00 | 209.65 | 264.24 | 731.33 | 84.01 | 397.27 | 441.60 | 77.20 |
| Anti-freeze | 30.21 | 8.13 | 0.02 | 0.00 | 0.00 | 0.01 | 0.00 | 0.04 | 2.45 | 1.05 | 0.41 | 0.00 |
| Batteries (Automobile) | 39.72 | 235.30 | 0.45 | 0.10 | 0.29 | 5.90 | 0.00 | 12.25 | 0.01 | 6.79 | 1.38 | 0.03 |
| Automobile Scrap | 6,435.65 | 4,071.33 | 184.24 | 26.37 | 213.97 | 220.96 | 193.26 | 1,865.97 | 27.78 | 290.56 | 322.98 | 56.47 |
| Tires | 52.94 | 141.08 | 1.43 | 0.00 | 22.00 | 3.77 | 25.00 | 18.28 | 1.93 | 2.22 | 5.07 | 2.65 |
| Used Motor Oil | 298.80 | 198.71 | 9.81 | 2.74 | 246.19 | 1.06 | 3.00 | 4.47 | 35.76 | 84.68 | 1.80 | 2.74 |
| Brush/Tree Parts | 757.78 | 622.49 | 1,055.10 | 60.36 | 418.69 | 182.10 | 737.00 | 561.72 | 52.49 | 755.50 | 260.28 | 50.57 |
| Grass Clippings | 682.17 | 146.12 | 1,185.03 | 59.08 | 536.08 | 87.57 | 1,327.00 | 972.68 | 94.41 | 504.46 | 420.25 | 37.02 |
| Leaves | 454.78 | 10,040.75 | 1,500.02 | 39.38 | 357.39 | 187.71 | 885.00 | 648.45 | 62.94 | 931.74 | 280.23 | 24.68 |
| Stumps | 125.40 | 43.59 | 0.00 | 0.00 | 0.00 | 61.25 | 100.00 | 530.00 | 55.16 | 0.00 | 0.00 | 0.00 |
| Batteries (Dry Cell) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.04 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Concrete / Asphalt / Brick / Block | 2,980.35 | 6,009.85 | 5,658.41 | 3,822.54 | 18,490.55 | 191.76 | 5,119.64 | 2,555.98 | 845.28 | 6,174.23 | 2,910.97 | 114.05 |
| Food Waste | 0.00 | 0.00 | 0.00 | 0.00 | 84.00 | 0.00 | 0.00 | 0.00 | 0.00 | 40.61 | 0.00 | 0.00 |
| Consumer Electronics | 0.00 | 0.04 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Other Material Not Listed | 13.86 | 0.00 | 11.88 | 0.77 | 4.19 | 0.90 | 0.00 | 4.75 | 0.00 | 0.00 | 4.35 | 0.77 |
| Other Glass | 34.91 | 27.73 | 18.49 | 3.21 | 23.87 | 8.84 | 26.00 | 63.49 | 1.78 | 44.58 | 32.93 | 4.69 |
| Other Plastic | 0.00 | 0.07 | 0.00 | 0.01 | 0.00 | 0.03 | 0.00 | 0.10 | 0.01 | 7.01 | 0.07 | 0.00 |
| Oil Contaminated Soil | 9,395.33 | 2,853.70 | 3,073.16 | 310.84 | 3,530.92 | 708.87 | 1,931.35 | 4,241.21 | 126.24 | 2,809.77 | 2,769.32 | 320.85 |
| Process Residue | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Textiles | 0.00 | 0.00 | 29.07 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Wood Scraps | 496.63 | 15.21 | 3.36 | 0.01 | 3.53 | 3.41 | 49.00 | 177.17 | 0.00 | 4.91 | 3.08 | 0.00 |
| Total by Municipality | 34,838.53 | 34,239.88 | 15,252.01 | 4,807.30 | 27,445.37 | 4,094.94 | 13,414.69 | 19,874.53 | 1,696.67 | 17,680.02 | 10,661.54 | 1,418.91 |

Shaded categories considered to be non-TYPE 10 for this report.

APPENDIX E
ATLANTIC COUNTY MUNICIPALITY CODES

| <u>CODE NUMBER</u> | <u>MUNICIPAL NAME</u> | <u>COUNTY NAME</u> |
|---------------------------|------------------------------|---------------------------|
| 0101 | ABSECON CITY | ATLANTIC COUNTY |
| 0102 | ATLANTIC CITY | ✓ |
| 0103 | BRIGANTINE CITY | ✓ |
| 0104 | BUENA BORO | ✓ |
| 0105 | BUENA VISTA TWP | ✓ |
| 0106 | CORBIN CITY | ✓ |
| 0107 | EGG HARBOR CITY | ✓ |
| 0108 | EGG HARBOR TWP | ✓ |
| 0109 | ESTELL MANOR CITY | ✓ |
| 1110 | FOLSOM BORO | ✓ |
| 0111 | GALLOWAY TWP | ✓ |
| 0112 | HAMILTON TWP | ✓ |
| 0113 | HAMMONTON TWP | ✓ |
| 0114 | LINWOOD CITY | ✓ |
| 0115 | LONGPORT BORO | ✓ |
| 0116 | MARGATE CITY | ✓ |
| 0117 | MULLICA TWP | ✓ |
| 0118 | NORTHFIELD CITY | ✓ |
| 0119 | PLEASANTVILLE CITY | ✓ |
| 0120 | PORT REPUBLIC CITY | ✓ |
| 0121 | SOMERS POINT CITY | ✓ |
| 0122 | VENTNOR CITY | ✓ |
| 0123 | WEYMOUTH TWP | ✓ |