

## **A. SOLID WASTE PLANNING**

### **A.1. Synopsis of Significant Legal Decisions Since the Last State Plan**

As the most densely populated state in the union, located between major metropolitan centers, New Jersey has long been a battleground over solid waste disposal. The scarcity of open space for landfill facilities, combined with a large waste-generating population, has forced New Jersey to expend tremendous government resources and energy to ensure safe and adequate disposal capacity for the waste generated by its citizens. Some of those efforts, such as New Jersey's 60 % recycling rate, have been huge successes. Others, such as its effort to preserve in-state landfill capacity for in-state generators, have not. See, *Philadelphia v. New Jersey*, 437 U.S. 617 (1978).

The legal uncertainty regarding permissible government regulation of solid waste collection and disposal has compounded the problem. After *Philadelphia v. New Jersey*, New Jersey's counties embarked on a State-mandated program to finance and build sufficient in-state capacity to dispose of New Jersey's solid waste. Critical to the success of this program was flow control, which guaranteed the flow of solid waste and revenue necessary to maintain this capacity. Flow control originally withstood legal challenge, based on a finding that the local benefits outweighed the incidental burden on commerce. *J. Filiberto Bros. Sanitation v. NJDEP*, 857 F.2d 913 (3rd Cir. 1988). However, long after over \$1.5 billion in public debt had been incurred to build facilities, the Third Circuit reversed its prior ruling, based on the U.S. Supreme Court's decision in *Carbone v. Town of Clarkstown*, 511 U.S. 383 (1994). *Atlantic Coast Demolition and Recycling v. Board of Freeholders, Atlantic County*, 48 F.3d 701 (3d Cir. 1995), after remand 112 F.3d 652 (3d Cir. 1997) cert. denied 522 U.S. 966 (1977).

Since the 1970's New Jersey has regulated the collection, processing and disposal of solid waste through the Solid Waste Management Act, N.J. Stat. Ann. 13:1E-1 et seq. (SWMA), and the Solid Waste Utility Control Act, N.J. Stat. Ann. 48:13A-1 et seq. (SWUCA). The SWMA requires each district/county to develop a comprehensive plan for the collection, transportation and disposal of all solid waste generated in the district. N.J. Stat. Ann. 13:1E-19, 13:1E-21. The New Jersey Department of Environmental Protection (DEP or Department) reviews and certifies each district plan to ensure its consistency with statewide solid waste management objectives, criteria and standards. N.J. Stat. Ann. 13:1E-24. Under SWUCA, all solid waste facilities in the state were designated as utilities, thus subject to rate regulation ensuring a guaranteed rate of return in exchange for agreeing to accept all waste from within their service areas. N.J. Stat. Ann. 48:13A-1 et seq.

The need for comprehensive public management of solid waste in New Jersey arose out of a crisis in the 1970's, as the development of new, environmentally sound disposal sites could not keep pace with the closure of old dumps and the increase in solid waste generation. In addition, the Legislature's actions were prompted by New Jersey's long history of anti-competitive conduct in the solid waste industry. As unsafe facilities within the state were closed, New Jersey became a net exporter of waste. At times, New Jersey was turned away from out-of-state landfills, as neighboring states also grappled with outdated and unsafe facilities. Accordingly, New Jersey pressed forward with its ambitious program to reduce the amount of waste it generates through mandatory recycling and to build state-of-the-art capacity for the remainder of its waste.

As a result, counties that chose to build facilities financed those projects through revenue bonds issued by the counties or by their utility and improvement authorities. The revenue assured by the guaranteed flow of waste to the publicly-owned facility backed these bonds, representing billions of dollars of public debt. By 1990, thirteen new facilities had been built with public funds.

After the Third Circuit determined in *Atlantic Coast* that *Carbone* invalidated New Jersey's waste flow system, each county struggled to address the new legal landscape. Those counties that contracted with private entities for solid waste services modified their systems. Disposal contracts were either rebid in a process open to both in-state and out-of-state bidders, as permitted by the decision in *Harvey & Harvey v. Delaware Solid Waste Authority*, 68 F.3d 788 (3d Cir. 1995) cert. denied 516 U.S. 1173 (1996), or waste was permitted to flow freely based on market forces or voluntary municipal contracts.

Counties, however, that expended public funds to construct facilities could not as easily modify their systems and still pay the debt incurred. Their rates were generally higher than many out-of-state facilities, due to factors such as availability of open space and density of population, the inability to reject unprofitable portions of the waste stream, and various taxes and surcharges designed to pay for recycling programs and ensure the proper closure of landfills. These counties could not simply reinstitute waste flow through a non-discriminatory bidding process, as the entity awarding the bid would also be one of the bidders. It was thus impossible to create the "level playing field" necessary to satisfy Federal Court prohibitions against discriminatory market practices. Other efforts to offset debt payments and allow these public facilities to compete economically with landfills in less populated areas also failed.

As a result, the State has stepped in to subsidize the debt payments of certain counties and forgive certain solid waste-related state loans in order to prevent default and the difficulties that could result for public agencies statewide that seek to raise capital. These subsidies and loans are only a preliminary solution.

In *Philadelphia v. New Jersey*, 437 U.S. 617 (1978) the United States Supreme Court barred New Jersey from restricting the ability of private landfill operators to accept and process solid waste from outside the state. Although the Court recognized the economic and environmental goals of New Jersey's prohibition, it found that the means of achieving them "imposes on out-of-state commercial interests the full burden of conserving the State's remaining landfill space." *Id.* at 626-28. The Court, however, made clear that "[w]e express no opinion about New Jersey's power, consistent with the Commerce Clause, to restrict to state residents access to state-owned resources, ... or New Jersey's power to spend state funds solely on behalf of state residents and businesses." *Id.* at 627, n.6 (citations omitted). Fourteen years later, in *Fort Gratiot Sanitary Landfill v. Michigan Department of Natural Resources*, 504 U.S. 353 (1992), the Court applied the ruling in *Philadelphia v. New Jersey* to Michigan's solid waste management system, which prohibited private landfills from accepting waste from different counties within the State. Once again, the Court was careful to stress that the case did not "raise any question concerning policies that municipalities or other governmental agencies may pursue in the management of publicly-owned facilities. The case involves only the validity of the Waste Import Restrictions as they

apply to privately-owned and operated landfills." *Id.* at 358-59. See also, *Oregon Waste Systems v. Department of Environmental Quality, State of Oregon*, 511 U.S. 93, 106, (1994) n.9 (noting that the case did not require the court to decide whether Oregon could spread the cost of solid waste management through market participation or other means not involving the regulation of private interstate commerce).

*Carbone v. Town of Clarkstown*, 511 U.S. 383 (1994), upon which the opponents of flow control universally rely, also involved a private facility, and thus did not directly decide the issue raised in *United Haulers Association v. Oneida-Herkimer Solid Waste Management Authority*, 261 F.3d 245 (2d. Cir. 2001). The Court did, however, note that public ownership and/or subsidy would effect the legality of a flow control measure. The Court stated:

Clarkstown maintains that special financing is necessary to ensure the long-term survival of the designated facility. If so, the town may subsidize the facility through general taxes or municipal bonds. But having elected to use the open market to earn revenues for its project, the town may not employ discriminatory regulation to give that project an advantage over rival businesses from out of State. *Id.* at 393.

Thus, the United States Supreme Court has not ruled on the legality of a flow control measure where a government agency, rather than electing "to use the open market," has instead invested public funds to control solid waste management within its borders and/or build public facilities.

The absence of a ruling on this issue has created a quagmire for local officials in New Jersey and elsewhere seeking to ensure safe and adequate disposal of waste generated by their citizens. *Carbone* has not been interpreted to require virtually automatic invalidation of flow control measures. Many Federal and State courts have permitted flow control under specific circumstances, so that the validity of these public measures literally depends on the jurisdiction in which the challenge is heard and hair-splitting distinctions between the provisions at issue.

For example, several courts have found that a government entity that enters the market as either a buyer or seller of solid waste disposal or collection services may regulate the flow of waste without violating the dormant Commerce Clause. The Courts of Appeals for the Third and Eighth Circuits have held that county and city-owned and operated landfills may bar waste from outside the jurisdiction. *Red River Service Corp. v. City of Minot, North Dakota*, 146 F.3d 583 (8th Cir. 1998); *Swin Resource Systems v. Lycoming County, Pa.*, 883 F.2d 245 (3d Cir. 1989) cert. denied 493 U.S. 1077 (1990) The Second Circuit in the decision below, held that a county could direct waste generated by its citizens to a local facility, as long as that facility was publicly owned. *United Haulers Association v. Oneida-Herkimer Solid Waste Management Authority*, supra, 261 F.3d 245. The Third Circuit, however, found New Jersey's system of directing waste to publicly owned facilities violated the Commerce Clause. *Atlantic Coast Demolition and Recycling v. Board of Freeholders, Atlantic County*, supra.

Where the government entities are the purchasers of solid waste services, the confusion is even greater. Several Courts of Appeals have held that a government entity may award exclusive rights to collect, process or dispose of waste as long as the system for choosing the exclusive provider does not discriminate against out-of-state bidders. *Maharg, Inc. v. Van Wert Solid*

Waste Management District, 249 F.3d 544 (6th Cir. 2001) pet. cert. filed 70 U.S.L.W. 3291 (Oct. 10, 2001) (No. 01-615) Houlton Citizens' Coalition v. Town of Houlton, 175 F.3d; 178 (1st Cir. 1999); Harvey & Harvey v. Delaware Solid Waste Authority, 68 F.3d 788 (3d Cir. 1995). Others have held that regardless of the bidding process, a government entity may enter the market as a buyer of services from private companies without implicating the Commerce Clause, as long as certain criteria were met. See, Huish Detergents, Inc. v. Warren County, Kentucky, 214 F.3d 707 (6th Cir. 2000) (disposal ordinance and franchise agreement with private hauler unconstitutional absent expenditure of public funds); SSC Corp. v. Town of Smithtown, 66 F.3d 502 (2d Cir. 1995) cert. denied 516 U.S. 1112 (1996) (town may contract with a single private company for collection of its residents' waste and direct that company through contract to go to a particular disposal facility, but town can not use its regulatory power to force other collectors to use preferred disposal location); USA Recycling v. Town of Babylon, 66 F.3d 1272 (2d Cir. 1995) cert. denied, 517 U.S. 1135 (1996) (town may "take over" collection and disposal and eliminate private market consistent with Commerce Clause even if it imposes sanctions for violating flow control ordinance); Barker Brothers Waste, Inc. v. Dyer County Legislative Body, 923 F.Supp. 1042 (W.D. Tenn. 1996) (market participation exception to Commerce Clause applies to flow control ordinances only if the government entity participates in both the collection and the disposal market). But see, Waste Recycling v. Southeast Alabama Solid Waste Disposal Authority, 814 F.Supp. 1566 (M.D. Ala. 1993), aff'd sub nom. Waste Recycling v. SE AI Solid, 29 F.3d 641 (11th Cir. 1994) (market participant exception does not apply to exclusive town contract for collection that designates disposal site).

In November of 2001, the State of New Jersey filed an amicus curiae brief to the US Supreme Court on the appeal of the United Haulers Association v. Oneida-Herkimer Solid Waste Management Authority case. In that brief, the State indicated: "While granting certiorari in this case will not resolve all of the confusion in the Courts of Appeals regarding the permissible parameters of local government participation in solid waste markets, it will provide clarity in one key area that has never been resolved by this Court, i.e., whether local government discriminates against interstate commerce by expending public resources to comprehensively manage solid waste and provide for its disposal at public facilities. The Court below found that such a system was not the type of protectionist measure that implicates the Commerce Clause. The Third Circuit, however, in striking down New Jersey's system, ignored the public/private distinction found determinative in this case. Other courts have done the same, without discussion of whether public ownership of the facility effected the Commerce Clause analysis. See, Waste Systems Corp. v. County of Martin, 985 F.2d 1381 (8th Cir. 1993); Coastal Carting v. Broward County, Fla., 75 F.Supp. 2d. 1350 (S.D. Fla. 1999); Waste Recycling, Inc. v. Southeast Alabama Solid Waste Disposal Authority, 814 F.Supp. 1566 (M.D. Ala. 1993). Aff'd 29 F.3d 641 (11th Cir. 1994) Cf. Southcentral Pennsylvania Waste Haulers' Association v. Bedford-Fulton-Huntingdon Solid Waste Authority, 877 F. Supp. 935 (M.D. Pa. 1994)."

Unfortunately, the Supreme Court refused to hear the appeal of the Oneida-Herkimer case. As a result, inconsistent rulings in the Federal Appeals Courts have left unresolved certain issues related to government management of solid waste. Specifically, it is unclear whether or not the Commerce Clause is implicated when local government, using public money to construct disposal facilities, then flows waste to those facilities. In the Third Circuit, which includes New

Jersey, it would appear as though the Commerce Clause is a prime consideration. However, in the Second Circuit, that would not appear to be the case.

## **A.2. County Solid Waste Management Planning**

In 1970, the State of New Jersey adopted the Solid Waste Management Act (SWMA) which established a regulatory framework for the implementation of environmental standards for solid waste management. The SWMA was amended in 1975 to establish the current solid waste management planning process. The 1975 amendments assigned primary planning responsibilities, subject to detailed state level review and approval, to 22 solid waste management districts, which are comprised of the 21 New Jersey counties and the New Jersey Meadowlands Commission (NJMC). The SWMA required the districts to develop solid waste systems that maximize the use of resource recovery technologies, including recycling, composting and incineration, in recognition of the state's need to reduce the dependence on landfill disposal. By the early 1980's, the Department had approved solid waste management plans for each of the 22 solid waste management districts as was required by the SWMA.

The development of county solid waste systems to meet the disposal needs for the waste generated by the residents of the state has been varied. Currently, as the following county summaries indicate, 13 districts/counties have solid waste landfills (one of these is a privately owned landfill) and 5 counties have resource recovery facilities. Of the 5 counties with resource recovery facilities, 3 also have landfills to receive non-processible waste. As a response to recent court decisions noted previously, four waste management systems are in use by the counties.

### Non-discriminatory Bidding Flow Control

Under this system, as a result of a non-discriminatory bidding process, which allows 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 subject of the contract is required to be disposed of at the contracted location under penalty of law.

### 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.

### 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 the solid waste.

### 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.

Eight counties have demonstrated non-discriminatory bidding processes for solid waste systems and/or have approved solid waste disposal controls from the Department. The remaining 13

counties utilize either a market participant or free market approach for disposal of the solid waste generated within their borders. Also, due to the previously noted debt situation that has arisen with the counties that developed solid waste facilities or attempted to develop facilities, new solid waste facility development with public financing will be a challenge for both the counties and the state.

The New Jersey Solid Waste Database Trends Analysis table, located in Table A-1, contains the solid waste generation, recycling and disposal statistics from 1985 through 2003. Also, located in Table A-2 is the Solid Waste Exports Table. As indicated in these tables, solid waste generation has been steadily increasing since 1985. Various factors may be responsible for the escalating solid waste generation rate such as the strong economic conditions New Jersey has experienced, population increases and increased product packaging for security against product tampering. The tables also indicate that during the past several years recycling tonnages have been static. The possible causes of the static recycling tonnages are addressed in Section B on recycling. However, the increasing solid waste generation and static recycling tonnages have resulted in a decreasing recycling rate since 1997.

A comparison of the previous Statewide Solid Waste Management Plan and this Plan Update indicates the evolutionary process of county and state solid waste management planning. State and federal court actions have required great flexibility in the planning process. The Department firmly supports the provisions of the SWMA that commit to county solid waste management planning primacy, with detailed state oversight, for the solid waste management planning process. In the recent past, proposals have been made in New Jersey legislature to localize solid waste management planning to the municipal level. It is the Department's position that the municipal government is not the appropriate level of government for the planning process because it would inhibit facility development, it would be much more difficult to develop and implement an environmentally comprehensive and cost effective system, and municipal government would not be able to address regional emergency situations that occasionally arise for solid waste disposal.

The state, through this Solid Waste Management Plan Update, shall establish the overall policy objectives and goals for solid waste management in New Jersey. The counties and the NJMC shall have the responsibility for developing their respective district solid waste management plans consistent with the state's goals and objectives. Therefore, each district shall, within one year of the adoption of the Updated Statewide Solid Waste Management Plan, adopt and submit to the Department, an updated district solid waste plan. This district plan update shall demonstrate consistency with the State Plan. Further, the district plans shall reiterate the district plan requirements contained in N.J.S.A. 13:1E-21. Specifically, revised district plan updates shall include, but not be limited to the following components:

- 1) Designation of the department, unit or committee of the county government (or district in the case of the New Jersey Meadowlands Commission) to supervise the implementation of the district plan;
- 2) An inventory of the quantity of solid waste generated within the district for the ten-year period commencing with the adoption of updated district solid waste management plan;

- 3) An inventory of all solid waste and recycling facilities (lot and block and street address) including approved waste types and amounts, hours of operation and approved truck routes;
- 4) An outline of the solid waste disposal strategy to be utilized by the district for a ten-year planning period;
- 5) A procedure for the processing of applications for inclusion of solid waste and recycling facilities within the district solid waste management plans. The procedure shall state the applicant requirements for inclusion into the district plan and the specific county review process/procedures, including time frames for county approvals or rejections and subsequent submittals to the Department. **Note-** the criteria for inclusion shall **not** include a requirement that local zoning or planning board approval(s) be obtained as a condition for inclusion within the district solid waste management plan, nor shall such a requirement be made a condition for subsequent construction or operation of any facility;
- 6) Utilizing the data supplied in Table B-1 that identifies the additional tonnage of recycled materials in the MSW stream (by material commodity types) required by each county to meet the mandated MSW recycling goal, a strategy for the attainment of the recycling goals as outlined above. The strategy shall include, as necessary:
  - a) the designation of the currently mandated recyclable materials and additional materials, if any, to be source separated in the residential, commercial and institutional sectors;
  - b) a listing of those entities providing recycling collection, processing and marketing services for each of the designated recyclable materials;
  - c) the communication program to be utilized to inform generators of their source separation and recycling responsibilities;
  - d) a comprehensive enforcement program that identifies the county and/or municipal entity(ies) responsible for enforcement of the recycling mandates, specifies the minimum number of recycling inspections that will be undertaken by these entities on an annual basis and details the penalties to be imposed for non-compliance with the municipal source-separation ordinance and county solid waste management plan. Additionally, the updated district plan shall include copies of each municipal source separation ordinance.

Regarding the municipal ordinance referenced above, it should be noted that, due to a number of factors including the experience of the Department relative to a coordinated recycling enforcement “sweep” in Hudson County in mid-2005, the Department has begun drafting a “model” municipal recycling ordinance. This model ordinance will include all those elements that are contained in statute as municipal responsibilities in this area, as well as recommended elements based on the past 20 years of state experience in recycling management. For example, though not specifically contained in the Recycling Act nor the Municipal Land Use Law, municipalities have the authority to require, as an element of permit issuance for construction or demolition activity, information related to the generation and disposition of materials generated as a result of these activities. The model ordinance being developed will provide guidance on incorporating this into the municipal demolition/construction permit process, as another way to increase responsible waste management, and increase recycling efforts in the construction industry. The Department intends to complete and distribute this model ordinance in the first quarter of 2006.

In the event that the district does not mandate additional materials for source separation and recycling, the revised plan shall include the above elements for each material currently

designated for recycling. Additionally, given the discussion in the recycling section of this statewide solid waste management plan update relative to targeting increases in recycling in the small business sector, multi-family housing developments and schools and other institutions, the revised plan shall indicate the anticipated increases in tonnage of recycled material, by material and by generating sector, in order to meet, at a minimum, the targets identified for each county in Table B-1.

Pursuant to the provisions of N.J.S.A. 13:1E-6, the Department is required to update not less than every 2 years the Statewide Solid Waste Management Plan. Historically, this requirement has been unmet. The Department is recommending that this legislative requirement for updating the Plan be expanded to once every 5 years.

### **A.3. County Plan Summaries**

New Jersey's 21 counties have a vital role to play in solid waste management with primacy in source reduction, recycling and disposal capacity planning. The following county-by-county summaries lists the current solid waste generation and recycling data for each of the counties and provides the historical and current solid waste management strategy implemented by the counties.

#### **Atlantic County**

##### **Current Status:**

In 2003, Atlantic County generated approximately 825,656 tons of solid waste. The county recycled approximately 473,786 tons and disposed of 351,870 tons, which calculates to a 57.4% recycling rate for the total waste stream. The county's documented municipal waste stream recycling rate was 25.2%. Atlantic County has a total of 10 Class B recycling facilities and 6 Class C (yard waste) recycling facilities.

##### **Pre-Atlantic Coast Strategy:**

Prior to the Atlantic Coast decision, a majority of the county's waste was disposed of at GROWS Landfill in Pennsylvania via the Atlantic County Utilities Authority's (ACUA) Transfer Station at the ACUA Environmental Park in Egg Harbor Township, which was included in the County Plan on July 17, 1989. The ACUA Transfer Station began operation under a Temporary Certificate to Operate (TCAO) on August 8, 1990. The facility received a permit to operate from the Department on November 5, 1990. Furthermore, on December 13, 1988, the County adopted an amendment, which proposed an interim landfill at the same site in Egg Harbor Township. On May 26, 1989, the Department approved with modification this amendment requiring the submission of a viable bird deterrent plan for the proposed landfill. On July 25, 1989, the County adopted a subsequent amendment, which outlined a bird deterrent plan for the proposed interim landfill. On September 5, 1989, the Department rejected the July 25, 1989 amendment because the bird deterrent plan was not viable. The Department did however, state that a limited use landfill might be appropriate for the site. On November 14, 1989, the County adopted a subsequent amendment, which designated a limited use landfill for waste types 13 and 27 (bulky waste and dry industrial waste, respectively). The Department approved the limited use landfill designation on April 30, 1990. The ACUA Landfill in Egg Harbor Township received a

Certificate of Authority to Operate (CAO) on March 18, 1992. Atlantic County had interdistrict agreements with Somerset, Hunterdon, Cape May, and Mercer Counties which have lapsed.

Post-Atlantic Coast Strategy:

In response to the Atlantic Coast decision, Atlantic County established a market participant strategy. On October 8, 1997, the Department issued to the ACUA a CAO for a research, development, and demonstration project at the limited use landfill to accept 300 tons per day (tpd) of type 10 municipal waste. On September 17, 1998, the Department issued another CAO to extend the research, development, and demonstration project until September 16, 1999 and increased the maximum amount of municipal waste that may be landfilled to 800 tpd and not to exceed 3,600 tons per week. In 2000, the Department approved a plan amendment to permit the disposal of municipal solid waste type 10 at the ACUA Landfill. On October 25, 2000, the Department issued a revised Solid Waste Permit, which allows for the disposal of all solid waste types at the ACUA Landfill. The Authority also owns and operates a state-of-the-art recycling center and compost facility which processes 52,000 tons per year. In addition, the ACUA provides solid waste, recycling, and yard waste collection services through contracts with municipalities, haulers, and businesses.

**Bergen County**

Current Status:

In 2003, Bergen County generated approximately 1,970,328 tons of solid waste. The county recycled approximately 1,011,796 tons and disposed of approximately 958,532 tons, which equates to a 51.4% recycling rate for the total waste stream. The county's documented municipal waste stream recycling rate was 42.1%. There are currently 3 Class B recycling facilities and 22 Class C recycling facilities operating within Bergen County.

Pre-Atlantic Coast Strategy:

Prior to the Atlantic Coast decision, Bergen County employed a disposal strategy in which the county's waste was delivered to either the Bergen County Utilities Authority (BCUA) Transfer Station, located in the Borough of North Arlington, or one of several private transfer stations prior to out-of-district disposal. The BCUA Transfer Station was included in the County Plan on January 27, 1988.

Bergen County also entered into interdistrict agreements with Essex and Union Counties to deliver waste to their respective resource recovery facilities. These agreements, however, have now expired or are void.

Post-Atlantic Coast Strategy:

Bergen County is currently implementing a 3-year interim solid waste plan which employs a free market system with each municipality charged with the responsibility of finding a solid waste disposal facility, regardless of the location of such facility, for their respective wastes. The County is currently conducting studies and formulating data to determine a proper long-term solid waste management plan for the district after the 3-year interim plan is concluded.

Thirty three municipalities within the county currently use the New Jersey Meadowlands Commission's (NJMC) 1-E Landfill site for the composting of leaves. Thirty three municipalities use either municipal sites or private vendors for leaf composting. The county has not yet identified the leaf disposal option(s) of four municipalities within the County Plan. The BCUA is currently in the process of developing a long-term plan for the composting of vegetative wastes.

### **Burlington County**

#### **Current Status:**

In 2003, Burlington County generated approximately 1,013,407 tons of solid waste. The county recycled approximately 542,728 tons and disposed of about 470,679 tons, which equates to a 53.6% recycling rate for the total waste stream. The county's documented municipal waste stream recycling rate was 40.6%. Burlington County currently has 5 Class B recycling facilities and 16 Class C recycling facilities.

#### **Pre-Atlantic Coast Strategy:**

Prior to the Atlantic Coast decision, all of Burlington County's solid waste was disposed of at the Burlington County Landfill, which is part of the Burlington County Solid Waste Management Facilities Complex in Florence and Mansfield Townships. This facility was included in the County Plan on November 10, 1982, and was originally permitted by the Department on December 14, 1987.

#### **Post-Atlantic Coast Strategy:**

As a result of the Atlantic Coast decision, Burlington County instituted a market participant strategy, which provides for voluntary delivery of solid waste to the Burlington County Solid Waste Management Facilities Complex (Complex) in Florence and Mansfield Townships for resource recovery. The Complex has a landfill, bulky waste transfer capabilities, and a household hazardous waste collection center.

### **Camden County**

#### **Current Status:**

In 2003, Camden County generated approximately 1,068,011 tons of solid waste. The county recycled about 542,518 tons and disposed of about 525,493 tons, which equates to a 50.8% recycling rate for the total waste stream. The County's documented municipal waste stream recycling rate was 30.7%. Camden County currently has 4 Class B recycling facilities, 8 Class C recycling facilities, and 1 Class D recycling facility.

#### **Pre-Atlantic Coast Strategy:**

Prior to the Atlantic Coast decision, all of Camden County's processible solid waste was disposed of at the South Camden Resource Recovery Facility. This facility was originally included in the County Plan on December 18, 1984. Construction of the facility was completed in March of 1991 and operations commenced on December 16, 1991. The Department issued a permit to operate the facility on June 27, 1996. Ash from the resource recovery facility was disposed of out-of-state. The bypass and non-processible waste was taken to the Pennsauken

Landfill, which was included in the County Plan on October 5, 1982, and issued a permit to operate by the Department on August 31, 1989.

Post-Atlantic Coast Strategy:

As a result of the Atlantic Coast decision, Camden County adopted a strategy to complete a nondiscriminatory procurement process for securing waste disposal services; also, Camden County implemented a strategy to regulate the flow of waste as a market regulator. On April 4, 2002, the Camden County Board of Chosen Freeholders adopted a plan amendment that included in the County Plan a new service agreement between the Pollution Control Finance Authority of Camden County and Camden County Energy Recovery Associates and the reestablishment of waste flow regulation within Camden County. On September 13, 2002, the Department approved the County Plan inclusion of the new service agreement between the Pollution Control Finance Authority of Camden County and Camden County Energy Recovery Associates. However, the Department remanded the County Plan inclusion of the reestablishment of waste flow regulation within Camden County pending submission of the documentation demonstrating that the agreement was reached in a non-discriminatory manner for both processible and non-processible waste. The Department has not yet received the documentation; therefore, Camden County currently uses a market participant strategy.

**Cape May County**

Current Status:

In 2003, Cape May County generated 507,532 tons of solid waste. The county recycled approximately 293,269 tons and disposed of 214,263 tons, which equates to a 57.8% recycling rate for the total waste stream. The county's documented municipal waste stream recycling rate was 40.8%. Cape May County currently has 4 Class B recycling facilities and 2 Class C recycling facilities.

Pre-Atlantic Coast Strategy:

Prior to the Atlantic Coast decision, all of Cape May County's solid waste was disposed of at the Cape May County Municipal Utilities Authority (CMCMUA) Sanitary Landfill, which is located on the Woodbine Borough/Upper Township border. The CMCMUA Landfill was included in the County Plan on March 1, 1983 and received a permit to operate from the Department on August 12, 1983. Most municipalities direct-hauled to the landfill, while other municipalities used the CMCMUA Transfer Station in Middle Township. Also, an Intermediate Processing Facility (Class A), a bulky waste recycling facility (Class B), and an exempt leaf composting facility are operated at the landfill site.

Post-Atlantic Coast Strategy:

As a result of the Atlantic Coast decision, Cape May County adopted an intrastate disposal strategy which mandates that all non-recycled solid waste generated within Cape May County which is not transported out-of-state for disposal shall be disposed of at the CMCMUA Sanitary Landfill located in Woodbine Borough and Upper Township, Cape May County.

## **Cumberland County**

### **Current Status:**

In 2003, Cumberland County generated about 512,158 tons of solid waste. The county recycled approximately 332,916 tons and disposed of 179,242 tons, which calculates to a 65% recycling rate for the total waste stream. The county's documented municipal waste stream recycling rate was 44.7%. Cumberland County currently has 3 Class B recycling facilities and 7 Class C recycling facilities.

### **Pre-Atlantic Coast Strategy:**

Prior to the Atlantic Coast decision, all of Cumberland County's waste was disposed of at the Cumberland County Landfill, which was part of the Cumberland County Solid Waste Complex, located in Deerfield Township. This facility was included in the County Plan on March 15, 1984 and received a permit to operate from the Department on December 30, 1985.

### **Post-Atlantic Coast Strategy:**

As a result of the Atlantic Coast decision, Cumberland County adopted a market participant strategy. This strategy allowed continued access to the Cumberland County Improvement Authority's (CCIA) solid waste management system to be made available on a voluntary participation basis through the execution of contracts with the County's fourteen municipalities; private, collectors/haulers; and governmental, private or institutional generators of waste. Upon execution of a contract with a municipality, the CCIA offers: disposal capacity; processing and marketing of recyclables; access to a minimum of one annual household hazardous waste collection event; free disposal of roadside litter, and limited amounts of bulky waste and demolition debris; program support; and pro-rata rebate of revenues from the recycling program (as long as no statewide recycling tax is in effect). Municipalities that do not elect to utilize the Cumberland County Solid Waste Complex Landfill do not receive any above noted services of the system.

## **Essex County**

### **Current Status:**

In 2003, Essex County generated approximately 1,919,401 tons of solid waste. The county recycled approximately 985,814 tons and disposed of about 933,587 tons, which equates to a 51.4% recycling rate for the total waste stream. The county's documented municipal waste stream recycling rate was 30.5%. There are currently 3 Class B recycling facilities and 8 Class C recycling facilities operating within Essex County.

### **Pre-Atlantic Coast Strategy:**

Prior to the Atlantic Coast decision, all of Essex County's processible solid waste was disposed of at the Essex County Resource Recovery Facility (ECRRF). This facility was originally included in the County Plan on July 1, 1981 and began operating in November of 1990. Ash from the resource recovery facility and bypass and non-processible wastes were disposed of at out-of-state landfills.

### **Post-Atlantic Coast Strategy:**

Essex County employs a bifurcated system for the disposal of processible solid wastes. The system includes municipalities either entering into voluntary contracts with the County for disposal of their processible wastes at the ECRRF or through non-discriminatory bidding process, to have their solid waste directed to either of two Waste Management of New Jersey transfer stations, one located at 864 Julia Street, in the City of Elizabeth, Union County, the other located in Hillsdale Township, Bergen County, for processing prior to out-of-state disposal. In 2002, 69% of the county's wastes were disposed of at the ECRRF. Thirty one percent of the county's type 10 solid waste was disposed of at out-of-state facilities. Ash from the resource recovery facility is direct-hauled out-of-state.

Also, through a non-discriminatory bidding process, Essex County currently delivers its non-processible solid waste (Type 13 and 13C, the non-recycled portion of Type 23, the non-processible portion of Type 27) to the New Jersey Meadowlands Commission's Erie Landfill, located in the Borough of North Arlington, Bergen County, for disposal.

### **Gloucester County**

#### **Current Status:**

In 2003, Gloucester County generated approximately 580,951 tons of solid waste. The county recycled about 296,596 tons and disposed of 284,355 tons, which equates to a 51.1% recycling rate for the total waste stream. The county's documented municipal waste stream recycling rate was 42.5%. Gloucester County currently has 5 Class B recycling facilities and 9 Class C recycling facilities.

#### **Pre-Atlantic Coast Strategy:**

Prior to the Atlantic Coast decision, all of Gloucester County's processible municipal waste was disposed of at the Gloucester County Resource Recovery Facility (RRF) in West Deptford Township and all bypass, non-processible waste, and non-hazardous ash was disposed of at the Gloucester County Landfill in South Harrison Township. The Gloucester County RRF was included in the County Plan on March 4, 1985 and the Gloucester County Landfill was originally included on March 19, 1986.

#### **Post-Atlantic Coast Strategy:**

As a result of the Atlantic Coast decision, Gloucester County adopted a nondiscriminatory procurement bidding process to solicit bids for the disposal of the County's solid waste. Gloucester County demonstrated that it secured a disposal contract with Wheelabrator Gloucester Company, L.P. in a nondiscriminatory manner. As a result, all acceptable waste types (i.e., waste comprising non-recycled portions of type 10 municipal waste, portions of type 13 bulky waste, type 23 vegetative waste, and the non-animal portion of type 25 animal and food processing waste) are directed to the Gloucester County RRF located in West Deptford Township. The Gloucester County Improvement Authority (GCIA) Landfill in South Harrison was awarded a nondiscriminatory contract to receive bypass waste from the Gloucester County RRF. Ash residue and nonprocessible waste are not subject to flow control. On April 11, 2000, the County Freeholders adopted an amendment to the County Plan for a vertical expansion of the

GCIA Landfill. Also, on December 17, 2003, the County Freeholders adopted an amendment to the County Plan for a horizontal expansion of the GCIA Landfill.

## **Hudson County**

### **Current Status:**

In 2003, Hudson County generated 1,167,745 tons of solid waste. The county recycled 553,385 tons and disposed of 614,360 tons, which calculates to a 47.4% recycling rate for the total waste stream. The county's documented municipal waste stream recycling rate was 16.9%. There are currently 6 Class B recycling facilities and 3 Class C recycling facilities operating within Hudson County.

### **Pre-Atlantic Coast Strategy:**

Prior to the Atlantic Coast decision, the majority of Hudson County's wastes were directed to the New Jersey Meadowlands Commission (NJMC) Baler facility for processing prior to disposal. This facility was included in the Hudson County Plan on August 13, 1981. After processing, type 10 solid waste was disposed of at the NJMC 1-E Landfill, located in North Arlington, Bergen County and Township of Kearny, Hudson County. Solid waste types 13, 23, 25, and 27 were sent to the Empire Landfill, located in Taylor, Pennsylvania.

### **Post-Atlantic Coast Strategy:**

In response to the Atlantic Coast decision, Hudson County adopted a waste strategy of regulatory flow control based upon nondiscriminatory procurement.

All waste types 10 and 25 (up to 450,000 tons annually) are delivered to the Solid Waste Transfer & Recycling, Inc. Transfer Station, located in the City of Newark, Essex County for processing prior to disposal at the Grand Central Landfill, located in Pen Argyl, Pennsylvania.

All waste types 13, 23, and 27 are disposed of at the NJMC Erie Landfill, located in the Township of Lyndhurst.

## **Hunterdon County**

### **Current Status:**

In 2003, Hunterdon County generated 193,230 tons of solid waste. The county recycled 61,685 tons and disposed of 131,545 tons, which equates to a 31.9% recycling rate for the total waste stream. The county's documented municipal waste stream recycling rate was 19.4%. There is currently 1 Class B recycling facility and 2 Class C recycling facilities operating within Hunterdon County.

### **Pre-Atlantic Coast Strategy:**

Prior to the Atlantic Coast decision, the County's solid waste was directed to the Hunterdon County Transfer Station, located in Clinton Township, for processing prior to out-of-district disposal. This facility was included in the County Plan on June 12, 1984. The Hunterdon/Warren Interdistrict Agreement, entered into on July 23, 1986 provided for the disposal of 100 tons per

day of Hunterdon County's processible solid waste to the Warren County Resource Recovery Facility, located in Oxford Township until December 31, 2001.

Post-Atlantic Coast Strategy:

The Hunterdon/Warren Interdistrict Agreement expired in 2001. Hunterdon County did not adopt a disposal strategy to respond to the Atlantic Coast decision. Currently, the county is currently performing as a market participant with the utilization of the Hunterdon County transfer station.

**Mercer County**

Current Status:

In 2003, Mercer County generated approximately 774,152 tons of solid waste. The county recycled about 414,519 tons and disposed 359,633 tons, which calculates to a 53.5% recycling rate for the total waste stream. The county documented municipal waste stream recycling rate was 29.3%. Mercer County currently has 5 Class B recycling facilities and 7 Class C recycling facilities.

Pre-Atlantic Coast Strategy:

Prior to the Atlantic Coast decision, Mercer County's waste was directed to the Mercer County Improvement Authority Transfer Station in Ewing Township which was included in the original County Plan on June 24, 1980, prior to disposal out-of-state at the Waste Management, Inc. GROWS Landfill in Tullytown, Pennsylvania. Mercer County began directing waste types 10, 13, 23, 25, and 27 to GROWS Landfill on December 13, 1983. Mercer County had an interdistrict agreement with Atlantic County, however it is now void. Also, Mercer County included in the County Plan a resource recovery facility on October 14, 1986; however, the construction of the facility never came to fruition, and the facility was subsequently removed from the County Plan on December 29, 1997.

Post-Atlantic Coast Strategy:

In response to the Atlantic Coast decision, Mercer County demonstrated that it secured a disposal contract in a nondiscriminatory manner with GROWS Landfill, an out-of-state facility; therefore, Mercer County has been able to continue to direct its solid waste to the GROWS Landfill. Furthermore, the County adopted a strategy for nondiscriminatory procuring of transfer services, which allows Mercer County to continue to direct all solid waste to the Mercer County Transfer Station located in Ewing Township prior to shipment out-of-state.

**Middlesex County**

Current Status:

In 2003, Middlesex County generated approximately 2,196,324 tons of solid waste. The county recycled about 1,274,808 tons and disposed of 921,516 tons, which equates to a 58% recycling rate for the total waste stream. The county's documented municipal waste stream recycling rate was 34.7%. There are currently 15 Class B recycling facilities, 5 Class C recycling facilities, and 1 Class D recycling facility operating within Middlesex County.

Pre-Atlantic Coast Strategy:

Prior to the Atlantic Coast decision, all of Middlesex County's solid waste was disposed of at the Middlesex County Landfill, located in the Township of East Brunswick. This facility, formerly known as the Edgeboro Landfill, commenced operations in 1954 and was included in the County Plan on September 16, 1982. The Middlesex County Utilities Authority assumed operation of the Edgeboro Landfill from Edgeboro Disposal, Inc. on January 1, 1988.

Post-Atlantic Coast Strategy:

In response to the Atlantic Coast decision, Middlesex County has become a market participant for the solid waste generated within its borders. As a result, Middlesex County offered each of the 25 municipalities within the County voluntary contracts to dispose of their respective solid wastes at the Middlesex County Landfill.

**Monmouth County**

Current Status:

In 2003, Monmouth County generated approximately 1,321,197 tons of solid waste. The county recycled about 689,590 tons and disposed about 631,607 tons, which equates to a 52.2% recycling rate for the total waste stream. The county documented municipal waste stream recycling rate was 37.2%. Monmouth County currently has 13 Class B recycling facilities and 13 Class C recycling facilities.

Pre-Atlantic Coast Strategy:

Prior to the Atlantic Coast decision, all of Monmouth County's waste was disposed of at the Monmouth County Reclamation Center shredder and landfill facility in Tinton Falls Borough. The facility has been included in the County Plan since July 23, 1981.

Post-Atlantic Coast Strategy:

In response to the Atlantic Coast decision, Monmouth County revised its disposal strategy to an intrastate waste flow, which mandates that all type 10 (municipal) solid waste generated from within Monmouth County that is not disposed of out-of-state, is to be disposed of at the Monmouth County Reclamation Center located in Tinton Falls Borough.

**Morris County**

Current Status:

In 2003, Morris County generated 1,017,001 tons of solid waste. The county recycled 508,097 tons and disposed of 508,904 tons, which equates to a 50% recycling rate for the total waste stream. The county's documented municipal waste stream recycling rate was 36.3%. There are currently 4 Class B recycling facilities and 10 Class C recycling facilities operating within Morris County.

Pre-Atlantic Coast Strategy:

Prior to the Atlantic Coast decision, Morris County's waste was directed to the one of the Morris County Municipal Utilities Authority's two transfer stations located in Parsippany-Troy Hills and Mt. Olive Township (which were both included in the County Plan on April 1, 1987) prior to

disposal in Pennsylvania landfills. Morris County directed waste types 10, 13, 23, 25, and 27 from 17 of its 39 municipalities to the Mt. Olive Transfer Station. The remaining 22 municipalities were directed to the Parsippany-Troy Hills Transfer Station.

Post-Atlantic Coast Strategy:

In response to the Atlantic Coast decision, Morris County has reaffirmed the solid waste disposal system that was in effect prior to the decision. The system includes a non-discriminatory procured contract executed June 25, 2002 between MCMUA and Waste Management of New Jersey to operate the two county transfer stations and provide transportation and disposal for the solid waste generated within the county for a period of 5 years.

**Ocean County**

Current Status:

In 2003, Ocean County generated approximately 1,291,710 tons of solid waste. The county recycled about 655,762 tons and disposed about 635,948 tons, which calculates to a 50.8% recycling rate for the total waste stream. The county documented municipal waste stream recycling rate was 27.9%. Ocean County currently has 6 Class B recycling facilities and 9 Class C recycling facilities.

Pre-Atlantic Coast Strategy:

Prior to the Atlantic Coast decision, a majority of Ocean County's waste was disposed of at the Ocean County Landfill Corporation Landfill located in Manchester Township. This landfill has been operational since 1973, with an original permit dated May 10, 1972.

Post-Atlantic Coast Strategy:

In response to the Atlantic Coast decision, Ocean County revised its disposal strategy to an intrastate waste flow, which mandates that all solid waste types generated from within Ocean County that is not disposed of out-of-state, are to be disposed of at the Ocean County Landfill Corporation Landfill in Manchester Township.

**Passaic County**

Current Status:

In 2003, Passaic County generated 1,095,055 tons of solid waste. The county recycled 549,774 tons and disposed of 545,281 tons, which equates to a 50.2% recycling rate for the total waste stream. The county's documented municipal waste stream recycling rate was 30.8%. There are currently 6 Class B recycling facilities and 11 Class C recycling facilities operating within Passaic County.

Pre-Atlantic Coast Strategy:

Prior to the Atlantic Coast decision, Passaic County directed its waste to private transfer stations, located within the county, for processing prior to out-of-district disposal. The County Resource Recovery Facility, included in the County Plan on February 21, 1985, was never constructed.

Post-Atlantic Coast Strategy:

In response to the Atlantic Coast decision, Passaic County employs a free market system for the disposal of solid waste generated within the county.

### **Salem County**

#### **Current Status:**

In 2003, Salem County generated about 134,760 tons of solid waste. The county recycled about 46,025 tons and disposed about 88,735 tons, which equates to a 34.2% recycling rate for the total waste stream. The county documented municipal waste stream recycling rate was 34.5%. Salem County currently has 2 Class B recycling facilities and 1 Class D recycling facility.

#### **Pre-Atlantic Coast Strategy:**

Prior to the Atlantic Coast decision, all of Salem County's waste was disposed of at the Salem County Regional Landfill in Alloway Township. The Landfill has been in the County Plan since April 6, 1983 and was originally permitted by the Department on April 15, 1987.

#### **Post-Atlantic Coast Strategy:**

In response to the Atlantic Coast decision, Salem County adopted a market participant strategy, which provides for voluntary delivery of solid waste to the Salem County Solid Waste Facility.

### **Somerset County**

#### **Current Status:**

In 2003, Somerset County generated 607,296 tons of solid waste. The county recycled 269,884 tons and disposed of 337,412 tons, which equates to a 44.4% recycling rate for the total waste stream. The county's documented municipal waste stream recycling rate was 27.9%. There are currently 5 Class B recycling facilities and 3 Class C recycling facilities operating within Somerset County.

#### **Pre-Atlantic Coast Strategy:**

Prior to the Atlantic Coast decision, Somerset County waste was directed to one of two transfer stations for processing, prior to disposal at out-of-district landfills. The two transfer stations, the Somerset Intermediate Recycling Center (SIRC) Transfer Station and the Bridgewater Resources, Inc. (BRI) Transfer Station were included in the County Plan on August 7, 1984 and November 19, 1986, respectively. The SIRC Transfer Station was located in Franklin Township. The BRI site is located in Bridgewater Township.

The Somerset/Warren Interdistrict Agreement, entered into on July 11, 1990 provided for the disposal of 1400 tons per week of Somerset County's processible solid waste to the Warren County Resource Recovery Facility, located in Oxford Township until December 31, 2001. From January 1, 2002 through November 30, 2008 the waste tonnages increase to 1977 tons per week.

Post-Atlantic Coast Strategy:

In response to the Atlantic Coast decision, Somerset County employs a free market system for solid waste disposal. The Somerset/Warren Interdistrict Agreement, was invalidated by court order.

**Sussex County**

Current Status:

In 2003, Sussex County generated 237,253 tons of solid waste. The county recycled 100,363 tons and disposed of 136,890 tons, which equates to a 42.3% recycling rate for the total waste stream. The county's documented municipal waste stream recycling rate was 21.7%. There are currently 2 Class B recycling facilities and 5 Class C recycling facilities operating within Sussex County.

Pre-Atlantic Coast Strategy:

Prior to the Atlantic Coast decision, all of Sussex County's solid waste was disposed of at the Sussex County Municipal Utilities Authority (SCMUA) Landfill, which is located in the Township of Lafayette. This facility was included in the County Plan on May 14, 1985 and was originally permitted by the Department on November 13, 1987.

Post-Atlantic Coast Strategy:

In response to the Atlantic Coast decision, Sussex County has become a market participant for the solid waste generated within its borders.

**Union County**

Current Status:

In 2003, Union County generated 1,168,736 tons of solid waste. The county recycled 566,953 tons and disposed of 601,783 tons, which equates to a 48.5% recycling rate for the total waste stream. The county's documented municipal waste stream recycling rate was 23.6%. There are currently 3 Class B recycling facilities, 3 Class C recycling facilities, and 1 Class D recycling facility operating within Union County.

Pre-Atlantic Coast Strategy:

Prior to the Atlantic Coast decision, all of Union County's type 10 and 25 waste was disposed of at the Union County Resource Recovery Facility (UCRRF) in the City of Rahway and all ash and bypass waste was disposed of at out-of-state landfills. The UCRRF was included in the County Plan on April 5, 1984 and began operating in February of 1994. All solid waste types 13, 23, and 27 generated from within Union County were directed to one of two transfer stations/material recovery facilities for processing. All residue generated from either of the two transfer station/materials recovery facilities was directed to the Linden Landfill, located in the City of Linden, which was included in the County Plan on November 23, 1982. The Linden Landfill closed in 1999.

Union also entered into an interdistrict agreement with Bergen County to accept up to 192,000 tons per year of Bergen's processible solid waste at the UCRRF. This agreement, however, is now void.

#### Post-Atlantic Coast Strategy:

In response to the Atlantic Coast decision, Union County, through a non-discriminatory bidding process, directs all type 10 and type 25 solid waste to one of three designated facilities, which are the UCRRF and two Waste Management of New Jersey transfer station/material recovery facilities (TS/MRFs), one located at 864 Julia Street, in the City of Elizabeth and the other at 1520 Lower Road, in the City of Linden. The two county designated TS/MRFs deliver the solid waste to out-of-state disposal facilities.

All non-recycled solid waste types 13, 23, and 27 generated from within Union County are directed to the NJMC Erie Landfill, located in the Borough of North Arlington, Bergen County, for disposal. All ash from the UCRRF and bypass waste is disposed of in out-of-state landfills.

#### **Warren County**

##### Current Status:

In 2003, Warren County generated 203,467 tons of solid waste. The county recycled 95,513 tons and disposed of 107,954 tons, which equates to a 46.9% recycling rate for the total waste stream. The county's documented municipal waste stream recycling rate was 19.3%. There is currently 1 Class B recycling facility and 2 Class C recycling facilities operating within Warren County.

##### Pre-Atlantic Coast Strategy:

Prior to the Atlantic Coast decision, the county's processible waste was directed to the Warren County Resource Recovery Facility (WCRRF) in Oxford Township, which was included in the County Plan on November 21, 1984 and received a permit to operate from the Department on October 15, 1987. The WCRRF began operating in July 1988. Ash from the WCRRF and non-processible and bypass wastes were disposed of at the Warren County District Landfill in White Township, which was included in the County Plan on March 6, 1985, and received a permit to operate from the Department on September 30, 1987. Warren County also accepted solid waste from Hunterdon and Somerset Counties at the WCRRF pursuant to interdistrict agreements entered into on July 23, 1986 and July 11, 1990, respectively.

##### Post-Atlantic Coast Strategy:

In response to the Atlantic Coast decision, Warren County has become a market participant for solid waste. Ash from the WCRRF, and non-processible and bypass wastes are delivered to the Warren County Landfill for disposal.

The interdistrict agreement with Hunterdon County expired in 1991 and the interdistrict agreement with Somerset County was invalidated by court order.

**Table A-1 NEW JERSEY SOLID WASTE  
DATABASE TRENDS ANALYSIS**

**1985 through 2003 (millions of tons per  
year)**

Year	GENERATION	RECYCLING				DISPOSAL					
	Total Tons	Total Tons	% of Total Tons	MSW Tons	% of MSW Tons	Total Tons	% of Total Tons	In-State		Out-Of-State	
								Total Tons	% of Total Tons	Total Tons	% of Total Tons
1985 1)	11.4	0.9	8%	0.6	9%	10.5	92%	9.7	85%	0.8	7%
1986 1)	11.5	1.1	10%	0.7	12%	10.4	90%	9.6	83%	0.8	7%
1987 1)	12.4	1.8	15%	1.2	18%	10.6	85%	9.2	74%	1.4	11%
1988 2)	14.0	5.4	39%	1.5	23%	8.6	61%	4.6	33%	4.0	28%
1989 2)	14.3	6.1	43%	2.1	30%	8.2	57%	4.5	31%	3.7	26%
1990 2)	14.8	6.8	46%	2.5	34%	8.0	54%	4.8	32%	3.2	22%
1991 2)	14.3	7.2	50%	2.8	39%	7.1	50%	4.4	31%	2.7	19%
1992 3)	13.2	6.3	48%	3.1	42%	6.9	52%	4.3	33%	2.6	20%
1993 3)	14.8	7.8	53%	3.1	40%	7.0	47%	4.5	30%	2.5	17%
1994 4)	15.9	9.0	56%	3.3	42%	6.9	43%	4.7	30%	2.2	14%
1995 4)	16.8	10.1	60%	3.6	45%	6.6	40%	4.3	26%	2.3	14%
1996 5)	16.9	10.2	61%	3.3	42%	6.6	39%	4.3	25%	2.3	14%
1997 5)	16.9	10.3	61%	3.4	43%	6.6	39%	4.2	25%	2.4	14%
1998 6)	15.7	8.7	56%	3.3	40%	6.9	44%	4.5	29%	2.4	15%
1999 6)	17.2	9.5	55%	3.4	39%	7.7	45%	5.2	30%	2.5	15%
2000 6)	17.7	9.4	53%	3.4	38%	8.3	47%	5.6	32%	2.7	15%
2001 6)	18.8	10.2	54%	3.4	36%	8.6	46%	5.2	28%	3.4	18%
2002 6)	19.3	10.3	53%	3.1	34%	9.0	47%	5.3	28%	3.7	19%
2003 6)	19.8	10.3	52%	3.2	33%	9.5	48%	5.6	28%	3.9	20%

- 1) Final statistics from 1985 through 1987 derived from O&D and tonnage grant figures reported to the Department.
- 2) Final statistics from 1988 through 1991 derived from O&D and tonnage grant reported figures as supplemented by industry survey information for junked autos, asphalt, concrete, heavy iron, tires and batteries.
- 3) Final statistics for 1992 and 1993 derived from O&D and tonnage grant reported figures and supplemented only by add-ons from the NJDOT.
- 4) Beginning with the 1994 recycling reporting period, industry documented tonnage's for other aluminum scrap, other non-ferrous scrap, white goods and sheet iron, junked autos and heavy iron form the basis for the final tonnage's in these material categories. In addition, for 1995, additional recycling tonnage's not reported by the municipalities/towns were added to the total recycling tonnage's.
- 5) Recycling tonnage's for 1996 and '97 do not include material from the 62 and 45 towns respectively which did not report those years.
- 6) Recycling tonnages for 1998 thru 2003 do not include data from the 47, 15, 10, 24, 15 and 10 towns respectively which did not report those years.

<b>Table A-2</b>															
<b>Solid Waste Exports</b>															
<b>Calendar Years 1990 through 2003</b>															
<b>( 000's Tons)</b>															
	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2003
Destination State															% Total Exports
Pennsylvania	2,440	1,931	1,955	1,961	2,107	2,156	2,225	2,257	2,127	2,288	2,361	3,189	3,458	3,708	94%
Virginia	33	371	491	477	334	115	34	2	58	66	7				
W Virginia	54	64	155	61	32	3	1		13						
New York		126					4	12	15	9	24	19	52	59	1%
Ohio	144	74	10	5	8	4	8	46	143	15	103	143	113	42	1%
Delaware					2	4	74	58	11	19	18	13	46	88	2%
Indiana		3													
Connecticut					14	25	5		70		5				
Maryland					4	4	28	52		7	5	8	13	27	<1%
Kentucky	550	25													
S Carolina										103	126		13		
Other		23	9	6		1	1		1	1	2	1	1	1	<1%
Total	3,221	2,617	2,620	2,510	2,501	2,312	2,380	2,427	2,438	2,508	2,651	3,373	3,696	3,925	100%
Note: Data for 1990 thru 2003 was developed from information received from solid waste transfer stations and transporter monthly reports submitted to the NJDEP.															

<b>Table A-3</b>				
<b>2003 MATERIAL SPECIFIC RECYCLING RATES</b>				
<b>IN NEW JERSEY</b>				
<b>Materials</b>	<b>(1) Total % of Solid Waste Generated (Estimated)</b>	<b>(6) Total Tons Generated (Calculated)</b>	<b>Total Tons Recycled (Actual)</b>	<b>% of Waste Stream Recycled (Calculated)</b>
<b>Yard Waste</b>	10.0%	1,980,586.1	1,342,851.6	67.8%
<b>Food Waste</b>	7.4%	1,465,633.7	221,189.2	15.1%
<b>News Paper</b>	4.2%	831,846.2	361,000.0	43.4%
<b>Corrugated</b>	6.0%	1,188,351.7	530,461.0	44.6%
<b>Office Paper</b>	2.3%	455,534.8	150,737.7	33.1%
<b>Other Paper</b>	9.1%	1,802,333.4	137,761.2	7.6%
<b>Plastic Containers</b>	0.9%	178,252.8	53,693.5	30.1%
<b>Other Plastic Packages (2)</b>	1.0%	198,058.6	0.0	0.0%
<b>Other Plastic Scrap</b>	3.8%	752,622.7	11,410.9	1.5%
<b>Glass Containers</b>	2.5%	495,146.5	250,957.2	50.7%
<b>Other Glass</b>	0.4%	79,223.4	12,824.4	16.2%
<b>Aluminum Cans</b>	0.3%	59,417.6	30,759.0	51.8%
<b>Foils &amp; Closures (2)</b>	0.1%	19,805.9	0.0	0.0%
<b>Other Aluminum Scrap</b>	0.2%	39,611.7	38,534.5	97.3%
<b>Vehicular Batteries</b>	0.1%	10,794.2	7,985.2	74.0%
<b>Other Non-ferrous Scrap</b>	0.9%	178,252.8	38,534.5	21.6%
<b>Tin &amp; Bi-Metal Cans</b>	0.5%	99,029.3	38,870.3	39.3%
<b>White Goods &amp; Sheet Iron</b>	2.4%	475,340.7	337,067.7	70.9%
<b>Junked Autos</b>	2.0%	404,039.6	361,140.7	89.4%
<b>Heavy Iron</b>	4.5%	891,263.8	674,549.2	75.7%
<b>Wood Waste</b>	3.3%	653,593.4	92,813.4	14.2%
<b>Asphalt, Concrete &amp; Masonry</b>	18.8%	3,723,501.9	4,426,054.1	118.9%
<b>Tires (3)</b>	0.2%	48,326.3	36,792.6	76.1%
<b>Other Municipal &amp; Vegetative (4)</b>	8.3%	1,643,886.5	46,326.5	2.8%
<b>Other Bulky &amp; Const/Demo (5)</b>	10.8%	2,139,033.0	1,063,468.7	49.7%
<b>Total (Actual) (6)</b>	<b>100.0%</b>	<b>19,805,861.2</b>	<b>10,265,782.9</b>	<b>51.8%</b>

**NOTES:**

1. The "Total % of Solid Waste Generated (Estimated)" was updated for this report utilizing 1998 and 1999 percentages from the US Environmental Protection Agency's (EPA) Franklin Associates Report Characterization of Municipal Solid Waste in the United States Update and data from the Institute of Scrap Recycling Industries (ISR) and the Auto and Metal Recyclers Association (AMRA). In some instances these percentages were modified to better reflect New Jersey's waste stream composition.
2. The EPA includes "Other Plastic Packages" and "Foil and Closures" in its report. However, these categories are not reported (NR) on the New Jersey Recycling Tonnage Grant Report. Therefore, the DEP used the 1998 EPA's percentages for these two categories.
3. For this report, only the tonnage reported by municipalities and Class B recycling centers are used. The chart does not include tires that are either in temporary storage at homes and elsewhere, or in larger tire piles in the State. "Total Tons Recycled" also does not reflect those tires transported directly out-of-state to market, in large part.
4. "Other Municipal and Vegetative" contains anti freeze, motor oil, household batteries and textiles.
5. "Other Bulky&Const/Demo" contains stumps, oil contaminated soil, process residue and material not listed.
6. The "Total Tons Generated" column is calculated only to the nearest tenth of a percent. Therefore, adding all numbers in this column will not equal the "Total (Actual)", which equals the sum of tons disposed plus tons reported as recycled. Additionally, "tons generated" for each material is derived from the multiplication of the estimated percentage of each material shown in column two by the bottom number in that column, which represents the sum of the total tons disposed (an actual, not estimated number) plus total tons recycled (also an actual, not estimated number).

**Table A-4 2003 GENERATION, DISPOSAL AND RECYCLING RATES IN NEW JERSEY (Tons)**

COUNTY	POPULATION	GENERATION	DISPOSAL			RECYCLING			
		Disposal and Recycling	MSW	BULKY	TOTAL	MSW	MSW	Total	Total %
							%	Recycled	Recycled
								w/Add-ons	
Atlantic	252,552	825,656	255,501	96,369	351,870	86,093	25.2%	473,786	57.4%
Bergen	884,118	1,970,328	674,728	283,804	958,532	489,718	42.1%	1,011,796	51.4%
Burlington	423,394	1,013,407	343,555	127,124	470,679	234,437	40.6%	542,728	53.6%
Camden	508,932	1,068,011	362,301	163,192	525,493	160,819	30.7%	542,518	50.8%
Cape May	102,326	507,532	93,463	120,800	214,263	64,325	40.8%	293,269	57.8%
Cumberland	146,438	512,158	125,329	53,913	179,242	101,201	44.7%	332,916	65.0%
Essex	793,633	1,919,401	639,537	294,050	933,587	280,140	30.5%	985,814	51.4%
Gloucester	254,673	580,951	203,347	81,008	284,355	150,440	42.5%	296,596	51.1%
Hudson	608,975	1,167,745	435,393	178,967	614,360	88,332	16.9%	553,385	47.4%
Hunterdon	121,989	193,230	87,099	44,446	131,545	20,939	19.4%	61,685	31.9%
Mercer	350,761	774,152	260,385	99,248	359,633	108,033	29.3%	414,519	53.5%
Middlesex	750,162	2,196,324	593,459	328,057	921,516	315,847	34.7%	1,274,808	58.0%
Monmouth	615,301	1,321,197	439,586	192,021	631,607	259,876	37.2%	689,590	52.2%
Morris	470,212	1,017,001	355,758	153,146	508,904	202,916	36.3%	508,097	50.0%
Ocean	510,916	1,291,710	462,800	173,148	635,948	179,013	27.9%	655,762	50.8%
Passaic	489,049	1,095,055	387,182	158,099	545,281	171,948	30.8%	549,774	50.2%

Salem	64,285	134,760	36,670	52,065	88,735	19,287	34.5%	46,025	34.2%
Somerset	297,490	607,296	220,702	116,710	337,412	85,613	27.9%	269,884	44.4%
Sussex	144,166	237,253	91,337	45,553	136,890	25,294	21.7%	100,363	42.3%
Union	522,541	1,168,736	408,380	193,403	601,783	126,454	23.6%	566,953	48.5%
Warren	102,437	203,467	75,766	32,188	107,954	18,116	19.3%	95,513	46.9%
<b>TOTAL</b>	<b>8,414,350</b>	<b>19,805,372</b>	<b>6,552,275</b>	<b>2,987,314</b>	<b>9,539,589</b>	<b>3,188,842</b>	<b>32.7%</b>	<b>10,265,783</b>	<b>51.8%</b>

**NOTES:** MSW Recycled tonnages do not include total recycling activities from 13 municipalities which did not report. However, "MSW" and "Total Recycled" tonnage columns includes approximately 27,936 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 10/6/2005***  
***By DEP/DSHW***