

THE NEW JERSEY STATEWIDE MANDATORY SOURCE SEPARATION AND RECYCLING ACT: THE NATION'S FIRST COMPREHENSIVE STATEWIDE MANDATORY RECYCLING PROGRAM

I. Introduction

New Jersey's solid waste disposal crisis finally has reached the breaking point. Many of the state's heavily populated counties face imminent shutdowns of their available landfills.¹ Other counties have depleted their landfill space and are now forced to endure the exorbitant cost of shipping their solid waste out of the state.² In short, New Jersey is running out of places to put its garbage.

The reality of the state's garbage crisis is something that many New Jersey residents are unwilling to face. The severity of the situation will not be recognized by many until the day their garbage accumulates at the curb.

Given the pressing nature of the crisis, New Jersey officials cannot delay in taking corrective action. Careful planning and immediate action must be the order of the day. However, even the most thoughtful planning and swift action may not resolve the problem. The officials must begin to address the social, political, and economic obstacles between the current crisis and an effective, long-term solution.

Currently, New Jersey relies heavily on landfilling as its primary method of solid waste disposal, even though landfills have long been recognized as an environmentally unsafe and strategically short-sighted method of waste disposal. Government officials are not entirely to blame for their disposal decisions, however, since the alternatives to landfilling, especially waste-to-

¹ See Sherman, *Six counties scramble to meet deadline for handling garbage flow*, The Star-Ledger (Newark, N.J.), Nov. 15, 1987, at 1, col. 1; Curcio & Sherman, *5 counties racing deadlines as garbage crisis intensifies*, The Star-Ledger (Newark, N.J.), July 26, 1987, at 1, col. 2; Raskin, *Mandatory Recycling: Habit-Forming*, N.Y. Times, Dec. 20, 1987, § 11, at 1, col. 1.

² See Riley, Byrd & Sherman, *Essex garbage rate will rocket by 305%*, The Star-Ledger (Newark, N.J.), July 31, 1987, at 1, col. 1; Raskin, *supra* note 1.

energy resource recovery incinerators and recycling, also present formidable environmental, social, and political risks.

Recycling, at least in New Jersey, appears to be the most favored alternative solution.³ Recycling is not a novel concept in New Jersey. Through early 1987, over 400 of the state's 567 municipalities engaged in voluntary recycling, while more than 150 municipalities had a mandatory recycling program in place. In addition, four of the state's twenty-one counties have already adopted mandatory programs. Unfortunately, the overall effect of these recycling activities has not sufficiently curbed the flow of waste to landfills. As a result, on April 20, 1987, the New Jersey Legislature adopted the statewide Mandatory Source Separation and Recycling Act (Mandatory Act or Act),⁴ the most comprehensive statewide mandatory recycling program in the nation.

Recycling programs are not new phenomena in this country. Many states have adopted a variety of recycling programs, four of which will be examined later in this note. These recycling programs have operated with varied degrees of success, prompting many authors to compare and contrast their effectiveness using a number of criteria.⁵ The factors employed combine to describe a desirable recycling program, and form an excellent basis for analyzing New Jersey's mandatory recycling law. This analytical framework includes the following considerations:

Social and Political Considerations

For statutory recycling programs to work on a wide scale, there must be a shift in the attitudes of consumers and manufac-

³ The benefits of recycling include reduced landfilling costs, additional raw materials for manufacturing, and energy conservation. See generally Note, *Conserving Natural Resources: Toward a Comprehensive State Solid Waste Recycling Program Under the Federal Resource Conservation and Recovery Act*, 10 N.Y.U. REV. L. & SOC. CHANGE 469 (1980-81) [hereinafter *Conserving Natural Resources*].

⁴ 1987 N.J. Sess. Law Serv. 102 (West) (codified at various sections of N.J. STAT. ANN. §§ 13:1E-1 to -198; 40A:4; 40A:11; 40:55-D; 54:10A; 13:1D).

⁵ See *Conserving Natural Resources*, *supra* note 3, at 497; Halgren, *Recycling and Resource Recovery: State and Municipal Legal Impediments*, 7 COLUM. J. ENVT. L. 1 (1980) [hereinafter *Recycling Impediments*]; Zalob, *Current Legislation and Practice of Compulsory Recycling: An International Perspective*, 19 NAT. RESOURCES J. 611 (1979) [hereinafter *Compulsory Recycling*]; Comment, *Municipal Solid Waste Regulation: An Ineffective Solution to a National Problem*, 10 FORDHAM URB. L.J. 215, 218 (1981-82); Note, *Problems Associated With the Management of Solid Wastes: Is There a Solution in the Offing?*, 83 W. VA. L. REV. 131 (1980) [hereinafter *Management of Solid Wastes*].

turers, away from "planned obsolescence" and the "throw-away society," and toward resource conservation and waste generation reduction.⁶ Additionally, statutory recycling programs must move away from blind deference to "home rule," which vests the primary decision-making responsibility for solid waste disposal upon local government, to a more regional, coordinated, and co-operative solution to the statewide solid waste disposal problem.⁷

Economic Considerations

Recycling will be forever linked to economic considerations since, in part, it involves the sale of recycled products to manufacturers to be used as raw materials in the production of new products. Therefore, manufacturers must be convinced of the cost efficiency of recycled products as raw materials in comparison to virgin materials. Consumers must be convinced that new products containing recycled raw materials are as desirable as new products produced from virgin raw materials. The marketplace then becomes the final battlefield in the contest between virgin and recycled products where ultimately the recycling concept's fate will be decided.

Many commentators have argued that recycled products currently compete at a disadvantage with virgin materials primarily because the laws have been designed to encourage the use of virgin materials instead of recycled materials.⁸ Statutory recycling programs must address this bias and work to promote the use of recycled raw materials and of the goods produced from these materials. This can be accomplished in the following manner:

a. Statutory recycling programs can stimulate public and private demand⁹ for recycled goods, by developing markets for their exchange.¹⁰ Toward this end mandatory recycling statutes

⁶ See *Compulsory Recycling*, *supra* note 5, at 626.

⁷ See Florio, *The Solid Waste Crisis*, 9 SETON HALL LEGIS. J. 399 (1986); Lesniak, *Resource Recovery and Landfill Site Selection: Looking for Leadership from State Government*, 9 SETON HALL LEGIS. J. 409, 411 (1986).

⁸ See *Recycling Impediments*, *supra* note 5, at 4; *Conserving Natural Resources*, *supra* note 3, at 481-82.

⁹ See *Conserving Natural Resources*, *supra* note 3, at 490.

¹⁰ One author suggests carefully tailoring a recycling program to achieve the goal of the economic theory of Pareto optimality, where there is an allocation of resources "such that no individual could be made better off through exchange without making someone else worse off." *Id.* at 479. For recycling laws to achieve the

should include provisions which mandate the procurement of competitively-priced recycled products by the state and its political subdivisions. The legislation should amend public bidding laws to encourage the awarding of public contracts to vendors who sell recycled goods, especially recycled goods containing significant quantities of "post-consumer waste material."¹¹

b. Statutory recycling programs must address the "social costs" associated with the use of products made from virgin materials; namely, those "costs" which are not quantified and included in the purchase price when a consumer purchases a product at the market, but which manifest themselves in the form of garbage disposal fees,¹² increased landfilling, and environmental blight.¹³ Through the enactment of a "product disposal tax,"¹⁴ levied on the manufacturer or the consumer, and intended to reflect these added "social costs," mandatory recycling statutes can discourage the widespread use of products made from virgin materials.

c. Statutory recycling laws must alleviate the inequities in the tax laws by balancing those tax provisions which provide for reduced taxes or award subsidies to manufacturers who use virgin products, and which offer no similar advantages to manufacturers who use recycled materials.¹⁵ Mandatory recycling

goal of Pareto optimality, and thus alleviate the most significant problems in achieving viable recycling programs, the author argues that laws must balance the supply and demand for recycled goods and remove the market bias against recycled products, especially by developing government policies oriented to demand (by balancing the inequities in price between virgin and recycled goods and institutionalizing public demand and stimulating private demand), with similar policies oriented to supply (by removing the cost imbalance favoring the use of virgin products, especially government subsidies favoring the use of virgin resources and statutory price discrimination against recycled products, and by government financing of public and private recycling activities). *Id.* at 478-501.

¹¹ The most abundant but unfortunately more expensive form of waste material for recycling purposes, and thus the least recycled form of waste. See *Recycling Impediments*, *supra* note 5, at 9-10.

¹² The current method of setting disposal fees may itself be inequitable. Some authors argue that the practice of establishing the same rate for all users of waste disposal services, whether they produce more or less waste than their disposal fee pays for, should be redesigned. *Conserving Natural Resources*, *supra* note 3, at 483.

¹³ *Id.* at 471-72.

¹⁴ See *Recycling Impediments*, *supra* note 5, at 10-12.

¹⁵ Correcting the inequity may not be as simple as awarding similar exemptions or subsidies to recycling industries. Some authors, however, suggest that equivalent favoritism would still not alleviate the underlying problem of artificially

statutes must be tailored to encourage the competitiveness of recycling industries by offering tax incentives intended to alleviate the start-up costs associated with a recycling business.

This article will analyze the New Jersey Statewide Mandatory Source Separation and Recycling Act under the above framework, and offer some conclusions about its role in the long-term solution to the state's solid waste disposal crisis. Section II compares federal and state laws similar to New Jersey's; Section III outlines the effect of prior laws in New Jersey on the solid waste crisis; Section IV discusses the New Jersey Mandatory Act in detail; and Section V includes the author's analysis and conclusions.

II. Prior Law

A. Federal Law

1. Statutes

The federal government's role in promoting recycling began with the passage of the National Environmental Policy Act of 1969 (NEPA).¹⁶ The NEPA burdened the federal government with the responsibility of "enhanc[ing] the quality of renewable resources and approach[ing] the maximum attainable recycling of depletable resources."¹⁷ While the NEPA did not mandate nationwide recycling programs, it did reflect the same policy considerations found in the federal Solid Waste Disposal Act (SWDA).¹⁸ In 1976, the provisions of SWDA were superseded and amended by the Resource Conservation and Recovery Act (RCRA).¹⁹

The RCRA represents the federal government's most significant involvement in the hazardous and nonhazardous waste area. The RCRA essentially prohibits open dumping and requires that

low costs for procuring virgin materials, which ultimately must be eliminated. See *Conserving Natural Resources*, *supra* note 3, at 498-99.

¹⁶ 42 U.S.C.A. §§ 4321-4361 (West 1977 & Supp. 1988).

¹⁷ *Id.* § 4331(b)(6).

¹⁸ *Id.* §§ 3251-3259.

¹⁹ *Id.* §§ 6901-6991i (West 1983 & Supp. 1988). For a brief comparison of the SWDA and the RCRA, see *Management of Solid Wastes*, *supra* note 5, at 138-39. For a general discussion of the RCRA, see generally 1A F. GRAD, *TREATISE ON ENVIRONMENTAL LAW* 4-55 (1987); Note, *Waste Disposal: The Commerce Clause and the Resource Conservation and Recovery Act of 1976*, 1983 B.Y.U. L. REV. 147, 153-57 [hereinafter *Waste Disposal*].

presently open dumps be converted into environmentally safe facilities.²⁰ In addition, the RCRA encourages the federal government to take a leadership role in solving the nation's solid waste disposal crisis by providing for the promulgation of federal guidelines for: "collection, transport, separation, recovery and disposal" of solid waste;²¹ the promotion of national research and development programs which will encourage and improve solid waste recycling technology;²² and the encouragement of cooperation among federal, state and local governments as well as private enterprise engaged in resource recovery.²³

The RCRA also requires the Environmental Protection Agency (EPA) Administrator to prepare solid waste management guidelines.²⁴ Furthermore, approval by the EPA of a state's solid waste disposal plan is a precondition for federal financial assistance.²⁵ The RCRA encourages the use of regional and intrastate plans for solid waste disposal.²⁶ Additionally, the law sets forth requirements for the federal government's procurement of recycled products,²⁷ and encourages the government to use post consumer waste materials.²⁸ Finally, the RCRA requires the Secretary of Commerce in Resource Recovery to develop markets for recovered waste materials,²⁹ and orders the Secretary to act without discriminating between virgin and recycled products when formulating policies with regard to the recycled goods' market.³⁰ Despite these positive steps, the RCRA does not require nationwide recycling, nor does it challenge "home rule."³¹

2. Common Law

Federal case law similarly has not mandated wide scale recycling. The United States Supreme Court's decision in *City of*

²⁰ 42 U.S.C.A. § 6902(a)(3) (West 1983 & Supp. 1988).

²¹ *Id.* § 6902(a)(8).

²² *Id.* § 6902(a)(9).

²³ *Id.* § 6902(a)(11).

²⁴ *Id.* § 6907.

²⁵ *Id.* § 6947(b)(1). Approval by the EPA Administrator will be forthcoming if the state plan meets the criteria listed in subsection (a) of this section. *Id.*

²⁶ *Id.* 42 U.S.C.A. § 6946 (West 1983 & Supp. 1988).

²⁷ *Id.* § 6962(c)(1).

²⁸ *Id.* § 6962(e)(1).

²⁹ *Id.* §§ 6951(2), 6953.

³⁰ *Id.* § 6955.

³¹ See generally *id.* §§ 6901-6991.

Philadelphia v. New Jersey,³² however, significantly affected New Jersey's alternatives for statewide solid waste disposal, and may have accelerated the need for mandatory recycling. The Court in *City of Philadelphia v. New Jersey* reversed the New Jersey Supreme Court,³³ and held unconstitutional New Jersey's prohibition against importation of solid waste for disposal within New Jersey's borders.³⁴ The Court ruled that interstate movement of wastes is "commerce" under the commerce clause of the federal constitution, and thus held the New Jersey plan violated the clause.³⁵ According to the Court, New Jersey's interests in protecting the health, safety and welfare of its citizens were insufficient to support the interstate restrictions since the law "imposes on out-of-state commercial interests the full burden of conserving the State's remaining landfill space."³⁶ The Court noted that the law was an impermissible barrier to interstate trade because New Jersey faced no greater harm to public health from foreign waste than from its own waste.³⁷ Justice Stewart added that the decision would ultimately help crisis states such as New Jersey by promoting interstate or regional disposal of waste materials.³⁸

The Supreme Court's decision certainly may have a beneficial effect on the nation's solid waste disposal crisis by promoting the regional disposal strategy encouraged under the RCRA.³⁹ However, the benefits are not clear to some commentators. The decision virtually eliminates a state's option to exclude foreign wastes from its disposal plans. Some authors suggest that exclusion may be a necessary, and possibly a constitutionally permissible, solution to a state's solid waste disposal problems.⁴⁰

³² 437 U.S. 617 (1978).

³³ *Hackensack Meadowlands Dev. Comm'n v. Municipal Sanitary Landfill Auth.*, 68 N.J. 451, 348 A.2d 505 (1975), *rev'g* 127 N.J. Super. 160, 316 A.2d 711 (Ch. Div. 1974).

³⁴ 437 U.S. at 629.

³⁵ *Id.* at 622-26.

³⁶ *Id.* at 628.

³⁷ *Id.* at 629.

³⁸ *Id.*

³⁹ 42 U.S.C.A. §§ 6941-6949 (West 1983 & Supp. 1988).

⁴⁰ See generally Note, *Solving New Jersey's Solid Waste Problem Constitutionally or Filling the Great Silences with Garbage*, 32 RUTGERS L. REV. 741 (1979); Note, *The Commerce Clause and Interstate Waste Disposal: New Jersey's Options After the Philadelphia Decision*, 11 RUT.-CAM. L.J. 31 (1979).

B. State Law

1. Laws of Various States

At the state level, there have been many approaches toward solid waste disposal and recycling.⁴¹ A few states have implemented vigorous statewide recycling programs, but none are as comprehensive as New Jersey's. Other states have adopted "bottle bill" legislation, which mandates the collection of recyclable beverage containers and offers a cash refund on their return.⁴² In particular Oregon, California, Vermont, and Rhode Island have implemented organized recycling programs as part of their statewide solid waste management effort.

In addition to its bottle bill,⁴³ Oregon promotes statewide waste recycling as part of its solid waste plan.⁴⁴ The plan permits the Oregon Environmental Quality Commission (EQC) to require mandatory participation by waste generators in source separation⁴⁵ within a state "wasteshed."⁴⁶ The EQC possesses this enforcement power if after a reasonable amount of time participation in the "opportunity to recycle" has been unacceptable

⁴¹ Authors have identified general trends among state recycling laws, which include:

- 1) setting objectives and priorities for specific recycling and reclamation solutions;
- 2) coordinating the efforts of the public and private sectors in achieving recycling and reclamation programs;
- 3) setting guidelines for government units to follow at all levels;
- 4) underwriting a technological development program in recycling and reclamation and;
- 5) setting up an information exchange system to provide information to the public and to disseminate technological information to both the public and private sector.

Compulsory Recycling, *supra* note 5, at 627-28.

⁴² Bottle bills, however, are not among the subjects this article will discuss. These beverage container laws raise a myriad of socio-political and economic issues encompassed by comprehensive statewide mandatory recycling programs. For a discussion of bottle bills, see *Compulsory Recycling*, *supra* note 5; Parker, *Oregon's Pioneering Recycling Act*, 15 ENVTL. L. 387 (1985). New Jersey has no such bottle bill.

⁴³ OR. REV. STAT. § 459.810-.890 (1985).

⁴⁴ *Id.* § 459.015.

⁴⁵ Source Separation requires the final user of recyclable material to separate it from the solid waste materials. *Id.* §§ 459.005(20), .188(1).

⁴⁶ "Wasteshed" is defined as "an area of the state having a common solid waste disposal system or designated by the [Environmental Quality] (C)ommission as an appropriate area of the state within which to develop a common recycling program." *Id.* §§ 459.005 (23), .188(1).

under the statute.⁴⁷ In addition, mandatory participation must be economically feasible and the sole practical alternative to achieving the statewide waste disposal plan's purposes.⁴⁸ The Oregon Legislature declared that "planning, development, and operation of recycling programs is a matter of statewide concern,"⁴⁹ and that "[t]he opportunity to recycle should be provided to every person in Oregon."⁵⁰ The statewide plan established recycling as the third of five priority methods to manage solid waste,⁵¹ and placed primary responsibility for franchising of collection service and solid waste program management with county and local governments.⁵² The plan also promotes the use of environmentally-safe resource recovery systems.⁵³

California's solid waste management statute⁵⁴ possesses different attributes. Recognizing the already extensive voluntary recycling program operating throughout the state,⁵⁵ the California

⁴⁷ Acceptability is defined as the use of a collection center, curbside pickup, and a program of public education and promotion. OR. REV. STAT. § 459.165 (1985).

⁴⁸ *Id.* § 459.188(3)(b), (c).

⁴⁹ *Id.* § 459.015(1)(a).

⁵⁰ *Id.* § 459.015(1)(b).

⁵¹ *Id.* § 459.015(2)(a). The other priorities are:

(A) First, to reduce the amount of solid waste generated;

(B) Second, to reuse material for the purpose for which it was originally intended; . . .

(D) Fourth, to recover energy from solid waste that cannot be reused or recycled, so long as the energy recovery facility preserves the quality of air, water and land resources; and

(E) Fifth, to dispose of solid waste that cannot be reused, recycled or from which energy cannot be recovered by landfilling or other method approved by the (D)epartment [of Environmental Quality].

Id. § 459.015(2)(a)(A-E).

⁵² *Id.* § 459.015(2)(b)-(c).

⁵³ *Id.* § 459.015(2)(L). "Resource recovery" is defined as "the process of obtaining useful material or energy resources from solid waste," including recycling, energy recovery, which presumably includes waste-to-energy incineration, material recovery, and reuse. *Id.* § 459.005(16)(a)-(d).

⁵⁴ CAL. GOV'T CODE §§ 66700-66795 (West 1983 & Supp. 1987).

⁵⁵ The legislature acknowledged the high volume of voluntary recycling in the solid waste laws.

The burden placed on existing solid waste management systems to collect disposal and littered products and the need to reduce energy and other resources consumption make it imperative that *the present high level of recycling activities* be continued and that resource recovery systems be developed to process all recyclable materials, as well as other energy rich components of solid waste.

CAL. GOV'T CODE § 66701(e) (West 1983) (emphasis added).

Legislature attempted to expand the scope by initiating a state-wide solid waste management⁵⁶ and resource recovery policy.⁵⁷ The policy to be developed by the State Solid Waste Management Board⁵⁸ places primary responsibility for solid waste management with local governments.⁵⁹ California's statute provides for civil penalties against persons who knowingly remove recyclable materials previously separated from other waste and set aside for pickup.⁶⁰ The solid waste laws also attempt to improve solid waste management throughout the state by obtaining technical and financial support for various "projects and activities."⁶¹

California also has a Used Oil Recycling Act,⁶² which was enacted to assist the state in its efforts to collect and recycle used industrial and automobile oil "in order to conserve irreplaceable petroleum resources, preserve and enhance the quality of natural and human environments, and protect public health and welfare."⁶³ The statute requires the establishment of a public education program,⁶⁴ a used oil recycler registration system,⁶⁵ and provisions for government agency procurement of recycled oil

⁵⁶ *Id.* § 66770.

⁵⁷ *Id.* §§ 66785-66787.

⁵⁸ *Id.* § 66740. The Board is also known as the California Waste Management Board. *Id.*

⁵⁹ *Id.* § 66730. Note that county and local solid waste management plans are subject to state review. *Id.* §§ 66780-66784.4.

⁶⁰ *Id.* § 66761. "Knowingly" means that "the person knows, or reasonably should know, that the materials would otherwise be collected by the authorized recycling agent for the purpose of recycling the materials." *Id.*

⁶¹ *Id.* §§ 66788-66789.4. Section 66788.2 indicates that projects and activities eligible for funding include:

- (a) Research and development projects.
- (b) Projects that demonstrate a new or innovative process, technology, or system.
- (c) Technical studies.
- (d) Practices to improve solid waste management health and safety practices in California.
- (e) Public awareness, education, and participation programs.

Id. § 66788.2. Section 66789.3(a) sets more specific qualifications for funding recycling projects, including the requirement that "[t]he materials collected will be absorbed in an existing materials recovery operation, or the materials, by being collected, will create a new market." *Id.* § 66789.3(a)(3).

⁶² CAL. PUB. RES. CODE §§ 3460-3473 (West 1984 & Supp. 1987).

⁶³ *Id.* § 3463. California generates approximately 100 million gallons of this oil per year. *Id.* § 3462.

⁶⁴ *Id.* § 3465.

⁶⁵ *Id.* § 3468.

products.⁶⁶

Finally, a California statute⁶⁷ is designed "to increase the public's awareness of the value of recycling."⁶⁸ The statute encourages "educational agencies," including local school districts and county and state colleges, to initiate a program for both paper recycling⁶⁹ and purchasing of recycled paper.⁷⁰ These educational agencies, with the California Waste Management Board, must create a curriculum on recycling and resource conservation and distribute it in order to further educate the public.⁷¹

Vermont's statutes outline a statewide solid waste management plan⁷² regulating solid waste disposal and treatment, with recycling among the highest of priorities.⁷³ The state's Secretary of Environmental Conservation is empowered to devise a waste management plan which will "ensure that packaging used and products sold in the state are not an undue burden to the state's ability to manage its work."⁷⁴

In addition to its bottle bill,⁷⁵ Vermont has provisions for financial assistance which are to be used to defray costs of solid waste management,⁷⁶ including waste treatment facility siting costs and market development for recyclables.⁷⁷ Finally, the Vermont statutes require that state agencies consider the use of recycled products when procuring school supplies and materials,⁷⁸ and authorize the Secretary of Natural Resources to develop a plan for establishing "solid waste recycling centers"⁷⁹ for the purpose of "storage, processing and sale or disposal of solid

⁶⁶ *Id.* § 3464.

⁶⁷ CAL. EDUC. CODE §§ 32370-32377 (West 1978 & Supp. 1987).

⁶⁸ *Id.* § 32370.

⁶⁹ *Id.* § 32372.

⁷⁰ *Id.* § 32373(a). An educational agency does not have to purchase recycled paper if the cost is five percent higher than comparable nonrecycled paper. *Id.*

⁷¹ *Id.* § 32376.

⁷² VT. STAT. ANN. tit. 10, §§ 6601-6618 (1984 & Supp. 1987).

⁷³ *Id.* § 6601.

⁷⁴ *Id.* § 6604(c). The statute suggests the Secretary consider product and packing bans and exemptions, taxes on products as well as "deposit and return legislation." *Id.* § 6604(c)(2)(A-C).

⁷⁵ *Id.* tit. 24, § 2201.

⁷⁶ *Id.* tit. 10, § 6618.

⁷⁷ *See id.* § 6618(b)(1)-(5).

⁷⁸ *Id.* tit. 29, § 905. Section 903(d) sets a goal of purchasing 40% of an agency's supplies with recycled materials by 1993. *Id.* § 903(d).

⁷⁹ *Id.* tit. 24, § 2206(a).

waste."⁸⁰

Rhode Island, recognizing the health, aesthetic and environmental problems associated with waste,⁸¹ enacted the Litter Control and Recycling Chapter⁸² in order "to accomplish litter control and establish community recycling programs throughout [Rhode Island]."⁸³ The Chapter provides the Department of Environmental Management with the authority to implement a statewide litter abatement and recycling plan, as well as the authority to encourage private recycling and overall public awareness of the issue.⁸⁴

2. New Jersey Law

In 1970, New Jersey enacted the Solid Waste Management Act.⁸⁵ This legislation was significantly amended in 1975.⁸⁶ The statute grants the New Jersey Department of Environmental Protection (DEP) the power and responsibility for the formulation of a statewide Solid Waste Management Plan setting forth the state's objectives with which each of twenty-two solid waste management districts throughout the state must conform.⁸⁷

The Solid Waste Management Act ostensibly balances the need for state management of solid waste disposal with local governments' needs to preserve "home rule." While the statute permits the local decision-makers to choose the best management plan for their communities,⁸⁸ it recognizes that entirely local regulation without centralized control results in "piecemeal, uncoordinated activities developed to meet the immediate needs of local governments" alone.⁸⁹ Moreover, since local governments lack the technical and financial resources to effectively solve their waste management problems, the law establishes "a meaningful

⁸⁰ *Id.*

⁸¹ R.I. GEN. LAWS § 37-15-1 (1984 & Supp. 1987).

⁸² *Id.* §§ 37-15-1 to -18.

⁸³ *Id.* § 37-15-2.

⁸⁴ *Id.* § 37-15-2(1)-(4).

⁸⁵ N.J. STAT. ANN. §§ 13:1E-1 to -198 (West 1979 & Supp. 1988).

⁸⁶ 1975 N.J. Laws 326.

⁸⁷ N.J. STAT. ANN. § 13:1E-2(b)(6) (West 1979 & Supp. 1988). The act designated the Hackensack Meadowlands district, in addition to all 21 counties, solid waste management districts. *Id.* § 13:1E-19.

⁸⁸ *Id.* § 13:1E-2(a).

⁸⁹ *Id.*

and responsible role for the state in the solution of solid waste problems" by empowering the DEP to review, develop, and implement a plan if a local district is unable to formulate its own program.⁹⁰

In 1981, the New Jersey Legislature passed the Recycling Act,⁹¹ which was later amended in 1985, and renamed the Clean Communities and Recycling Act.⁹² This act, supplementing the Solid Waste Management Act, calls for the state's first comprehensive, albeit voluntary, recycling plan.⁹³ Until December 31, 1987, the act imposed on owners and operators of landfills a "recycling tax" of twelve cents per cubic yard of solid waste accepted for disposal.⁹⁴ Moneys collected under the above recycling tax were to be put into a nonlapsing, revolving State Recycling Fund.⁹⁵ Forty-five percent of the proceeds of this Fund are to be used for a five-year recycling grants program given to municipalities.⁹⁶ In addition, twenty percent of the Fund's annual balance is to be used for both "low interest loans and . . . for a loan guarantee program for recycling businesses and industries."⁹⁷ The remainder of the proceeds are to be used for state, county and local recycling programs, as well as to educate the public about recycling.⁹⁸

⁹⁰ *Id.* § 13:1E-2(b)(6). Failure by the DEP to fulfill these requirements has produced a large amount of litigation. *See, e.g.,* A.A. Mastrangelo, Inc. v. Commissioner of DEP, 90 N.J. 666, 449 A.2d 516 (1982) (county decisions to direct and redirect waste within their solid waste districts pursuant to the statewide plan); *In re* Certain Amendments to the Adopted and Approved Solid Waste Management Plan of the Camden County Solid Waste Management District, 214 N.J. Super. 247, 518 A.2d 1105 (App. Div. 1986) (DEP's power to resort to litigation to enforce county plans or punish counties for their failure to adopt satisfactory plans); *New Jersey Dep't of Env'tl. Protection v. Middlesex County Bd. of Chosen Freeholders*, 206 N.J. Super. 414, 502 A.2d 1188 (Ch. Div. 1985); *In re* Application of Combustion Equipment Associates, Inc., 169 N.J. Super. 305, 404 A.2d 1194 (App. Div. 1979) (DEP's authority to monitor counties and augment their district management plans caused by local inaction or failure to comply with the statewide management plan).

⁹¹ 1981 N.J. Laws 278 §§ 1-8.

⁹² N.J. STAT. ANN. §§ 13:1E-92 to -99 (West Supp. 1988).

⁹³ *Id.* § 13:1E-93.

⁹⁴ *Id.* § 13:1E-95(a).

⁹⁵ *Id.* § 13:1E-96(a). The fund is collectively controlled by the Department of Energy and the DEP. *Id.*

⁹⁶ *Id.* § 13:1E-96(b)(1). Each municipality will be awarded an amount based upon the number of tons recycled each year in that municipality. *Id.*

⁹⁷ *Id.* § 13:1E-96(b)(2).

⁹⁸ *Id.* § 13:1E-96(3)-(5).

The New Jersey Legislature has also enacted statutes that encourage resource recovery and alleviate the high costs that local governments endure in sanitary landfill closures.⁹⁹ Other statutes provide for: increased landfill disposal taxes and procurement procedures for local governments to enter long-term contracts for resource recovery services with private industry;¹⁰⁰ a Sanitary Landfill Closure and Rate Relief Fund;¹⁰¹ and a Resource Recovery and Solid Waste Disposal Facility Fund.¹⁰²

The above statutes demonstrate New Jersey's commitment to solid waste management. This commitment, however, has not translated into successful management of the overwhelming volume of waste. Of the state's three-part waste management strategy, which included recycling, resource recovery, and landfilling, only landfilling was operational. With the state's landfills already operating at a strained capacity, the strategy offered only short-term solutions. It was urgent that New Jersey enact a large-scale recycling and resource recovery component to its solid waste management program. The Statewide Mandatory Source Separation and Recycling Act seems to be that solution.

III. The New Jersey Statewide Mandatory Source Separation and Recycling Act

A. Legislative History

From its inception, the concept of mandatory recycling in New Jersey met with general support among state officials and environmental groups, though some challenged the plan's foresight, claiming a lack of existing markets for recyclable materials would leave trash hopelessly piled up at recycling centers.¹⁰³ Amid that complex problem, the state faced the burden of designing a much-needed recycling program that would achieve both effective short-term results and overcome the substantial

⁹⁹ *Id.* § 13:1E-100 to -116. This act is known as the "Sanitary Landfill Closure and Contingency Fund Act." *Id.* § 13:1E-100.

¹⁰⁰ *Id.* § 13:1E-136.

¹⁰¹ *Id.* § 13:1E-169.

¹⁰² *Id.* § 13:1E-176. For further discussion of these laws, see Goldshore & Wolf, 1985 *Environmental Protection Legislation, The Year in Review*, 117 N.J.L.J. 335, 356-57 (1986).

¹⁰³ See Johnson, *Mandatory recycling enacted for Jersey*, The Star-Ledger (Newark, N.J.), Apr. 21, 1987, at 11, col. 1.

economic and political hurdles of wide scale recycling. These problems may be solved by the statewide Mandatory Source Separation and Recycling Act.

The Bill was sponsored by Senator Paul Contillo of Bergen County and Assemblyman Arthur Albohn of Morris County. The final version was approved by both houses of the legislature by unanimous vote.¹⁰⁴

Senator Contillo declared that this proposed legislation was intended to "complement the development of high technology and resource recovery at the county level with mandatory municipal source separation and recycling programs, in order to solve the State's garbage disposal problem in a comprehensive manner,"¹⁰⁵ and ultimately make recycling "a major component of New Jersey's solid waste management strategy."¹⁰⁶ The Senator emphasized the Bill's "markets-first" aspect whereby the market for the materials must be secured before the mandatory nature of the law goes into effect.¹⁰⁷ The Senator also noted the Bill's recognition of the need to confront the "environmental and social cost of product containers and packaging."¹⁰⁸ Senator Contillo stated that to properly effectuate a recycling plan, recycled or recyclable materials must "receive favorable tax treatment to encourage their use,"¹⁰⁹ as should businesses and industries that use or produce recycled or recyclable materials.¹¹⁰

Furthermore, there must be recognition of the need for recycling to be operational before resource recovery incinerators come on line. This is necessary to aid in the efficient and safe incineration of only the most combustible forms of solid waste and to encourage the recycling of materials that "have a higher recycled value as reprocessed goods than as fuel."¹¹¹ Finally, Senator Contillo stressed that the Bill's effectiveness is closely tied to the counties' reduction of solid waste by twenty-five percent. Such a decrease would help the state achieve the ultimate

¹⁰⁴ Governor Kean signed the Bill into law on April 20, 1987.

¹⁰⁵ *Statewide Mandatory Recycling Act: Public Hearings on S-1478 Before the Senate Energy and Environment Comm.*, 202d Legis., 1st Sess. 1 (Feb. 13, 1986).

¹⁰⁶ *Id.*

¹⁰⁷ *Id.* at 1-2.

¹⁰⁸ *Id.* at 2.

¹⁰⁹ *Id.*

¹¹⁰ *Id.*

¹¹¹ *Id.*

goal of "25% recycling, 50% resource recovery incineration, and landfilling the remainder of New Jersey's solid waste stream by the year 2000."¹¹²

B. *Legislative Findings*

New Jersey has made a conscious effort to produce "an effective and coherent solid waste management strategy."¹¹³ In order to continue the strides already made, the legislature concluded that a statewide mandatory recycling program would be needed.¹¹⁴

The legislature initially found that removal of recyclable materials from the solid waste stream would have a substantial effect on the state. It would "decrease the flow of solid waste to sanitary landfill[s], . . . conserve energy . . . and increase the supply of reusable raw materials for the State's industries."¹¹⁵ Moreover, the legislature found that recycling would not require expanded capacity at the proposed resource recovery incinerators, thereby reducing the facilities' operational costs.¹¹⁶

The legislature additionally discovered that "expeditious identification" and stimulation of markets for the recyclable materials must be made by the state as an absolute "prerequisite for the orderly development of mandatory Statewide county and municipal recycling programs."¹¹⁷

C. *Operation of the Law*

The statewide mandatory recycling plan created by the New Jersey Statewide Mandatory Source Separation and Recycling Act essentially provides a set of responsibilities for state, county, and local government, as well as for private industry. To be devised and implemented are local plans for the recycling of a designated number of recyclable materials. Enacted as a supplement to the Solid Waste Management Act,¹¹⁸ the Mandatory Act generally allocates responsibilities through the solid waste districts originally

¹¹² *Id.*

¹¹³ N.J. STAT. ANN. § 13:1E-99.11 (West Supp. 1988).

¹¹⁴ *Id.*

¹¹⁵ *Id.*

¹¹⁶ *Id.*

¹¹⁷ *Id.*

¹¹⁸ *Id.* §§ 13:1E-1 to -198.

created under the Solid Waste Management Act.¹¹⁹ The Mandatory Act is intended to replace the state's voluntary recycling program created under the Clean Communities and Recycling Act, thereby achieving the state's goal: recycling "at least 25 percent of the second preceding year's total municipal solid waste stream by . . . [1990]. . . ."¹²⁰

1. County Responsibilities

Pursuant to the Mandatory Act, each county must produce a recycling plan for the district, working in conjunction with each municipality.¹²¹ Each plan must be adopted by the county within six months of the Mandatory Act's effective date, April 20, 1987.¹²² The plan must include designation of: (1) a district recycling coordinator; (2) the recyclable materials to be separated in each municipality; (3) the strategy for the collection, marketing and disposition of designated source separated recyclable materials; and (4) recovery targets in each municipality to achieve the maximum feasible recovery of recyclable materials from the municipal solid waste stream.¹²³ As a recovery target, the Mandatory Act seeks to recycle¹²⁴ fifteen percent within one year after DEP

¹¹⁹ *Id.* § 13:1E-99.12. A district is a § 13:1E-19 solid waste management district. Hackensack Meadowlands district is excluded from this designation. *Id.*

¹²⁰ *Id.* § 13:1E-99.13(b)(4)(b). Note also that the district recycling plans, similar to the district solid waste management plans, are subject to DEP approval under the Mandatory Act. *Id.* § 13:1E-99.13(b)(4)(a).

¹²¹ *Id.* § 13:1E-99.13(a).

¹²² 1987 N.J. Laws 102 § 53. Section 53 declares the act shall take effect immediately. The law was approved on April 20, 1987. *Id.*

¹²³ N.J. STAT. ANN. § 13:1E-99.13(b)(1)-(4) (West Supp. 1988). "Recyclable materials" are defined as "those materials which would otherwise become municipal solid waste, and which may be collected, separated or processed and returned to the economic mainstream in the form of raw materials or products." *Id.* § 13:1E-99.12. A "municipal solid waste stream" is considered "all residential, commercial and institutional solid waste generated within the boundaries of any municipality." *Id.* "Disposition" is defined as "the transportation, placement, reuse, sale, donation, transfer or temporary storage for a period not exceeding six months of designated recyclable materials for all possible uses except for disposal as solid waste." *Id.* "Source separated recyclable materials" are those "recyclable materials, including but not limited to, paper, metal, glass, food waste, office paper and plastic which are kept separate and apart from residential, commercial and institutional solid waste by the generator thereof for the purposes of collection, disposition and recycling." *Id.*

¹²⁴ "Recycling" is "any process by which materials which would otherwise be-

approval of previous year's total municipal solid waste stream¹²⁵ and at the end of the second full year, the amount of recycling should be increased to at least twenty-five percent of the preceding year's total municipal solid waste stream.¹²⁶ Additionally, the Mandatory Act requires priority consideration be given to established recycling businesses when the district plans for a collection, marketing, and disposal strategy.¹²⁷ All these plans, however, can be modified by the respective counties according to DEP approved procedures.¹²⁸

2. Municipal Responsibilities

Municipalities similarly must adhere to a certain time schedule with regard to the implementation of a recycling program. A recycling coordinator first must be appointed.¹²⁹ The municipalities then should outline a suitable collection system for those recyclable materials named in the district plan six months after DEP approval of the county plan.¹³⁰ In cases where a municipality has not adopted a mandatory source separation program, it must adopt an ordinance requiring solid waste generators to separate leaves and other identified recyclable materials.¹³¹ The local ordinance must be adopted by the municipality's governing

come solid waste are collected, separated or processed and returned to the economic mainstream in the form of raw materials or products." *Id.* § 13:1E-99.12.

¹²⁵ *Id.* § 13:1E-99.13(b)(4)(a). "Total municipal solid waste stream" is defined as "the sum of the municipal solid waste stream disposed of as solid waste, as measured in tons, plus the total number of tons of recyclable materials recycled." *Id.* § 13:1E-99.13(b)(4)(b).

¹²⁶ *Id.* § 13:1E-99.13(b)(4)(b). Note here that the Mandatory Act continues to increase the recovery rates for municipalities during each year, so that the rate reflects a full 25% of the waste from the immediately preceding year, not 25% of the total waste from the two years combined, 15% of which would have already been recycled after the first year following DEP approval of the district plan.

In addition to the other noted requirements, counties must also designate and identify in their recycling plan a leaf composting facility. *Id.* § 13:1E-99.21. The counties may formulate an interdistrict leaf composting facility agreement.

¹²⁷ *Id.* § 13:1E-99.13(c).

¹²⁸ *Id.* § 13:1E-99.13(d).

¹²⁹ *Id.* § 13:1E-99.16.

¹³⁰ *Id.* § 13:1E-99.16(a). Such a plan may be unnecessary where the "generator or . . . county, interlocal service agreement or joint service program, or other private or public recycling program operator" provides for recycling collection systems. *Id.*

¹³¹ *Id.* § 13:1E-99.16(b). The recyclable materials are those for which a market has been secured. *Id.*

body within thirty days after the county or municipality enters into any contract for marketing of the specified materials.¹³²

Each municipality is also required to engage in periodic reviews and revisions of its master plan.¹³³ Such modification should "reflect the changes in State, county, and municipal policies and objectives."¹³⁴

Several sections of the Mandatory Act amend the state's Municipal Land Use Law.¹³⁵ In particular, the Act attempts to prompt municipalities to create a master plan which correlates with the district solid waste management plan.¹³⁶ The Mandatory Act further amends the Land Use Law so that municipal ordinances of subdivision or site plans requiring local planning board approval must include provisions which ensure "conformity with [the] municipal recycling ordinance."¹³⁷ The site plan ordinances currently require standards which relate to the recycling of the designated recyclable materials identified in the district recycling plan.¹³⁸ The Act also amends the Municipal Land Use Law so as to require a periodic review of the master plan with regard to "changes in the . . . collection, disposition, and recycling of designated recyclable materials."¹³⁹ Municipalities also are required to submit annual recycling tonnage reports to the New Jersey Office of Recycling.¹⁴⁰ The municipalities must notify all commercial, institutional, or residential occupants of the local source separation requirements and all potential local recycling opportunities.¹⁴¹

Despite these newly formulated regulations, municipalities

¹³² *Id.*

¹³³ *Id.* § 13:1E-99.16(c).

¹³⁴ *Id.* The amended master plan must provide for "collection, disposition and recycling of recyclable materials designated in the municipal recycling ordinance . . . and [include provisions for similar recycling in] any development proposal for the construction of 50 or more units of single-family residential housing or 25 or more units of multi-family residential housing and any commercial or industrial development proposal for the utilization of 1,000 square feet or more of land." *Id.*

¹³⁵ *Id.* §§ 40:55D-1 to -112.

¹³⁶ *Id.* § 40:55D-28. See *id.* §§ 13:1E-1 to -198.

¹³⁷ *Id.* § 40:55D-38.

¹³⁸ *Id.* § 40:55D-41.

¹³⁹ *Id.* § 40:55D-89.

¹⁴⁰ *Id.* § 13:1E-99.16(e). The initial report must be submitted by July 1, 1988 and before the first day of July every succeeding year. *Id.*

¹⁴¹ *Id.* § 13:1E-99.16(f). The method of notification is for the municipality to decide. The statute suggests a variety of methods including local newspaper adver-

may exempt certain persons from selected provisions. For example, occupants of institutional or commercial property which already have an established recycling plan can obtain an exemption from the source separation requirements.¹⁴²

In an effort to alleviate the strain which the provisions of the Mandatory Act places upon county and local operating budgets, the Act grants counties and municipalities an exemption from the spending limitations imposed by the state's budget "cap" laws.¹⁴³ This exemption also applies to expenditures or revenues received by counties or municipalities under the 1981 Clean Communities and Recycling Act.¹⁴⁴ The Mandatory Act further permits municipalities to mandate bidding for recycling collection, and handling contracts by registered solid waste collectors¹⁴⁵ in accord with the district recycling plan in the county where the solid waste collector or transporter does business.¹⁴⁶

The Mandatory Act also sets provisions for leaf composting. Specifically, municipalities must adopt ordinances relating to the collection system of leaves generated on residential property, and which require residents to separate the leaves from other solid waste.¹⁴⁷ All leaves collected by the municipality must be shipped to a leaf composting facility designated by the district recycling plan.¹⁴⁸

3. State Responsibilities

Various state agencies also must assume certain responsibilities under the Mandatory Act. The DEP, for instance, possesses the authority to promulgate rules and regulations which restrict the identification of plastic or bi-metal beverage containers¹⁴⁹ as

tisements, properly placed public notices, and a notice as part of regularly mailed official notices. *Id.*

¹⁴² *Id.* § 13:1E-99.16(d).

¹⁴³ *Id.* § 40A:4-45.34. *See id.* §§ 40A:4-45 to -87.

¹⁴⁴ *Id.* § 40A:4-45.35.

¹⁴⁵ *Id.* §§ 13:1E-4, -5. Collectors or transporters must also hold a "certificate of public convenience" pursuant to *id.* §§ 48:13A-6, -9.

¹⁴⁶ *Id.* § 13:1E-99.17.

¹⁴⁷ *Id.* § 13:1E-99.22. The ordinances must be adopted within 12 months of the Mandatory Act's effective date. *Id.* Additionally, source separation of leaves is only required from September 1 until the end of each respective year. *Id.*

¹⁴⁸ *Id.* § 13:1E-99.21(a). Such transportation must begin within 12 months of the effective date of the Mandatory Act. *Id.*

¹⁴⁹ "Beverage" is defined as "milk, alcoholic beverages, including beer or other

recyclable unless the DEP locates a "convenient and economically feasible recycling system" for those containers.¹⁵⁰ The DEP must make a written determination regarding the feasibility of plastic or bi-metal beverage container recycling for counties and municipalities within eighteen months after the Act's effective date.¹⁵¹ The DEP's determination should be based on a comparison between recovery rates of plastic or bi-metal beverage containers and glass or aluminum beverage containers over the preceding year.¹⁵² If, on a percentage basis, the rates are at least equal, the mechanism should be deemed feasible.¹⁵³ However, should the DEP determine that the recycling rate for plastic or bi-metal containers does not equal that of glass or aluminum, the DEP must report the findings, and promulgate "appropriate recommendations for the proper disposition or recycling of these [plastic or bi-metal] containers."¹⁵⁴

malt beverages, liquor, wine, vermouth and sparkling wine, and nonalcoholic beverages, including fruit juice, mineral water and soda water and similar nonalcoholic carbonated and noncarbonated drinks intended for human consumption." *Id.* § 13:1E-99.12. A "beverage container" is "an individual, separate, hermetically sealed, or made airtight with a metal or plastic cap, bottle or can composed of glass, metal, plastic or any combination thereof, containing a beverage." *Id.*

¹⁵⁰ *Id.* § 13:1E-99.18(a).

¹⁵¹ *Id.* § 13:1E-99.19(a).

¹⁵² *Id.*

¹⁵³ *Id.*

¹⁵⁴ *Id.* § 13:1E-99.19(b). The legislature hesitated to mandate recycling of plastic and bi-metal products, instead choosing to further study their recovery and marketing abilities. The feasibility of mandating the recycling of plastic and bi-metal beverage containers, especially post-consumer plastic waste materials, was the subject of extended debate throughout the drafting of the Mandatory Act. Jean Clark, President of New Jersey Recycling Forum, an organization composed of recycling industries, dealers, haulers, county and municipal recycling coordinators, and environmental groups, noted during a public hearing that:

[T]here is great concern about the increasing shift from the use of recyclable packing materials such as paper and glass to materials for which there is no ready recycling market, such as plastic containers, aseptic packaging, and bi-metal cans. We feel, however, that this is a very complex issue and should be dealt with in a separate bill. We feel it is particularly unwise to provide for the almost automatic imposition of deposits on both plastic containers and tires, solely at the discretion of a department head, without any further action by the legislature. Any such proposals should be acted upon separately through the legislative process after full debate on both environmental and economic aspects. We feel that the hazards attributed to aseptic packaging and PVC containers should be carefully documented before such a drastic action as an outright ban is imposed.

Similarly, the DEP is responsible for preparing a report on practical methods available for the recycling and disposing of

Statewide Mandatory Recycling Act: Public Hearings on S-2820 Before the Senate Energy and Environment Comm., 201st Legis., 2d Sess. 74 (May 22, 1985).

By accepting the study concept of the Recycling Forum in enacting section 11(b), the legislature has thus retreated from an earlier proposal to impose a deposit on plastic and bi-metal containers if they were not ultimately recycled at a rate equalling other recyclable materials. The technology for recovering and marketing plastics had not yet reached the level of sophistication available for other recyclable materials, as noted by Roger D. Bernstein, Director of State Government Affairs for the Society of the Plastics Industry, Inc., a trade association representing 1,400 plastics manufacturing companies throughout the United States, 115 of which are located in New Jersey. Mr. Bernstein stated that "[r]ecycling of plastics has to take into account the fact that the materials must be separated according to their distinct types. . . . Some plastics lend themselves to regrinding for manufacturing; others are only suitable for recycling energy value through incineration and resource recovery." *Id.* at 38-39. In addition, "there is no such thing as a universal plastic material. Everybody says 'Plastics, plastics,' but plastic containers can be as different from one another as aluminum is different from copper. Plastic is a very broad generic term which doesn't represent the actual distinct products made up under that umbrella." *Id.* at 38. Mr. Bernstein believes the plastic industry must first develop a product that is easily recycled, notably a "1) . . . consistent source of plastic which is separated into generic types; 2) an economically viable process to clean it up to usable quality, . . . and 3) regular markets for which the recovered material is suitable." *Id.* at 39. Mr. Bernstein added that plastics manufacturers have organized the Plastic Recycling Institute (PRI), a nonprofit laboratory at Rutgers University with \$1 million in funding. PRI's purpose is to research and develop "state-of-the-art technology to improve both the quality and the economics of recycled products." *Id.* He noted that "[s]oft drink and milk containers will be in the forefront of early research because we think they are simply the best targets for more massive plastic recycling." *Id.*

The legislature also addressed public concerns that plastic is not as amenable to waste-to-energy incineration as other waste materials, due to the perceived potentially toxic by-products of plastics combustion, especially of plastics containing polyvinyl chloride [PVC]. As Carl Kamena, Director of Government Relations and Public Issues for Dow Chemical stated, numerous studies have shown that the public's fears may be a misconception. He noted "[a] chlorinated plastic like PVC or PVDC will, in fact, add to the energy content of the waste flow, and will promote combustion efficiency." *Id.* at 44. He rejected a proposal to separate PVC's and related materials from waste sent to incinerators, since "[t]here is not a problem with the emissions when burning PVC." *Id.* at 45 (citing studies done in New York, Ontario, and France). He added there "really [is] a common misperception that these waste-to-energy incinerators have a propensity for improper operation, resulting in the formation of these [toxic] products, which are basically products of incomplete combustion, when, in fact, they are intentionally designed for maximum destruction in order to achieve the best possible conversion to energy." *Id.*

The legislature thus rejected a proposal giving the plastic industry eighteen months to recycle 55% of its products, and if it failed, then to ban PVC plastics and place a mandatory deposit on all other plastics. *Id.* at 43. See N.J. STAT. ANN. §§ 13:1E-99.18 to -99.25 (West Supp. 1988).

scrap automobile tires.¹⁵⁵ The DEP must investigate possible alternatives for recovering and reusing scrap tires found in the municipal solid waste stream.¹⁵⁶

The DEP is not alone in the recycling arena. The Mandatory Act also compels state and local agencies that maintain public lands to give preference to composted materials, if possible, when maintaining such lands with public funds.¹⁵⁷ The state Department of Treasury is also compelled to participate. The Director of the Division of Purchase and Property is responsible for ensuring that bid and product specifications encourage the purchase of recycled paper or recycled paper products.¹⁵⁸ Spe-

¹⁵⁵ N.J. STAT. ANN. § 13:1E-99.20 (West Supp. 1988).

¹⁵⁶ *Id.* Such methods include "incineration, artificial reef construction, retreading, asphalt paving material manufacture, sludge composting and energy recovery." The report must be prepared within 18 months of the Mandatory Act's effective date, and must include recommendations to the Governor and the legislature on the need for imposing a deposit on automobile tires. *Id.*

This section, similar to the previous sections on plastic and bi-metal products, apparently resulted as a compromise over the feasibility of mandating the recovery and reuse of scrap tires as a means of abating litter and reducing the burden on landfill space. According to Frank T. Ryan, Vice President of Government Relations for the Rubber Manufacturers Association, a national trade association representing producers of rubber goods, scrap tires should not be viewed merely as a disposal problem, but also as a "valuable source of energy or other useful by-products." *Statewide Mandatory Recycling Act: Public Hearings on S-2820 Before the Senate Energy and Environment Comm.*, 201st Legis., 2d Sess. 65 (May 22, 1985). Moreover, "the disposal of scrap tires presents some special problems which need to be addressed. In their normal or whole state, they are unsuitable for disposal in landfills, even if adequate landfills were to exist. However, the basically simple act of shredding a tire into smaller pieces greatly enhances the ability to deal with its disposal," thus enabling tires to be used as fuel, artificial reefs, or as additives to asphalt paving when finely ground. *Id.* Scrap tires, then, can be used as fuel or other products, but they cannot be "recycled in the same way that a beverage container or paper product is recycled. Whereas the recycled glass, paper, or metal can be reused in the process of producing another glass or metal container or paper products, there is minimal reuse of scrap tires as material in the tire manufacturing process." *Id.* By enacting section 12 of the Mandatory Act, the legislature thus rejected a deposit proposal for tires similar to the plan envisioned for plastic or bi-metal beverage containers. See N.J. STAT. ANN. §§ 13:1E-99.20, -99.29 (West Supp. 1988).

¹⁵⁷ N.J. STAT. ANN. § 13:1E-99.23 (West Supp. 1988).

¹⁵⁸ Paper [is defined as] all newspaper, high-grade office paper, fine paper, bond paper, offset paper, xerographic paper, mimeo paper, duplicator paper, and related types of cellulosic material containing not more than 10% by weight or volume of non-cellulosic material such as laminates, binders, coatings, or saturants.

Paper product [is] any paper items or commodities, including but not limited to, paper napkins, towels, corrugated and other cardboard,

cial treatment should be provided "to recycled paper or recycled paper products with the highest percentage of post-consumer waste material."¹⁵⁹ Additionally, the Director is required to solicit proposals for recycled paper for state agency or county, municipality, or school district use.¹⁶⁰ The Director must make contracts from these solicitations available if the price is deemed competitive for the purpose intended.¹⁶¹ Competitiveness exists when the recycled product's price is "within 10% of the price of items which are manufactured or produced from virgin paper products."¹⁶² Contracts for virgin paper products may be awarded if recycled product proposals are not considered competitive.¹⁶³ Awarding a contract to a virgin products manufacturer does not insulate the Director from a continuing obligation to seek out competitive recycled product proposals.¹⁶⁴ Additionally, the statute sets forth minimum amounts of recycled paper that must be purchased. Specifically, the state must contract for ten percent recycled products by July 1, 1987, thirty percent by July 1, 1988, and no less than forty-five percent by July 1, 1989.¹⁶⁵

The Transportation Commission also has a voice in promot-

construction material, toilet tissue, paper and related types of cellulosic products containing not more than 10% by weight or volume of non-cellulosic material such as laminates, binders, coatings, or saturants.

Recycled paper [is] any paper having a total weight consisting of not less than 50% secondary waste paper material.

Recycled paper product [is defined as] any paper product consisting of not less than 50% secondary waste paper material.

Secondary waste paper material [is] paper waste generated after the completion of a paper making process, such as post-consumer waste material, envelope cuttings, bindery trimmings, printing waste, cutting and other converting waste, butt rolls and mill wrappers; except that secondary waste paper material shall not include fibrous waste generated during the manufacturing process, such as fibers recovered from waste water or trimmings of paper machine rolls, fibrous by-products of harvesting, extractive or woodcutting processes, or forest residue such as bark.

Id. § 13:1E-99.12.

¹⁵⁹ *Id.* § 13:1E-99.24. See also *id.* § 52:34-21.

¹⁶⁰ *Id.* § 13:1E-99.25.

¹⁶¹ *Id.* § 13:1E-99.25(a).

¹⁶² *Id.*

¹⁶³ *Id.* § 13:1E-99.25(b).

¹⁶⁴ *Id.*

¹⁶⁵ *Id.* § 13:1E-99.27(a). Again, as in § 13:1E-99.25 the Director of the Division of Purchase and Property does not discharge any future obligation to purchase re-

ing the state's purchase of recycled materials. The Commissioner of Transportation is obligated to review contract bids and specifications for road building and paving materials. In connection with this review the Commissioner must encourage the utilization of recycled materials.¹⁶⁶ The Commissioner must perform similar bid and specification reviews with regard to asphalt or recycled asphalt pavement purchases, in order to encourage pavement manufacturers to use waste oil fuel.¹⁶⁷

The Mandatory Act establishes review procedures for both the DEP and the Board of Public Utilities (BPU) over proposed solid waste and resource recovery facilities, respectively, to ensure those proposals incorporate the goals of the local district recycling plan as required under the Mandatory Act.¹⁶⁸

The Mandatory Act also permits the government to contract for recyclables without public bidding. Similarly, section 32 provides that government contracting units may sell recyclables recovered through public recycling programs without public bidding.¹⁶⁹

The BPU, however, has no authority regarding the recycling rates.¹⁷⁰ The revenues earned through recycling by those engaged in recycling services are not subject to solid waste collection tariffs.¹⁷¹ Additionally, current solid waste collectors and disposers can participate in providing such services.¹⁷²

The DEP does not have complete discretion under this Act. For example, there is no requirement for recycling centers¹⁷³ to acquire from the DEP "a registration statement, engineering design approval, or approval of environmental and health impact

cycled products by awarding contracts to manufacturers of virgin materials at any given time. *Id.* § 13:1E-99.27(b).

¹⁶⁶ *Id.* § 13:1E-99.28. The recycled materials include "crumb rubber from automobile tires, ash, glass and glassy aggregates." *Id.*

¹⁶⁷ *Id.* § 13:1E-99.29.

¹⁶⁸ *Id.* §§ 13:1E-99.30, -99.31.

¹⁶⁹ *Id.* §§ 40A:11-1, -39, -32.

¹⁷⁰ *Id.* § 13:1D-18.3(b).

¹⁷¹ *Id.* § 40A:4-45.37.

¹⁷² *Id.* § 13:1E-99.33(a).

¹⁷³ "Recycling center" is defined as "any facility designed and operated solely for receiving, storing, processing and transferring source separated, nonputrescible or source separated commingled nonputrescible metal, glass, paper, plastic containers, and corrugated and other cardboard, or other recyclable materials approved by the [DEP]." *Id.* § 13:1E-99.12.

statement prior to the commencement of operations.”¹⁷⁴ However, recycling centers must obtain DEP approval before receiving, storing, processing, or transferring any waste materials besides “source separated nonputrescible or source separated commingled nonputrescible metal, glass, paper, or plastic containers, and corrugated and other cardboard.”¹⁷⁵

The Director of the Division of Taxation plays an integral part under the Act as well. The Director and the DEP Commissioner are jointly responsible for the administration of a tax credit program for taxpayers who purchase certified recycling equipment for exclusive use within the state.¹⁷⁶ The credit offsets the taxes imposed at the rate of fifty percent of the cost of the recycling equipment¹⁷⁷ less any loans received under the government loan program in the Clean Communities and Recycling Act.¹⁷⁸ The tax credit, which is permitted every year the recycling equipment receives certification, may not “exceed 20% of the amount of the total credit allowable, shall not exceed 50% of the tax liability which would be otherwise due, and shall reduce the amount of tax liability to less than the statutory minimum. . . .”¹⁷⁹

The Mandatory Act also creates the Statewide Mandatory Source Separation and Recycling Program Fund under a special accounting by the Department of Treasury.¹⁸⁰ The Fund, admin-

¹⁷⁴ *Id.* § 13:1E-99.34(a).

¹⁷⁵ *Id.* § 13:1E-99.34(b).

¹⁷⁶ *Id.* § 54:10A-53.

¹⁷⁷ “Recycling equipment” is defined as “new vehicles used exclusively for the transportation of post-consumer waste material, or new machinery or new apparatus used exclusively to process post-consumer waste material and manufacturing machinery used exclusively to produce finished products, the composition of which is at least 50% post-consumer waste materials.” *Id.* § 54:10A-53(a).

“Post-consumer waste material” is “any product generated by a business or consumer which has served its intended end use, and which has been separated from solid waste for the purposes of collection, marketing and disposition and which does not include secondary waste material or demolition waste.” *Id.*

“Secondary waste material” is “waste material generated after the completion of a manufacturing process.” *Id.*

¹⁷⁸ *Id.*

¹⁷⁹ *Id.* This section sets forth certification and tax filing procedures, authorizes DEP and the Director of the Division of Taxation to promulgate rules and standards for equipment certification. *Id.* § 54:10A-53(b). Additionally, the DEP Commissioner is required to report annually to the Governor, State Treasurer, and the Legislature on certification and tax credit activities. *Id.*

¹⁸⁰ *Id.* § 13:1E-99.35(a).

istered through the State Treasurer, is intended to assist counties and municipalities in establishing recycling programs and to aid in conducting market studies with regard to recyclables.¹⁸¹ These studies must center on recyclable material, such as "automobile tires, paper and plastic beverage containers."¹⁸² In addition, the studies are required to include a consideration of "alternative pricing structures and marketing strategies, including . . . 'negative pricing,'" as a means of determining whether recyclables may be marketed and competitively disposed of through methods other than "traditional price structures and commodity sales and transactions."¹⁸³

Finally, the DEP Commissioner must report to the legislature on April 1, 1990, regarding implementation of the Mandatory Act.¹⁸⁴ The Commissioner is additionally required to update the report as necessary, but "at least once every three years. . . ."¹⁸⁵ Included in the report should be recommendations regarding the recycling tax, as well as indications as to the success of county and municipality plans.¹⁸⁶

4. Commercial and Private Responsibilities

The Act places some of the responsibility of implementation on commercial and private entities. For example, no sanitary landfill facility is permitted to accept "for final disposal truckloads composed primarily of leaves. . . ."¹⁸⁷ However, if the leaves are source separated, they may be accepted to provide final vegetative cover, soil conditioning material, or if the landfill possesses a leaf composting facility.¹⁸⁸

Furthermore, persons selling motor oil¹⁸⁹ may do so only if every oil container is clearly labeled that it contains "recyclable material" that must be disposed of only at a "used oil collection center."¹⁹⁰ "Motor oil retailers"¹⁹¹ must also "conspicuously

¹⁸¹ *Id.*

¹⁸² *Id.* § 13:1E-99.38.

¹⁸³ *Id.*

¹⁸⁴ *Id.* § 13:1E-99.9.

¹⁸⁵ *Id.*

¹⁸⁶ *Id.*

¹⁸⁷ *Id.* § 13:1E-99.21(b).

¹⁸⁸ *Id.*

¹⁸⁹ *Id.* § 13:1E-99.35(a).

¹⁹⁰ *Id.* § 13:1E-99.35(a)(1).

post" a sign demonstrating "the importance of the proper collection and disposal of used oil" and the proper procedures.¹⁹² Similarly, owners or operators of "used oil collection centers"¹⁹³ must post signs in "prominent locations" informing the public that the site has been designated for used oil disposal.¹⁹⁴

IV. Analysis and Conclusions

New Jersey's Mandatory Act is the nation's most comprehensive recycling program. As part of New Jersey's comprehensive solid waste management plan, the Mandatory Act has considerable impact on achieving a desirable recycling law.

From a socio-political perspective, the Act's provisions concerning oil collection advertising and public education about recycling reveal the legislature's concern toward changing public attitudes about recycling, the desirability of recycled products, and the many social benefits of recycling. The Act attempts to grapple with the state's historical deference to "home rule" by striking a balance between the state's need to achieve a coordinated solid waste solution and the local government's need to participate in solid waste decisions which affect the local community. State officials are optimistic that the process will result in significant statewide recycling within a relatively short period of time.

From an economic perspective, the Mandatory Act helps resolve some of the basic problems of supply and demand which have plagued recycled goods. For example, while counties have primary responsibility for designing a recycling plan, state assistance is available if a county is unable to secure a market for its

¹⁹¹ A "motor oil retailer" is "any person who sells to consumers more than 500 gallons of lubricating or other oil annually in containers for use off the premises where sold." *Id.* § 13:1E-99.35(a)(2). The DEP Commissioner is also authorized to promulgate necessary rules and regulations to implement this section. *Id.* § 13:1E-99.35(b).

¹⁹² *Id.* § 13:1E-99.35(a)(2).

¹⁹³ A "used oil collection center" is "any reinspection station permitted by the Division of Motor Vehicles in the Department of Law and Public Safety, or retail service station which has a used oil collection tank on the premises, or any site which accepts used oil for recycling." *Id.* § 13:1E-99.36(a). The DEP Commissioner is again authorized to promulgate any necessary rules and regulations under this section. *Id.* § 13:1E-99.36(b).

¹⁹⁴ *Id.* § 13:1E-99.36(a).

recyclables. Furthermore, the Mandatory Act institutionalizes government's procurement of recycled goods through provisions which require that public land maintenance programs include the use of composted materials. Likewise, state agencies must purchase a percentage of recycled paper and rubber products, including paper products containing a portion of post-consumer waste material.

In the final analysis the adoption of the Mandatory Act will result in the establishment of a recycling program which will be an effective component in New Jersey's long-term solid waste disposal strategy. As predicted by state officials, statewide recycling will reduce the amount of consumer waste, especially paper, glass, and aluminum currently sent to the state's landfills. Initially, the program may meet with confusion and dissent among New Jersey citizens. Over time, however, with the existence of public education programs, mandatory recycling should evolve into an accepted part of every citizen's life. As Assemblyman Albohn commented after the passage of the Mandatory Act, "[i]t's a question of developing a habit that, hopefully, will become as natural as breathing."¹⁹⁵

The New Jersey Statewide Mandatory Source Separation and Recycling Act is by far the most significant step taken by the New Jersey Legislature towards an effective, long-term solution to the state's solid waste crisis. The Mandatory Act is a competent and effective piece of recycling legislation. Theoretically sound, it will more than assist New Jersey in solving one of today's most complex and far-reaching social issues.

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¹⁹⁵ See *supra* note 103.