

Atlantic County Recycling Sweep Results

The Atlantic County Recycling Sweep was conducted from November 28, 2005 through December 9, 2005. The sweep, which the New Jersey Department of Environmental Protection (DEP) led in partnership with the Atlantic County Utilities Authority, the Atlantic County and Atlantic City Health Departments and numerous municipal recycling coordinators, assessed compliance with the state's mandatory recycling requirements.

Recycling is not optional in New Jersey; it is the law. The DEP's statistics indicate that New Jersey recycled 32.7 percent of its municipal solid waste stream and 51.8 percent of its total solid waste stream in 2003. While these recycling rates are noteworthy they are significantly lower than the 1995 peak municipal solid waste recycling rate of 45 percent and the 1997 peak total solid waste recycling rate of 61 percent. It should be noted that while overall statewide recycling rates are down from a few years ago, the number of facilities engaged in recycling activities is at an all time high (currently exceeding 275 facilities), compared to just 79 facilities for solid waste.

The environment directly benefits from recycling. In 2001, New Jersey's recycling efforts saved a total of 128 trillion BTU's of energy, equal to nearly 17.2 percent 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. 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 dioxide 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. If the municipal solid waste recycling rate increased from 34 percent to 50 percent, a total of 7.7 million metric tons of carbon dioxide equivalent in avoided greenhouse gas emissions would result.

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. Almost 27,000 people in New Jersey are employed in recycling and reuse establishments and the total receipts from these establishments are valued at over \$5.9 billion annually. The DEP estimates that nearly 9,000 additional jobs would be created in New Jersey should the 50 percent municipal solid waste recycling goal be met.

Although recycling rates reflect the state average, the DEP focused on Atlantic County due to its geographic location in southern New Jersey, its unique casino industry, and because the County operates its own recycling collection program. Some businesses throughout the State have been improperly managing their recyclable materials. These businesses have been disposing of their recyclable material (e.g., glass, paper, metal and plastics) along with their regular trash instead of separating them for recycling.

Entities such as colleges; schools and educational service providers; casinos, hotels and motels; multi-family housing units, mortgage banks; fitness centers; motion picture theaters; sports and recreation clubs; bowling centers; photocopying and duplicating service providers; nonresidential building operators; insurance brokers; taverns and restaurants; department stores; healthcare facilities; and convenience stores were targeted for inspection.

The compliance portion of the sweep began in November and focused on providing outreach via an enforcement advisory. In addition, the DEP sent postcards announcing the sweep to each targeted facility planned for inspection.

The initiative included inspections at 1,031 facilities. The DEP inspected 790 facilities and the County/Municipalities inspected 241 facilities. Certificates of Inspection were issued to those facilities that were found in compliance. A total of 791 certificates were issued. Recycling violations were found at 240 facilities. Facilities issued Notices of Violation are subject to follow-up inspections. Those remaining in violation will be subject to enforcement action by the local recycling coordinator using applicable recycling ordinances.

Compliance Rates by Municipality

Compliance rate is determined by dividing the total number of sites in compliance by the total number of sites inspected. The overall recycling compliance rate for the county was 77 percent. Although compliance rates of the individual municipalities varied from 50 percent to 100 percent, 19 of the 29 municipalities (66 percent) had compliance rates above the county's overall compliance rate (see Figure 1).

Compliance Rates by Sector

The compliance rates were evaluated for each separate sector or SIC code to determine where, if any, improvements in recycling efforts could be made. The compliance rates for the top ten sectors based on number of sites inspected are shown in Table 1. The perception prior to the sweep was that drinking establishments did not recycle. However, of the 37 sites that were inspected, 97 percent were in compliance. Another perception prior to the sweep was that the casinos did not recycle. Casinos fall into the same SIC code (7011) as hotels and motels.

Atlantic County Recycling Sweep Compliance Rates by Municipality

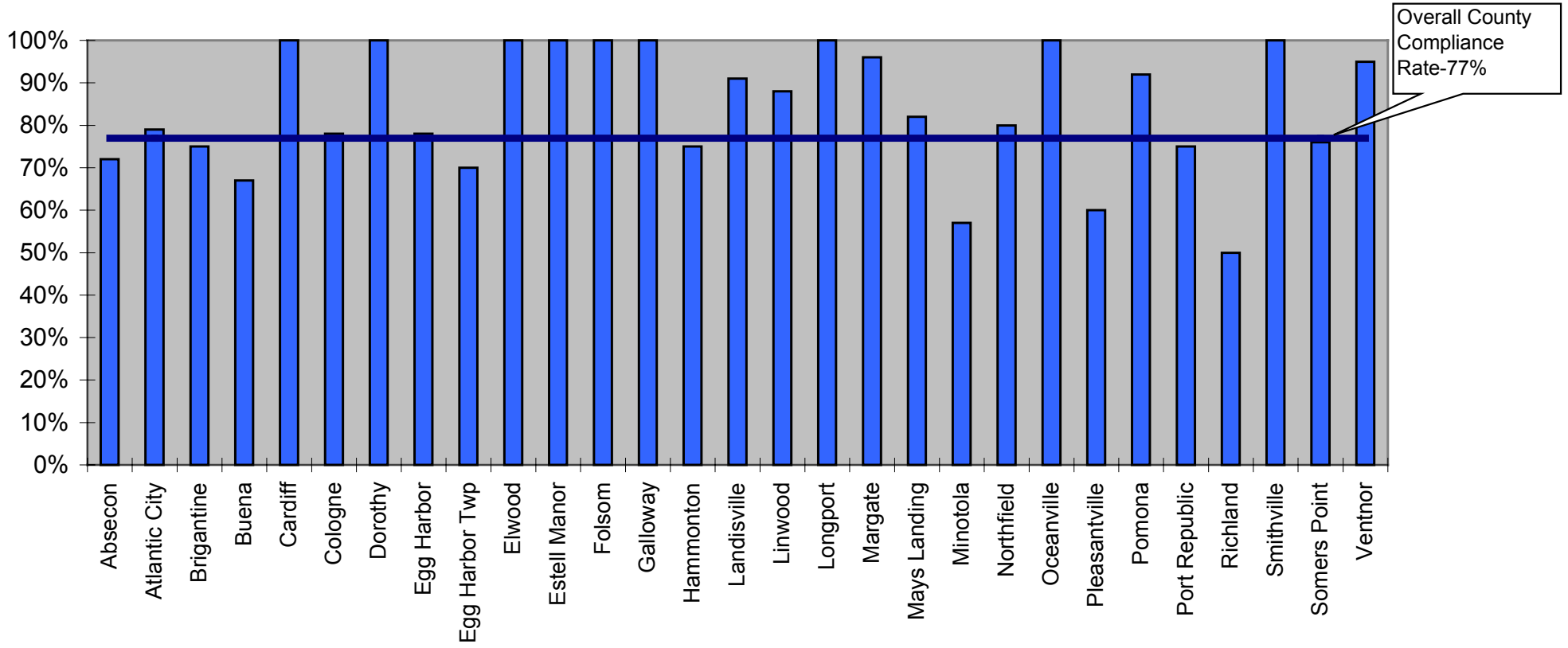


Figure 1 – Data Collected From November 28, 2005 to December 9, 2005

Table 1 - Compliance Rates by Sector for Top 10 Sectors Inspected

SIC Code	Sector Description	In Compliance	Non-Compliance	Total Inspected	Compliance Rate
5813	DRINKING PLACES	36	1	37	97%
5999	MISCELLANEOUS RETAIL STORES, NEC	48	3	51	94%
6531	REAL ESTATE AGENTS AND MANAGERS	97	19	116	84%
6411	INSURANCE AGENTS, BROKERS, AND SERVICE	40	9	49	82%
7389	BUSINESS SERVICES, NEC	47	10	57	82%
8211	ELEMENTARY AND SECONDARY SCHOOLS	52	14	66	79%
5912	DRUG STORES AND PROPRIETARY STORES	27	10	37	73%
5411	GROCERY STORES	102	40	142	72%
7011	HOTELS AND MOTELS	68	46	114	60%
6513	APARTMENT BUILDING OPERATORS	35	25	60	58%

Upon the initial data evaluation, with a compliance rate of only 60 percent, it appeared that casinos do not recycle. Upon separating out the casinos from the hotels and motels, they had a compliance rate of 92 percent and the compliance rate for the hotels and motels only was 55 percent. The high compliance rate from the casinos actually increased the overall compliance rate for that SIC code (7011) to 60 percent.

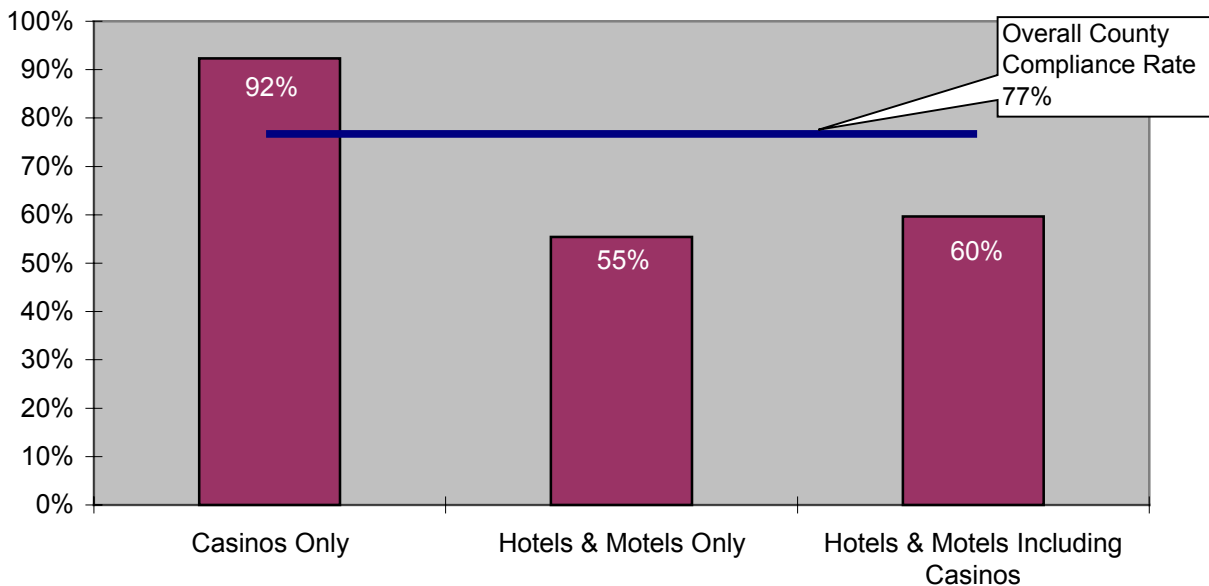


Figure 2 – Comparison of Compliance Rates of Casinos with Hotels & Motels

In addition to evaluating the top ten sectors based on the number of sites inspected, sectors with the overall lowest compliance rates were also looked at. The low compliance rates may not be indicative of the entire sector due to the small number of sites within that sector being inspected. The compliance rates may or may not have been higher if additional sites within that sector were inspected. It can be said that these

sectors should be provided additional compliance assistance and education on recycling to improve their current recycling efforts.

Table 2 - Compliance Rate by Sector of Sectors with Low Compliance Rates

SIC Code	Sector Description	In Compliance	Non-Compliance	Total Inspected	Compliance Rate
7991	PHYSICAL FITNESS FACILITIES	9	5	14	64%
7832	MOTION PICTURE THEATERS, EXCEPT DRIVE-IN	3	2	5	60%
4581	AIRPORTS, FLYING FIELDS, AND SERVICES	3	2	5	60%
8742	MANAGEMENT CONSULTING SERVICES	14	12	26	54%
9531	HOUSING PROGRAMS	1	3	4	25%

County Recycling

As a result of the recycling enforcement inspections and the proactive efforts of the Atlantic County Utilities Authority, business recycling increased more than 47 percent. Although it is a start, there are additional opportunities to increase the amount of solid waste recycled. Recycling sweeps have been conducted in Hudson and Atlantic Counties with comparable results as shown in Table 3. There were similar overall county and municipality compliance rates between Hudson and Atlantic. The percentages of facilities and sector types that were not in compliance and were not recycling any materials were also similar between the counties.

Table 3 – Comparison of Hudson County and Atlantic County

	Hudson County	Atlantic County
Overall County Compliance Rate	78 percent	77 percent
Municipality Compliance Rate	Varied from 58 percent to 90 percent	Varied from 50 percent to 100 percent
Facilities That Received A Notice of Violation That Are Not Recycling Any Materials	38 percent of facilities in non-compliance are not recycling Sector percent of overall total: <ul style="list-style-type: none"> ▪ Elementary & Secondary Schools 28% ▪ Hotels & Motels 12% ▪ Housing Programs 10% ▪ Insurance Agents & Brokers 9% 	48 percent of facilities in non-compliance are not recycling Sector percent of overall total: <ul style="list-style-type: none"> ▪ Hotels & Motels 28% ▪ Apartment Building Operators 19% ▪ Real Estate Agents & Managers 10% ▪ Insurance Agents & Brokers 7%

Recycling rates are different than compliance rates. Recycling rates are based on the tonnage of solid waste recycled divided by the total tonnage of solid waste generated. 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 percent recycling rate for the total waste stream. The county's documented municipal waste stream recycling rate was 25.2 percent.

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 percent recycling

rate for the total waste stream. The county's documented municipal waste stream recycling rate was 16.9 percent.

Future Efforts¹

Notwithstanding the environmental and economic benefits of recycling, New Jersey has not met its total solid waste recycling goal of 60 percent since 1997 and has never met its 50 percent municipal solid waste recycling goal. Based upon 2003 waste generation data, approximately 1,570,000 additional tons of waste would need to be recycled in order to reach the 60 percent total solid waste recycling goal. Furthermore, based upon the same waste generation data, slightly less than 1,700,000 additional tons of municipal solid waste would need to be recycled in order to reach the 50 percent municipal solid waste recycling goal. The latter goal, in particular, represents a major challenge for our state's many recycling programs; however, it is one that can be met.

The Solid Waste Enforcement Program is also concerned with the decline in the State's recycling rate and the appearance of increasing percentages of recyclable materials making their way into the solid waste stream for disposal rather than being recycled. While this is a difficult issue to ascertain, the DEP is increasing its vigilance at transfer and disposal facilities by ensuring that processes are and remain in place to detect recyclables in incoming loads and undertaking additional investigations of hauling practices involving recyclable bottles, cans and paper. In addition, the DEP has implemented a pilot use of a "Recycling Checklist" during compliance and enforcement inspections performed by programs outside of the Solid Waste Enforcement program, including County Environmental Health Act (CEHA) agencies. This checklist reviews a commercial entity's compliance with the Statewide Mandatory Source Separation and Recycling Act. Entities found in non-compliance will be referred to appropriate county and municipal recycling coordinators for follow-up and possible enforcement.

The Solid Waste Enforcement Program currently inspects transfer and recycling facilities on a monthly basis. In the upcoming year the enforcement program will identify transfer and recycling facilities with poor compliance histories and target these facilities for more frequent inspections. Greater attention to non-compliant facilities could result in either an improvement in the overall compliance rate for a particular facility or an increase in the number of enforcement actions and associated penalties that the facility receives as a result of greater oversight.

¹ Information obtained from the State Wide Solid Waste Management Plan 2006 available at <http://www.nj.gov/dep/dshw/recycle/swmp/index.html>