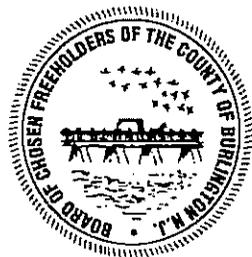


**BURLINGTON COUNTY
DISTRICT SOLID WASTE
MANAGEMENT PLAN UPDATE
JULY 2008
REVISED JUNE 2009**



**Burlington County
Department of Resource Conservation
Division of Solid Waste Management**

printed on recycled paper

**BURLINGTON COUNTY
DISTRICT SOLID WASTE MANAGEMENT PLAN UPDATE**

TABLE OF CONTENTS

| | | |
|--------------------|--|----|
| <u>Section I</u> | Introduction..... | 1 |
| <u>Section II</u> | Definitions..... | 4 |
| <u>Section III</u> | Solid Waste and Sludge Generation Projections | 14 |
| | A. Solid Waste | 14 |
| | 1. Current and Projected Generation Rates..... | 14 |
| | 2. Composition..... | 14 |
| | 3. Waste Generation and Disposal Trends..... | 14 |
| | B. Sludge | 15 |
| | 1. Current and Projected Generation Rates..... | 15 |
| | 2. Quality..... | 16 |
| | 3. Sludge Generation and Disposal Trends..... | 17 |
| <u>Section IV</u> | Solid Waste Management Strategy..... | 19 |
| | A. Basic Principals..... | 19 |
| | B. Affirmation of Strategy..... | 20 |
| | 1. Solid Waste | 20 |
| | 2. Sludge | 20 |
| | 3. Recycling | 21 |
| | 4. Household and Small Quantity Generators of Hazardous Waste | 21 |
| | 5. Resource Recovery | 22 |
| | C. Background..... | 22 |
| | D. Flow Control and Participation in the Burlington County Solid Waste Management System..... | 25 |
| | 1. Solid Waste | 26 |
| | a. In-County Generated Waste..... | 26 |
| | b. Out-of-County Waste..... | 28 |
| | 2. Sludge | 29 |
| | a. In-County Generated Sludge..... | 29 |
| | b. Out-of-County Generated Sludge | 29 |
| <u>Section V</u> | Financing of the Solid Waste Management System | 31 |
| | A. Public Utility..... | 31 |
| | B. Solid Waste Processing and Disposal Fees..... | 32 |
| | C. Solid Waste Utility Fund | 32 |
| | D. Sanitary Landfill Closure Escrow..... | 33 |
| | E. Financial Stability of Solid Waste Utility..... | 34 |

| | | |
|--------------------|---|----|
| <u>Section VI</u> | Solid Waste and Sludge Management Facilities | 37 |
| | A. Existing Facilities..... | 37 |
| | 1. Burlington County Resource Recovery Complex..... | 37 |
| | 2. Transfer Stations | 45 |
| | a. Republic Services New Jersey, LLC | 45 |
| | 3. Intermodal Container Facilities | |
| | a. Safety Kleen Corporation | 46 |
| | 4. Sludge and Septage Facilities | 47 |
| | a. Burlington County Co-composting Facility..... | 47 |
| | b. Mount Holly Municipal Utilities Authority..... | 48 |
| | c. Pemberton Township Land Application Site..... | 49 |
| | d. Beverly City Sewerage Authority Reed Beds..... | 50 |
| | e. New Lisbon Developmental Center Reed Beds..... | 51 |
| | 5. Recycling Facilities..... | 52 |
| | a. Class A Facilities | 52 |
| | (1) Robert C. Shinn, Jr. Recycling Center..... | 52 |
| | b. Class B Facilities..... | 53 |
| | (1) Burlington County Resource Recovery Complex..... | 53 |
| | (2) Herman’s Trucking | 53 |
| | (3) Mimplitsch Enterprises, Inc. | 54 |
| | (4) STA-SEAL..... | 55 |
| | c. Class C Facilities..... | 56 |
| | d. Class D Facilities | 57 |
| | (1) Federal Prison Industries..... | 57 |
| | 6. Exempt Facilities | 57 |
| | a. Limited Recycling Centers | 57 |
| | b. Leaf Mulching Operations | 58 |
| | c. Convenience Centers | 58 |
| | (1) Bass River Township | 59 |
| | (2) North Hanover Township | 59 |
| | (3) Woodland Township..... | 59 |
| | d. Research Development and Demonstration Projects..... | 59 |
| | B. Closed Facilities..... | 60 |
| <u>Section VII</u> | Waste Collection and Transportation..... | 61 |
| | A. Collection..... | 61 |
| | 1. Residential Establishments | 61 |
| | a. Single Family Dwellings..... | 61 |
| | b. Multifamily Dwellings..... | 61 |
| | 2. Commercial and Institutional Establishments | 63 |
| | 3. Construction and Demolition Projects | 63 |

| | |
|--|-----|
| 4. Industrial, Manufacturing and Food Processing Establishments..... | 63 |
| 5. Trends in Solid Waste Collection | 64 |
| a. Consolidation of Service Area | 64 |
| b. Natural Gas Trucks and Biomethane Fuel | 65 |
| B. Transfer Stations | 66 |
| C. Rail Transfer Facilities..... | 67 |
| <u>Section VIII</u> Procedures, Standards and Implementation | 69 |
| A. Designation of Implementation Authority | 69 |
| B. Solid Waste Advisory Council..... | 69 |
| C. Public Participation Procedures | 69 |
| 1. Objectives | 69 |
| 2. Solid Waste Advisory Council..... | 70 |
| 3. Plan Amendments | 70 |
| 4. Media Communications | 71 |
| D. Procedures for Consideration of Amendments to the District Plan..... | 71 |
| 1. Applicability | 71 |
| 2. Plan Amendments to Include New Facilities, Sites and/or Facility Expansions in the Plan..... | 71 |
| 3. Procedures for Plan Amendments to Address Emergency or Unexpected Situations Not Involving a New Facility Site, New Facility or Facility Expansion..... | 79 |
| 4. Administrative Actions | 79 |
| 5. Procedures for Inclusion of Class C Composting Facilities | 80 |
| E. General Policies of the Solid Waste Management District..... | 81 |
| 1. Policy Related to Transfer Stations..... | 81 |
| 2. Compliance History Policy | 82 |
| 3. Policy with Regard to Siting New Facilities Within the County or Facility Expansions to Serve Needs of Those Outside the County | 82 |
| F. Substantive Facility Standards..... | 83 |
| 1. Disposal Facility Siting Policy..... | 83 |
| 2. Specific Standards Applicable to Putrescible Waste Composting Facilities..... | 84 |
| 3. Specific Standards Applicable to Land Application Facilities | 85 |
| <u>Section IX</u> Source Reduction | 86 |
| A. Yard Waste..... | 86 |
| B. Hazardous Waste | 87 |
| C. Solid Waste | 90 |
| <u>Section X</u> Recycling Plan | 92 |
| A. Required Recycling Plan Elements..... | 92 |
| B. Designation of District Recycling Coordinator | 93 |
| C. Designation of Recovery Targets..... | 93 |
| D. Mandatory Recyclable Materials | 94 |
| E. Current and Projected Recovery Goals by Material | 103 |

| | |
|---|-----|
| F. Strategy for Collection, Marketing and Disposition..... | 108 |
| 1. Class A Recyclable Materials..... | 108 |
| 2. Other Designated Recyclables..... | 130 |
| 3. County Programs for Non-Designated Recyclables..... | 137 |
| G. Municipal Responsibilities..... | 139 |
| 1. Designate a Municipal Recycling Coordinator..... | 140 |
| 2. Provide for a Collection System..... | 140 |
| 3. Adopt Recycling Ordinances..... | 141 |
| 4. Review and Revise Master Plan..... | 144 |
| 5. Submit Recycling Tonnage Reports..... | 145 |
| 6. Notify Generators of Recycling Opportunities and Requirements..... | 145 |
| H. County Communication Programs..... | 147 |
| 1. Publications..... | 147 |
| 2. Other Communication Measures..... | 148 |
| I. Reporting and Enforcement Strategies..... | 149 |
| 1. Reporting of Solid Waste and Recycling Tonnages..... | 149 |
| 2. Enforcement..... | 152 |

Tables, Figures and Appendices

Tables (Located at the end of each Section)

| | |
|------|--|
| 3-1 | Annual Trends in Solid Waste Generation and Disposal in Burlington County 1996 – 2006 |
| 3-2 | Solid Waste Generation in Burlington County 1996 – 2006 |
| 3-3 | Ten Year Solid Waste Generation Projections 2006 – 2017 |
| 3-4 | Waste Composition in New Jersey |
| 3-5 | Trends in Solid Waste Disposal, In-County versus Out-of-County 1998 – 2007 |
| 3-6 | Wastewater Treatment Facility Flows 2002 – 2006 |
| 3-7 | Sludge Production in Burlington County 2002 – 2006 |
| 3-8 | In-County Sludge Accepted at the Burlington County Co-Composting Facility 2002 – 2006 |
| 3-9 | Ten Year Sludge Generation Projections 2005 – 2017 |
| 3-10 | Sludge Quality Data 2004 – 2007 |
| 6-1 | Landfill No. 2 Life Expectancy Scenarios Under Various In-Place Densities and Fill Rates |
| 6-2 | Inventory of Solid Waste and Recycling Facilities in Burlington County 2007 |
| 6-3 | Closed Solid Waste and Recycling Facilities |
| 6-4 | Other Closed Facilities and Operations |
| 7-1 | Municipal Residential Waste Collection Agency |
| 7-2 | Private Solid Waste Collection Companies Servicing Burlington County |
| 9-1 | Household Hazardous Waste and CESQG Annual Participation and Waste Quantities Collected |
| 9-2 | Municipal Satellite Collection Program Participants |

Tables (continued)

- 10-1 Annual Trends in Solid Waste Generation, Disposal and Recycling in Burlington County 1996 – 2006
- 10-2 Designated Recyclables
- 10-3 Burlington County Material Recycling Goals
- 10-4 Composition of Commingled Recyclables
- 10-5 Burlington County Regional Recycling Program Totals by Municipality 2007
- 10-6 Curbside Recovery Rates 2007
- 10-7 Depot Recovery Rates
- 10-8 Recycling Capacity and Siting Guidelines for Multifamily Complexes
- 10-9 Tons of Consumer Electronics Collected 2000 – 2007
- 10-10 DEP Municipal Origin Codes

Figures

- Figure 1 – Site Plan of Existing Solid Waste and Recycling Facilities
- Figure 2 – Burlington County Resource Recovery Complex Site Plan Map

Appendices

- Appendix A – Chronology of Adoption of Burlington County District Solid Waste Management Plan and Plan Amendments
- Appendix B – Guidelines for the Granting of Municipal Exemptions for Commercial and Institutional Establishments
- Appendix C – Recycling Plan Component for New Development
- Appendix D – Construction and Demolition Recycling Ordinance

I. INTRODUCTION

In enacting the Solid Waste Management Act (the "Act" or "SWMA") in 1975, the New Jersey State Legislature determined that the county was the appropriate level of elected government to develop and implement a solid waste management plan and the sensitive decisions central to the planning process. The county was a jurisdictional unit of a sufficient size to implement a solid waste plan, but at the same time was sufficiently close to smaller governmental units and the citizenry to be able to respond to the public's concern, to maximize democratic participation, and to respond to special regional characteristics. The Legislature also sought to maintain, to the extent possible, the strong home rule tradition in the State, particularly in light of the Solid Waste Management Act's preemption of municipal land use and zoning powers.

Each county board of chosen freeholders was given primary responsibility for developing and implementing a comprehensive solid waste management plan to meet the disposal needs of every municipality within the county for a ten year period. The plan was required to include: (1) an inventory and appraisal, including life expectancy, of all existing solid waste disposal facilities; (2) a site plan which includes: (a) all existing solid waste facilities "operated and maintained in accordance with all applicable health and environmental standards" and (b) sufficient, additional, available suitable sites to provide solid waste facilities to treat and dispose of the actual and projected amounts of solid waste over the ten year planning process; and (3) a disposal strategy which incorporates the maximum practicable use of resource recovery. N.J.S.A. 13:1E-21. In addition, the Act directed the State Department of Environmental Protection ("DEP" or "Department") to develop a Statewide solid waste management plan which was to provide the objectives, criteria and standards for the evaluation of district solid waste management plans.

In 1977, the Solid Waste Management Act was amended to require that counties include wastewater treatment sludge as an additional waste type to be considered in the district solid waste planning process. The Legislature found that the "efficient and reasonable management of

solid waste and sludge are inherently compatible; that the recycling of solid waste and the processing of sludge into energy, fertilizers and other useful products are complementary ... and that the interests of the State would best be served through an integration of sludge management with the regional solid waste planning and management process." N.J.S.A. 13:1E-43.

In 1987, the Legislature again amended the Act by way of adoption of the Mandatory Source Separation and Recycling Act ("Mandatory Recycling Act"). The Legislature declared that it was in the public interest to require that marketable waste materials be source separated and returned to the economic mainstream in the form of raw material or products rather than be disposed of in the State's overburdened landfills. Furthermore, recycling by every municipality would demonstrate the State's commitment to an effective and coherent solid waste management strategy. The Recycling Act directed each county to prepare a recycling plan as an amendment to its solid waste management plan to: 1) designate the materials to be source separated in every municipality, 2) set forth a strategy for collection and marketing of designated recyclables by each municipality; and 3) establish recovery targets. N.J.S.A. 13:1E-99.13.

The Burlington County Board of Chosen Freeholders first adopted its District Solid Waste Management Plan (County Plan) in 1979 and adopted major modifications to the Plan in 1980, 1982 and 1986. The 1986 Amendments to the Plan incorporated the District Sludge and Septage Management Plan as required by the 1977 amendments to the Act and the District Recycling Plan in anticipation of the adoption of the Mandatory Recycling Act.

Over time, it has been necessary to amend the County Plan in response to subsequent directives from the Legislature, to site or include proposed solid waste facilities and to establish or modify policies and procedures regarding solid waste management. A chronological list of the Amendments to the Burlington County District Solid Waste Management Plan is included in Appendix A.

The Statewide Solid Waste Management Plan was first adopted in 1982 and last updated in 1993. On January 3, 2006, DEP adopted the Updated Statewide Solid Waste Management Plan. In view of significant changes in law and regulation which have occurred over the past

decade, declines in recycling rates, and federal and state court rulings, most notably the invalidation by the United States Supreme Court of waste flow control, DEP believes that reconsideration of the district plans and the solid waste management strategies set forth therein is warranted¹. Accordingly, DEP has directed all counties to adopt updated solid waste management plans consistent with the provisions of the Updated State Plan.

This Plan has been prepared in response to this directive. The County has reviewed the 1979 Plan and all approved amendments and has brought forward into this plan all material portions of those documents. This Plan also includes the required evaluation of the solid waste management strategy now in place and sets forth the strategy that will guide the management of solid waste in the County of Burlington for the next ten years.

¹ It should be noted that subsequent to adoption of the State Plan Update, the Recycling Enhancement Act was signed by Governor Corzine on January 14, 2008. This Act levies a \$3 per ton tax on all solid waste generated and eliminates the Solid Waste Services Tax of \$1.65 per ton imposed on solid waste delivered to in-state landfills. In addition, the US Supreme Court has upheld the right of county governments to direct waste to publicly owned facilities in *United Haulers Association, Inc. v. Oneida-Herkimer Solid Waste Management Authority*.

II. DEFINITIONS

Act or SWMA – the Solid Waste Management Act, N.J.S.A. 13:1E-1 et seq., as amended and supplemented.

Aerobic composting - A biological process whereby putrescible and other biodegradable organic waste is decomposed by bacteria in an environment enriched with atmospheric oxygen (aerobic conditions), accomplished by turning the material and/or forcing air through the material with blowers and piping. The process produces heat, carbon dioxide and ammonia gases, water, and a solid humic material, commonly known as compost which is widely utilized as a soil amendment to add organic matter. The heat is of a low grade nature, dispersed, and not suitable for energy recovery purposes. Likewise the carbon dioxide is dispersed and unsuitable for capture and reuse.

Aluminum can - empty food and beverage containers comprised of aluminum. Excluded from this definition are aluminum aerosol cans, aluminum foil and trays.

Anaerobic digestion - A complex biological process whereby putrescible and other biodegradable materials are broken down by bacteria in an environment which contains no atmospheric oxygen (anaerobic conditions). The process produces a gaseous product, commonly known as “biogas”, which consists of approximately 60% methane, 40% carbon dioxide and trace amounts of water vapor, hydrogen sulfide, reduced organic compounds which contain sulfur, such as mercaptans, ammonia, and siloxanes. A solids/liquor product known as “digestate” is also produced. The biogas can be utilized as a source of renewable energy when it is combusted for the production of heat, electricity, or both (co-generation). The biogas can also be processed to remove the trace contaminants, allowing the methane and carbon dioxide molecules to be separated. The separated methane, known as “biomethane”, can be utilized as a renewable transportation fuel in natural gas vehicles. The carbon dioxide can be utilized as renewable industrial or food grade chemical. Anaerobic digestion naturally occurs in decomposing mud in marshes and in sanitary landfills. The process can be employed as a waste treatment technology in air tight vessels or bioreactor landfills which can be controlled to optimize biogas production and waste volume reduction.

Antifreeze - liquid used in a cooling system that is mixed with water and prevents the water from freezing. The solution serves as the engine coolant.

Beneficial use – the use or reuse of a material, which would otherwise become solid waste such as use as landfill cover, aggregate substitute, fuel substitute, fill material or the use or reuse in a manufacturing process to make a product or as an effective substitute for a commercial product. Beneficial use of a material does not constitute recycling or disposal of that material.

Biodegradable plastic – plastic products that are designed to biodegrade and compost and which meet the specifications of the American Society for Testing and Materials

document – ASTM D 6400-99 – entitled “Standard Specifications for Compostable Plastics,” incorporated herein by reference.

Bioreactor landfill - A landfill designed specifically to allow water and other liquids to be introduced into, and circulated throughout, the waste mass in a controlled manner in order to accelerate and enhance anaerobic digestion of the putrescible and other biodegradable waste materials.

Brush – branches, woody plants and other like vegetative material. Leaves and grass do not constitute brush.

Bulky waste – large items of solid waste which, because of their size or weight, require handling other than that normally used for municipal waste. Bulky waste includes, but is not limited to, such items as tree trunks, auto bodies, demolition or construction materials, appliances, furniture and drums.

Certified recycling coordinator – a person who shall have completed the requirements of a course of instruction in various aspects of recycling program management, as determined and administered by the Department of Environmental Protection.

Class A recyclable material - source separated, non-putrescible, metal, glass and plastic containers; and paper and corrugated and other cardboard.

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

Class C recyclable material - source separated compostable or anaerobically digestible material such as source separated food waste, biodegradable plastic, and yard trimmings.

Class D recyclable material - used oil, antifreeze, latex paints, thermostats, lamps, oil-based finishes, batteries, mercury containing devices and consumer electronics.

Co-composting facility – a solid waste facility which utilizes a controlled aerobic biological process of degrading mixtures of biodegradable nonhazardous solid waste and sewage sludge to produce a marketable compost product.

Commingled – a combining of source separated recyclable materials for the purpose of recycling.

Complex – the Burlington County Resource Recovery Complex.

Compostable – able to undergo a physical, chemical, and biological degradation under aerobic conditions such that the material to be composted enters into and is physically indistinguishable from the finished compost (humus), and which ultimately mineralizes, (biodegrades to carbon dioxide, water and biomass) in the environment at a rate like that of known compostable materials such as paper and yard trimmings.

Composting – the controlled biological degradation of organic matter to make compost.

Composting facility - a solid waste facility which utilizes a controlled biological process of degrading nonhazardous solid waste. Also a reference to the Burlington County Co-composting Facility.

Conditionally exempt small quantity generators (CESQG) - non-residential generators that generate 100 kilograms (200 lbs.) or less per month of hazardous waste, or 1 kilogram or less per month of acutely hazardous waste.

Construction and demolition waste – waste building materials and rubble resulting from construction, remodeling, repair, and demolition operations on houses, commercial buildings, pavements and other structures. The following materials may be found in construction and demolition waste: treated and untreated wood scrap; tree parts, tree stumps and brush; concrete, asphalt, bricks, blocks and other masonry; plaster and wallboard; roofing materials; corrugated cardboard and miscellaneous paper; ferrous and non-ferrous metal; non-asbestos building insulation; plastic scrap; dirt; carpets and padding; glass (window and door); and other miscellaneous materials; but shall not include other waste types.

Consumer electronics – computer equipment, including desktop and laptop computers and related components, including, monitors, circuit boards, terminals, and CPU's, and peripheral equipment including keyboards, printers, copiers, and fax machines. It shall also include VCRs, CD players, DVD players, and cellular phones. For the purposes of this Plan, it shall not include televisions, until such time as set forth in Section X.D.

Contaminant – solid waste which adheres to, or which is otherwise contained on or in, source separated recyclable materials.

Convenience center – a site where one or more containers are located for temporary storage of solid waste and/or recyclable materials brought to the site by persons transporting only their own household solid waste/or recyclable materials in passenger automobiles or pickup trucks bearing general registration plates.

Conversion technologies - An array of new and emerging technologies capable of converting municipal solid waste, or fractions thereof, into renewable transportation fuels, energy, and chemical feed stocks for industry. These technologies are generally classified into three categories: 1) thermal, such as pyrolysis and gasification; 2) chemical, such as hydrolysis/fermentation; and 3) biological, such as anaerobic digestion.

Corrugated and other cardboard - all corrugated cardboard normally used for packing, mailing, shipping or containerizing goods, merchandise or other material, but excluding plastic, foam or wax-coated or soiled corrugated cardboard.

County – the Burlington County Board of Chosen Freeholders, and its successors and assigns, acting through the Burlington County Division of Solid Waste Management.

Covered electronic device - a desktop or personal computer, computer monitor, portable computer or television sold to a consumer. A “covered electronic device” shall not include any of the following: (1) an electronic device that is a part of a motor vehicle or any component part of a motor vehicle assembled by, or for, a vehicle manufacturer or franchised dealer, including replacement parts for use in a motor vehicle; (2) an electronic device that is functionally or physically a part of a larger piece of equipment designed and intended for use in an industrial, commercial or medical setting, including diagnostic, monitoring or control equipment; (3) an electronic device that is contained within a clothes washer, clothes dryer, refrigerator, refrigerator and freezer, microwave oven, conventional oven or range, dishwasher, room air conditioner, dehumidifier or air purifier; or (4) a telephone of any type unless it contains a video display area greater than four inches measured diagonally.

De minimis – Less than 1% by volume.

DEP or Department – the New Jersey Department of Environmental Protection.

District – the Burlington County Solid Waste Management District.

EPA or USEPA – the United States Environmental Protection Agency.

Existing solid waste facility – that portion of an active solid waste facility which, as of the effective date of this Plan, is in operation, possesses a valid approved registration from the Department and has been included in the District Solid Waste Management Plan as an existing facility.

Expansion – the process of increasing the design and/or permitted capacity, areal or structural dimensions, vertical elevations or the slopes beyond the approved limits of the solid waste facility.

Fiber - all newspaper, fine paper, bond paper, office paper, magazines, paperback books, school paper, catalogs, computer paper, telephone books, chipboard, corrugated and other cardboard and similar cellulosic material whether shredded or whole, but excluding wax paper, plastic or foil-coated paper, thermal fax paper, carbon paper, blueprint paper, food contaminated paper, soiled paper and cardboard.

Fluorescent lights - a lighting system which works by creating electric arcs inside a gas rich tube to produce ultraviolet light, then converting this to visible fluorescent light by its passage through a layer of phosphor on the inside of the glass.

Generator - any person(s) who causes solid waste to be produced for any purpose whatsoever.

Glass - all clear (flint), green, and brown (amber) colored glass containers. Glass shall not include crystal, ceramics, light bulbs and plate, window, laminated, wired or mirrored glass.

Household hazardous waste – leftover household products that contain corrosive, toxic, ignitable, or reactive ingredients. These include products such as paints, cleaners, oils, batteries, and pesticides that contain potentially hazardous ingredients and require special care during disposal.

Institution - any entity, either public or private, either for profit or nonprofit, who operates for educational, charitable or other public purpose.

Intermodal container facility – a facility where containerized solid waste is transferred from one mode of transportation, such as trucks, rail cars, ships and barges, to another, or from one vehicle to another within one mode of transportation.

Leachate – liquid that has been in contact with solid waste.

Lead acid battery – storage batteries with lead electrodes and that contain dilute sulfuric acid as the electrolyte. These include starting batteries, such as vehicle batteries, marine batteries and deep cell batteries used to power vehicles or marine accessories such as trolling motors, winches or lights.

Leaves - vegetative material, typically generated in the autumn, which fall from deciduous trees and are collected for removal from a property.

Materials recovery facility – a transfer station or other authorized solid waste facility at which mixed nonhazardous solid waste, is received for onsite processing and separation utilizing manual or mechanical methods for the purpose of recovering recyclable materials for disposition and recycling prior to the disposal of the residual solid waste at an authorized solid waste facility.

Metal appliances - appliances composed predominantly of metal including stoves, washing machines, dryers, and water heaters. Also included are all freon-containing appliances including air conditioners, freezers, refrigerators and dehumidifiers.

Mil – A unit of length equal to one thousandth (10^{-3}) of an inch (0.0254 millimeter), used to specify the diameter of wire or the thickness of materials sold in sheets.

Mixed rigid plastic (MRP) - hard or rigid, bulky plastic items including plastic lawn furniture, plastic toys and playhouses, plastic buckets, plastic milk crates, plastic waste containers and other similar rigid plastic items. It shall not mean plastic items made from plastic bags, plastic film, hoses, plastic containers that contained hazardous chemicals

and small containers such as yogurt cups and microwave trays, polyvinyl chloride (PVC or #3 Plastic), including vinyl siding or PVC pipe.

Motor oil - liquid oil used for the lubrication of internal combustion engines.

Municipal recycling depot - a site owned and operated by a municipality for the receipt and temporary storage of Class A Recyclable materials delivered by residents, small commercial and non-profit establishments.

Municipal solid waste – residential, commercial and institutional solid waste generated within a community.

Municipal solid waste stream – residential, commercial and institutional waste in the context of the Statewide Solid Waste Management Plan Update which constitutes the waste stream used to calculate the State mandated 50% recycling rate. Includes waste types 10 and 23.

New solid waste facility – any solid waste facility or portion thereof which does not qualify as an existing solid waste facility.

Paper - all newspaper, fine paper, bond paper, office paper, magazines, paperback books, school paper, catalogs, computer paper, telephone books and similar cellulosic material whether shredded or whole, but excluding tissue and towel paper, wax paper, plastic or foil-coated paper, thermal fax paper, carbon paper, NCR paper, blueprint paper, food contaminated or soiled paper.

Permit – the approval issued by the Department to construct and operate a solid waste facility and means the approved registration statement and engineering design approval described in the Solid Waste Management Act.

Person - any individual, firm, partnership, corporation, association, cooperative enterprise, trust, municipal authority, federal institution or agency, state institution or agency, municipality, other governmental agency of any other entity or any group of such persons, which is recognized by law as the subject of rights and duties.

Plastic bottles - all bottles that are labeled as made from polyethylene terephthalate (PET) and coded as #1 and high-density polyethylene terephthalate (HDPE) and coded as #2. Specifically excluded are bottles that formerly contained hazardous materials, including, but not limited to paint, solvents, motor oil and pesticides and herbicides.

Plastic container – any formed or molded plastic bottle, tub, tray, or other container less than five gallons in capacity, commonly used for the packaging of food, beverages and common household products.

Publicly-owned treatment works or “POTW” – any device or system used in the treatment (including recycling and reclamation) of municipal sewage or industrial wastes of a liquid

nature which is owned by the State, a municipality or a public authority. This definition includes sewers, pipes, or other conveyances only if they convey wastewater to a POTW providing treatment.

Putrescible waste – organic material which is capable of, and prone to, a rapid process of biological and biochemical decomposition, under anaerobic or aerobic conditions, resulting in the formation of malodorous byproducts.

Qualified private community - a residential condominium, cooperative or fee simple community or horizontal property regime, the residents of which do not receive any tax abatement or tax exemption related to its construction comprised of a community trust or other trust device, condominium association, home owners association or council of co-owners, wherein the cost of maintaining roads and streets and providing essential services is paid for by a not-for profit entity consisting exclusively of unit owners within the community.

Rechargeable batteries - batteries used in portable electronic devices composed of Nickel Cadmium (Ni-Cd), Nickel Metal Hydride (Ni-MH), Lithium Ion (Li-ion) and Small Sealed Lead (Pb).

Recyclable materials – materials that would otherwise become solid waste which can be separated, collected and/or processed and returned to the economic mainstream in the form of raw materials or products.

Recycling center – a facility designed and operated solely for receiving, storing, processing or transferring source separated recyclable material (Class A, Class B, Class C and/or Class D recyclable materials).

Recycling depot - a facility designed and operated for receiving, temporarily storing, for a period not exceeding two months, Class A recyclable materials and/or non-container plastic materials prior to their transport to a recycling center or end-market.

Residual – a solid waste that consists of the accumulated solids and associated liquids which are bi-products of a physical, chemical, biological, or mechanical process or any other process designed to treat wastewater or any other discharges subject to regulation under the State Act.

Resource recovery facility – any place, equipment, device or plant designed and/or operated to separate or process solid or liquid waste into usable secondary materials, including fuel and energy.

Sanitary landfill – a solid waste facility, at which solid waste is deposited on or into the land as fill for the purpose of permanent disposal or storage for a period of time exceeding six months, except that it shall not include any waste facility approved for disposal of hazardous waste.

Scrap metal – bits and pieces of metal parts (for example, bars, turnings, rods, sheets, wire) or metal pieces which may be combined together with bolts or soldering (for example, radiators, scrap automobiles, railroad box cars) which when worn or superfluous, can be recycled. Included are all ferrous and non-ferrous metals including appliances and appliances containing refrigerants.

Septage – the liquid and solid material pumped from a septic tank, cesspool, or similar domestic treatment system, or a holding tank when the system is cleaned or maintained..

Sewage sludge – the solid, semi-solid, or liquid residue generated by the processes of a domestic treatment works. Sewage sludge includes, but is not limited to, domestic septage; scum or solids removed in primary, secondary, or advanced wastewater treatment processes; and any material derived from sewage sludge. Sewage sludge does not include ash generated during the firing of sewage sludge in a sewage sludge incinerator or grit and screenings generated during preliminary treatment of domestic sewage in a treatment works.

Sludge – the solid residue and associated liquid resulting from the physical, chemical or biological treatment of domestic or industrial wastewaters, N.J.A.C. 7:14A.

Solid waste – garbage, refuse and other discarded materials, as defined in N.J.S.A. 13:1E-1, et seq. and N.J.S.A. 48:13A-1, et seq.

Solid Waste Advisory Council or SWAC – an advisory body to the board of chosen freeholders that assists in the development and formulation of the district solid waste management plan. A Solid Waste Advisory Council shall include municipal mayors or their designees, persons engaged in the collection or disposal of solid waste and environmentalists.

Solid waste facility – any system, site, equipment or building which is utilized for the storage, collection, processing, transfer, transportation, separation, recycling, recovering or disposal of solid waste but shall not include a recycling center, a regulated medical waste collection facility authorized pursuant to N.J.A.C. 7:26-3A.39, or an intermodal container facility authorized by the Department pursuant to N.J.A.C. 7:26-3.6.

Source separated – recyclable materials separated from the solid waste stream at the point of generation.

Steel can - empty food, beverage and aerosol containers comprised of tin, steel or a combination thereof, which formerly contained only non-hazardous substances or such other substances as have been approved for recycling by Division of Solid Waste.

Television - an electronic apparatus that receives electromagnetic waves and displays the reconverted images on a screen including both the audible and visible content of the electromagnetic spectrum.

Textiles - artifacts made by weaving, felting, knitting or crocheting natural or synthetic fibers.

Tires - rubber wheels used on motorized transport or equipment whether bias – ply, cross-ply or radial.

Transfer station – a solid waste facility at which solid waste is transferred from one solid waste vehicle to another solid waste vehicle, including a rail car, for transportation to an off-site solid waste facility.

Type 10 municipal solid waste – waste originating in the community consisting of household waste from private residences, commercial waste which originates in wholesale, retail or service establishments such as, restaurants, stores, markets, theatres, hotels and warehouses, and institutional waste material originated in schools, hospitals, research institutions and public buildings.

Type 12 dry sewage sludge – sludge from a sewage treatment plant which has been digested and dewatered and does not require liquid handling equipment.

Type 13 bulky waste – large items of waste material, such as appliances and furniture. Discarded automobiles, boats, trucks and trailers and large vehicle parts, and tires are included under this category.

Type 13C construction and demolition waste – waste building material and rubble resulting from construction, remodeling, repair and demolition operations on houses, commercial buildings, pavements and other structures. The following materials may be found in construction and demolition waste: treated and untreated wood scrap; tree parts, tree stumps and brush; concrete, asphalt, bricks, blocks and other masonry; plaster and wallboard; roofing materials; corrugated cardboard and miscellaneous paper; ferrous and non-ferrous metal; non-asbestos building insulation; plastic scrap; dirt; carpets and padding; glass (window and door); and other miscellaneous materials; but shall not include other solid waste types.

Type 23 vegetative waste – waste materials from farms, plant nurseries and greenhouses that are produced from the raising of plants. This waste includes such crop residues as plant stalks, hulls, leaves and tree wastes processed through a wood chipper. Also included are non-crop residues such as leaves, grass clippings, tree parts, shrubbery and garden wastes.

Type 25 animal and food processing wastes – processing waste materials generated in canneries, slaughterhouses, packing plants or similar industries, including animal manure when intended for disposal and not reuse. Also included are dead animals. Animal manure, when intended for reuse, anaerobic digestion or composting, is to be managed in accordance with the criteria and standards developed by the Department of Agriculture as set forth at N.J.S.A. 4:9-38.

Type 27 dry industrial waste – waste materials resulting from manufacturing, industrial and research and development processes and operations, and which are not hazardous in accordance with the standards and procedures set forth at N.J.A.C 7:26G. Also included are non-hazardous oil spill cleanup waste, dry non-hazardous pesticides, dry non-hazardous chemical waste, and residue from the operations of a scrap metal shredding facility.

Type 27A waste – waste material consisting of asbestos or asbestos containing waste.

Type 27I waste – waste material consisting of incinerator ash or ash containing waste.

Used oil - any oil that has been refined from crude oil, or any synthetic oil that has been used, and as a result of such use, storage or handling is contaminated by physical or chemical impurities.

Yard trimmings – grass clippings, leaves, tree parts and brush.

III. SOLID WASTE AND SLUDGE GENERATION PROJECTIONS

A. Solid Waste

1. Current and Projected Generation Rates

Annual solid waste generation, disposal and recycling rates for Burlington County for the ten year planning period 1996 through 2006 are shown in Table 3-1 and depicted graphically in Table 3-2. The increases in waste generation over this 10 year period are attributed to population growth, strong economic conditions and increases in product packaging. The average annual increase in waste generation of 3% experienced in Burlington County is the same as the State average over the same period.

To project increases in waste generation for the next ten years, the County has assumed the same rate of increase as the past ten years. The actual amount of solid waste generated in 2006 has been increased by 3% per year through the year 2017 and the results are shown in Table 3-3. In a review of past projections, which were based upon per capita generation rates and population projections, this methodology appears to be most accurate.

2. Composition

The constituents that make up the typical municipal solid waste stream are presented in Table 3-4. This information is based on data compiled and analyzed over a forty year span by Franklin Associates on behalf of EPA. The 1998 and 1999 “Franklin Associates Report on Characterization of Municipal Solid Waste in the United States” was relied upon by DEP in the development of the material specific recycling rates included in the 2006 Updated Statewide Solid Waste Management Plan. DEP also utilized data provided by the Institute of Scrap Recycling Industries and the Auto and Metal Recyclers Association and modified certain percentages to better reflect New Jersey’s waste stream composition.

3. Waste Generation and Disposal Trends

Table 3-5 shows total waste generation in the County and the amounts disposed of at the County’s solid waste disposal facility versus out-of-county disposal facilities. As noted above, total waste generation has remained relatively consistent, showing

an average increase of 3% per year. There is a distinctive downward trend in the volume of waste delivered to the County facility since the invalidation of waste flow control. A significant amount of commercial solid waste has left the County's system and continues to be disposed of at out-of-county facilities. The facilities accepting the majority of this waste are: 1) the Camden County Resource Recovery Facility located in the City of Camden; 2) Covanta Resource Recovery Facility located in Chester, PA; 3) the Modern Landfill located in York, PA; and 4) the Hainesport Industrial Railroad, LLC that transports waste to Ohio. In 2007, at least 33% of the total tonnage of solid waste generated in Burlington County was transported out-of-county for disposal.

B. Sludge

1. Current and Projected Generation Rates

There are currently 24 publicly owned and 17 privately owned wastewater treatment plants in operation in Burlington County. Table 3-6 lists the wastewater treatment facilities, locations, NJPDES permit numbers, design flows and actual flows for the five year period, 2002 through 2006, as reported to the Department. Actual annual flows have remained relatively constant over the five year period, and for the most part, are well below design flows.

Sludge production as reported to DEP by the wastewater treatment facilities during the period 2002 through 2006 is depicted in Table 3-7. Data shows a peak production of 12,415 dry metric tons in 2004 with a decline in production in 2005 and 2006. Over the five year period, the data demonstrates an average decrease in sludge production of 2% per year. Analysis of the data shows that four publicly owned treatment works (POTWs) account for the decline in production, each having experienced a decrease of 20% or greater in 2006 as compared to 2005. Two of these facilities reported that operational problems caused declines in sludge production and are expecting production to return to higher levels in 2008. Two facilities reported that decreased sludge production was due to elimination of certain high strength wastewater flows and are not expecting production to increase to higher

levels. Discounting 2006, annual sludge production over the four year period has increased an average of 1%.

Sludge quantities accepted at the County's Co-composting Facility from in-county generators for the period of 2002 through 2006 is presented in Table 3-8. These generators account for 88% of the total sludge production in the County. This data shows an annual average increase in production of 2% over the same five year period.

A telephone survey of sludge generators was conducted to determine if long term plans for plant improvements or expansions would be expected to affect sludge production. This survey found that half of the generators expected production to remain the same due to limited development potential within their service area, five expected a slight increase in sludge production due to planned or potential development and one expected a decrease in production due to the loss of a major commercial customer and two generators anticipate significant increases in sludge production. Mount Holly Municipal Utilities Authority is constructing a new plant that will increase permitted wastewater flows by one million gallons per day and the U.S. Army at Fort Dix is expecting flows to increase as a result of the consolidation of McGuire Air Force Base, Lakehurst Naval Air Engineering Station and Fort Dix.

Projected sludge generation rates for the period 2007 to 2017 are shown in Table 3-9. The County believes that a 2% increase per year in total generation is the most accurate prediction of future sludge production based upon delivery trends at the composting facility and telephone survey results. Given the anomaly in sludge production in 2006 described above, projection rates have been calculated using the 2005 sludge generation rate of 12,151 dry metric tons and increasing it by 2% per year through the year 2017.

2. Quality

Sludge quality is a measure of the solids content and concentrations of chemical and biological constituents of sludge, such as metals, pesticides and organic chemicals. Quality is an important determinant of a sludge management strategy. In 40 CFR

Part 503, EPA has established pollutant limits, management practices and operational standards for the final use or disposal of sewage sludge generated during the treatment of domestic sewage in a treatment works.

Sludge quality is widely variable and depends upon numerous factors, such as the type and degree of wastewater treatment and sludge processing and the quantity and composition of wastes received by a facility. Sludge is tested by each generator in accordance with the requirements of the New Jersey Sludge Quality Assurance Regulations (SQAR), N.J.A.C. 7:14C. All generators are required to maintain a sewage sludge quality compatible with their method of sewage sludge management and to report those instances where applicable sewage sludge quality criteria are exceeded, as outlined in SQAR. Compliance with standards is determined by the quality of the sewage sludge or marketable residual product at the end of the sewage sludge treatment process, not the inflow to that process. However, it is the responsibility of both the sewage sludge generator and management facility to assure that all sewage sludge sent or accepted for processing is compatible with the sewage sludge quality limitations imposed on the management facility.

Sludge quality data for 2004 through 2007 was obtained for each individual treatment plant from the SQAR data on file at DEP is tabulated and presented in Table 3-10.

3. Sludge Generation and Disposal Trends

Sludge generated at 15 of the 24 POTWs is currently being transported to the Burlington County Co-composting Facility (Composting Facility) for management. All but one of the nine remaining POTWs transport liquid sludge to the Mount Holly Municipal Utilities Authority (MHMUA) for treatment. Since MHMUA utilizes either the Composting Facility or the Atlantic County Utilities Authority (ACUA) incinerator for sludge disposal, a portion of the sludge generated at these POTWs is managed at the Composting Facility. Pemberton Township Municipal Utilities Authority land applies liquid sludge at a site it owns and manages.

With respect to the privately owned wastewater treatment plants operating in the County, 10 of these plants transport liquid sludge to MHMUA for treatment, two have not reported any sludge produced over the five year period, four utilize sludge disposal facilities outside of the County (Stony Brook Regional Sewerage Authority, Gloucester County Utilities Authority and Spectraserv) and two utilize reed beds for sludge disposal.

TABLE 3-1
ANNUAL TRENDS IN SOLID WASTE GENERATION AND DISPOSAL
IN BURLINGTON COUNTY
1996 - 2006

| YEAR | GENERATION | | DISPOSAL | | | | % of total tons generated |
|-------|------------|----------|------------|------------|--|-------|---------------------------|
| | Total tons | MSW tons | Bulky tons | Total tons | | | |
| 1996 | 879,129 | 286,380 | 109,447 | 395,827 | | 45.0% | |
| 1997 | 914,006 | 286,410 | 110,149 | 396,559 | | 43.4% | |
| 1998 | 668,660 | 249,547 | 95,932 | 345,479 | | 51.7% | |
| 1999 | 802,034 | 290,923 | 110,971 | 401,894 | | 50.1% | |
| 2000 | 772,903 | 309,366 | 118,125 | 427,491 | | 55.3% | |
| 2001 | 989,603 | 317,484 | 118,168 | 435,652 | | 44.0% | |
| 2002 | 1,049,940 | 322,076 | 118,859 | 440,935 | | 42.0% | |
| 2003 | 1,013,407 | 343,555 | 127,124 | 470,679 | | 46.4% | |
| 2004 | 1,058,320 | 363,707 | 134,580 | 498,287 | | 47.1% | |
| 2005 | 1,046,913 | 385,473 | 117,827 | 503,300 | | 48.1% | |
| 2006* | 1,108,508 | 383,503 | 119,014 | 502,517 | | 45.3% | |

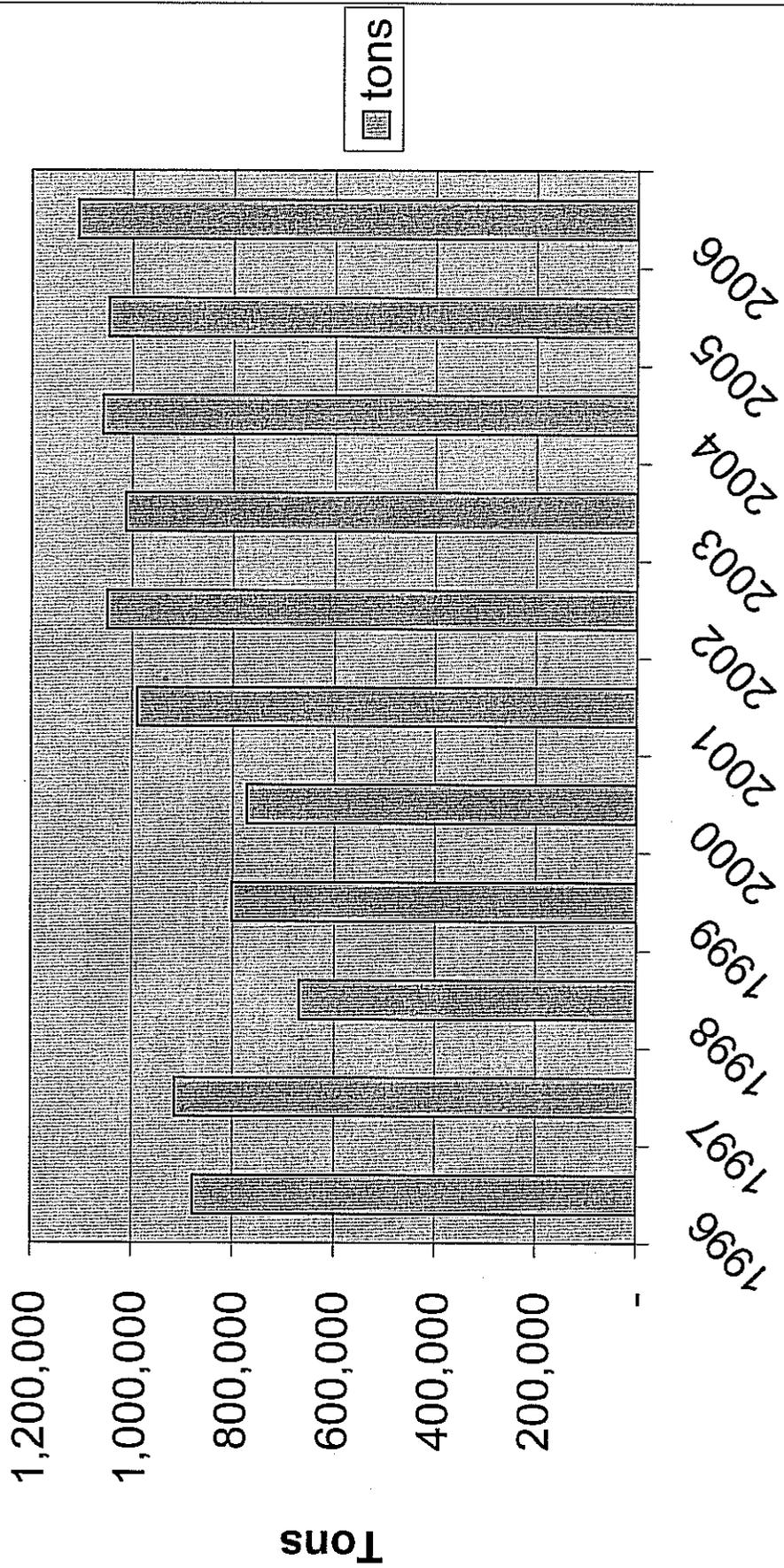
Note:

MSW tons = Waste types 10 + 23.

Bulky tons = Waste types 13 + 13c + 25 + 27.

Source of data: New Jersey Generation, Disposal and Recycling Statistics, NJDEP, *except 2006 which was provided by Burlington County scale receipts.

**Table 3-2
Solid Waste Generation in Burlington County**



Source of data: NJDEP, New Jersey Generation, Disposal and Recycling Statistics.

**TABLE 3-3
TEN YEAR SOLID WASTE GENERATION PROJECTIONS
2007 - 2017**

| YEAR | PROJECTED** SOLID WASTE GENERATION (tons) |
|-------|--|
| 2006* | 1,108,508 |
| 2007 | 1,141,763 |
| 2008 | 1,176,016 |
| 2009 | 1,211,297 |
| 2010 | 1,247,636 |
| 2011 | 1,285,065 |
| 2012 | 1,323,617 |
| 2013 | 1,363,325 |
| 2014 | 1,404,225 |
| 2015 | 1,446,352 |
| 2016 | 1,489,742 |
| 2017 | 1,534,434 |

*Actual tons of solid waste generated in 2006.

**Projections are based on the historical total waste generation increased by 3% per year.

Source of data: NJDEP, New Jersey Generation, Disposal and Recycling Statistics.

TABLE 3-4 WASTE COMPOSTION IN NEW JERSEY

| Material | Percent of Waste Stream |
|------------------------------------|--|
| Concrete / Asphalt / Brick / Block | 18.80% |
| Other Bulky & Contruccion Demo | 10.80% |
| Yard Waste | 10.00% |
| Other Paper/Mag/JunkMail | 9.10% |
| Other Municipal & Vegetative | 8.30% |
| Food Waste | 7.40% |
| Corrugated | 6.00% |
| Other Plastic (packages/scrap) | 4.80% |
| Heavy Iron | 4.50% |
| Newspaper | 4.20% |
| Wood Scraps | 3.30% |
| Glass Containers | 2.50% |
| White Goods & Light Iron | 2.40% |
| Mixed Office Paper | 2.30% |
| Automobile Scrap | 2.00% |
| NonFerrous/Aluminum Scrap | 1.20% |
| Plastic Containers | 0.90% |
| Steel Containers* | 0.50% |
| Other Glass | 0.40% |
| Aluminum Containers | 0.30% |
| Tires | 0.20% |
| Batteries (Automobile) | 0.10% |
| Total | 100.00% |

* Listed in the State Plan as tin and bi-metal cans.

Source of data: 2006 Statewide Solid Waste Management Plan.

TABLE 3-5
Trends in Solid Waste Disposal
In-County versus Out-of-County
1998 - 2007

| Year | Total Solid Waste Disposed | Solid Waste Disposed at Burlington County Landfill | Solid Waste Transported out of County | % of Total Waste Exported |
|------|----------------------------|--|---------------------------------------|---------------------------|
| 1998 | 345,479 | 309,444 | 36,035 | 10% |
| 1999 | 401,894 | 305,787 | 96,107 | 24% |
| 2000 | 427,491 | 326,051 | 101,440 | 24% |
| 2001 | 435,652 | 366,140 | 70,512 | 16% |
| 2002 | 440,935 | 331,753 | 109,182 | 25% |
| 2003 | 470,679 | 375,999 | 94,680 | 20% |
| 2004 | 498,287 | 392,182 | 106,105 | 21% |
| 2005 | 503,300 | 395,536 | 107,764 | 21% |
| 2006 | 502,517 | 338,434 | 170,854 | 34% |
| 2007 | 463,701 | 310,310 | 153,391 | 33% |

TABLE 3-6
WASTEWATER TREATMENT FACILITIES AND FLOWS
2002 - 2006

| Location | Facility Name | NJPDES | Design Flow (mgd) | 2002 Flow (mgd) | 2003 Flow (mgd) | 2004 Flow (mgd) | 2005 Flow (mgd) | 2006 Flow (mgd) |
|------------------------|--|---------|-------------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| Publicly Owned | | | | | | | | |
| Beverly City | Beverly Sewerage Authority | 0027481 | 1.00 | 0.4300 | 0.4300 | 0.4292 | 0.4300 | 0.4300 |
| Bordentown City | Bordentown Sewerage Authority | 0024678 | 3.00 | 1.9000 | 1.9000 | 1.9000 | 1.9000 | 1.9000 |
| Burlington City | Common Council Burlington City | 0024660 | 2.70 | 2.2000 | 2.2000 | 2.1970 | 2.2000 | 2.2000 |
| Burlington Township | Central Avenue Sewerage Treatment Plant | 0021709 | 3.65 | 1.2000 | 2.1900 | 2.1900 | 2.1900 | 2.1900 |
| Cinnaminson Township | Cinnaminson Sewerage Authority | 0024007 | 2.00 | 1.2900 | 1.2900 | 1.2940 | 1.2900 | 1.2900 |
| Delran Township | Delran Sewerage Authority | 0023507 | 2.50 | 1.3900 | 1.3900 | 2.0000 | 2.0000 | 2.0000 |
| Evesham Township | Elmwood Sewerage Treatment Plant | 0024031 | 2.98 | 1.7500 | 1.7500 | 1.7500 | 1.7500 | 1.7500 |
| Evesham Township | Woodstream Sewerage Treatment Plant | 0024040 | 1.70 | 1.0300 | 1.0300 | 1.0250 | 1.0300 | 1.0300 |
| Evesham Township | Kings Grant Sewerage Treatment Plant | 0029203 | 0.60 | 0.1000 | 0.1000 | 0.0980 | 0.1000 | 0.1000 |
| Fieldsboro Boro | Fieldsboro Sewerage Treatment Plant | 0031810 | 0.10 | 0.0500 | 0.0500 | 0.0470 | 0.0500 | 0.0500 |
| Florence Township | Florence Township Sewerage Treatment Plant | 0023701 | 2.50 | 0.8600 | 0.8600 | 0.8620 | 0.8600 | 0.8600 |
| Maple Shade Township | Maple Shade Sewerage Treatment Plant | 0069167 | 3.40 | 2.6400 | 2.6400 | 2.6400 | 2.7700 | 2.6400 |
| Medford Lakes Boro | Boro of Medford Lakes Sewerage Treatment Plant | 0021326 | 0.55 | 0.3800 | 0.3800 | 0.3776 | 0.3800 | 0.3800 |
| Medford Township | Medford Water Pollution Control P | 0026832 | 1.75 | 1.3000 | 1.3000 | 1.3000 | 1.3000 | 1.3000 |
| Moorestown Township | Moorestown Township Sewerage Treatment Plant | 0024996 | 3.88 | 2.3700 | 2.3700 | 2.3700 | 2.3700 | 2.3700 |
| Mount Holly Township | Mount Holly Municipal Utilities Authority | 0024015 | 7.68 | 3.5500 | 3.5500 | 3.5500 | 3.5500 | 3.5500 |
| Mount Laurel Township | Mount Laurel Municipal Utilities Authority | 0025178 | 6.00 | 3.3000 | 3.3000 | 3.3000 | 3.3000 | 3.3000 |
| Palmyra Boro | Palmyra Sewerage Treatment Plant | 0024449 | 0.79 | 0.6700 | 0.6700 | 0.6700 | 0.6700 | 0.6700 |
| Pemberton Township | Pemberton Township Municipal Utilities Authority | 0138827 | 2.50 | 1.7600 | 1.7600 | 1.7560 | 1.7600 | 1.7600 |
| Pemberton Township | US Army Fort Dix/McGuire Air Force Base | 0074284 | 4.60 | 3.0300 | 3.0300 | 3.0300 | 3.0300 | 3.0300 |
| Riverside Township | Riverside Sewerage Treatment Plant | 0022519 | 1.00 | 0.8300 | 0.8300 | 0.8308 | 0.8300 | 0.8300 |
| Riverton Boro | Riverton | 0021610 | 0.22 | 0.1600 | 0.1600 | 0.1580 | 0.1600 | 0.1600 |
| Willingboro Township | Willingboro Municipal Utilities Authority | 0023361 | 5.22 | 4.6000 | 4.6000 | 4.6000 | 4.6000 | 4.6000 |
| Wrightstown Boro | Wrightstown Municipal Utilities Authority | 0022985 | 0.20 | 0.1300 | 0.1300 | 0.1300 | 0.1300 | 0.1300 |
| Privately Owned | | | | | | | | |
| Bordentown Township | A.C. Wagner Youth Correctional Institution | 0026719 | 0.77 | 0.4000 | 0.4000 | 0.4000 | 0.4000 | 0.4000 |
| Chesterfield Township | Olde York County Club | 0105392 | 0.01 | - | - | - | - | - |
| Mansfield Township | Homestead Utility Company | 0098663 | 0.25 | 0.2100 | 0.2100 | 0.2130 | 0.2100 | 0.2100 |
| Mansfield Township | National Auto Dealers Exchange | 0105031 | 0.01 | 0.0100 | 0.0100 | 0.0081 | 0.0100 | 0.0100 |
| Mansfield Township | Mansfield Farms | 0108120 | 0.32 | 0.0800 | 0.0800 | 0.0800 | 0.0800 | 0.0800 |
| New Hanover Township | Executive Days Inn | 0065528 | 0.01 | 0.0100 | 0.0100 | 0.0064 | 0.0100 | 0.0100 |
| North Hanover Township | Hanover Mobile Home Park | 0027464 | 0.02 | 0.0100 | 0.0100 | 0.0055 | 0.0100 | 0.0100 |
| North Hanover Township | California Villa Mobile Home Park | 0027511 | 0.03 | 0.0200 | 0.0200 | 0.0156 | 0.0200 | 0.0200 |
| North Hanover Township | Spartan Village Mobile Home Park | 0027596 | 0.04 | 0.0300 | 0.0300 | 0.0310 | 0.0300 | 0.0300 |
| Pemberton Township | Helen Fort Middle School | 0022438 | 0.05 | - | - | 0.0003 | - | - |
| Southampton Township | Mobile Estates of Southampton | 0028665 | 0.06 | 0.0600 | 0.0600 | 0.0600 | 0.0600 | 0.0600 |
| Southampton Township | Pinelands Sewer Company | 0023736 | 0.50 | 0.2900 | 0.2900 | 0.2887 | 0.2900 | 0.3300 |
| Springfield Township | Springfield Township School Sewerage Treatment Plant | 0021571 | 0.01 | - | - | 0.0004 | - | - |
| Tabernacle Township | Tabernacle Township Middle School | 0091294 | 0.03 | 0.0100 | 0.0100 | 0.0050 | 0.0100 | 0.0100 |
| Tabernacle Township | Lenape 4th Regional | 0136239 | 0.03 | - | 0.0100 | 0.0073 | 0.0100 | 0.0100 |
| Vincentown | Upper Elementary | 0076538 | 0.01 | 0.0100 | 0.0100 | 0.0062 | 0.0100 | 0.0100 |
| Woodland Township | New Lisbon State School | 0070955 | 0.20 | 0.1900 | 0.1900 | 0.1864 | 0.1900 | 0.1900 |
| Total | | | 62.87 | 38.25 | 39.25 | 39.82 | 39.99 | 39.90 |

TABLE 3-7
SLUDGE PRODUCTION IN BURLINGTON COUNTY
2002 - 2006

| Location | Facility Name | Dry Metric Tons in 2002 | Dry Metric Tons in 2003 | Dry Metric Tons in 2004 | Dry Metric Tons in 2005 | Dry Metric Tons in 2006 | Sludge Disposal Facility(ies) |
|------------------------|--|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|----------------------------------|
| Publicly Owned | | | | | | | |
| Beverly City | Beverly Sewerage Authority | 74.69 | 79.80 | 93.80 | 87.10 | 68.00 | Reed Beds/Mount Holly |
| Bordentown City | Bordentown Sewerage Authority | 342.72 | 433.22 | 385.20 | 417.50 | 386.70 | Co-composting Facility |
| Burlington City | Common Council Burlington City | 307.24 | 358.90 | 353.00 | 389.40 | 446.00 | Co-composting Facility |
| Burlington Township | Central Avenue Sewerage Treatment Plant | 281.34 | 334.60 | 324.20 | 330.00 | 342.10 | Mount Holly |
| Cinnaminson Township | Cinnaminson Sewerage Authority | 299.90 | 358.40 | 353.30 | 321.40 | 309.80 | Co-composting Facility |
| Delran Township | Delran Sewerage Authority | 442.88 | 328.80 | 213.80 | 146.30 | 223.20 | Co-composting Facility |
| Evesham Township | Elmwood Sewerage Treatment Plant | 821.07 | 867.30 | 867.20 | 810.80 | 834.40 | Co-composting Facility |
| Evesham Township | Woodstream Sewerage Treatment Plant | 183.46 | 193.40 | 187.80 | 197.60 | 201.00 | Co-composting Facility |
| Evesham Township | Kings Grant Sewerage Treatment Plant | 92.20 | 70.30 | 67.00 | 81.40 | 81.20 | Co-composting Facility |
| Fieldsboro Boro | Fieldsboro Sewerage Treatment Plant | 11.77 | 6.30 | 8.90 | 9.60 | 11.70 | Mount Holly |
| Florence Township | Florence Township Sewerage Treatment Plant | 236.15 | 354.40 | 503.50 | 419.20 | 441.50 | Co-composting Facility |
| Maple Shade Township | Maple Shade Sewerage Treatment Plant | 542.50 | 399.50 | 407.80 | 492.10 | 350.50 | Co-composting Facility |
| Medford Lakes Boro | Boro of Medford Lakes Sewerage Treatment Plant | 79.30 | 81.90 | 84.70 | 78.90 | 85.30 | Mount Holly |
| Medford Township | Medford Water Pollution Control P | 285.45 | 296.60 | 296.50 | 340.70 | 340.70 | Mount Holly |
| Moorestown Township | Moorestown Township Sewerage Treatment Plant | 264.20 | 336.50 | 300.20 | 247.50 | 225.10 | Co-composting Facility |
| Mount Holly Township | Mount Holly Municipal Utilities Authority | 2,248.22 | 2,364.20 | 2,447.00 | 2,545.20 | 2,006.20 | Co-composting Facility |
| Mount Laurel Township | Mount Laurel Municipal Utilities Authority | 1,065.90 | 1,044.90 | 1,010.40 | 1,089.60 | 1,095.50 | Co-composting Facility |
| Palmyra Boro | Palmyra Sewerage Treatment Plant | 132.30 | 134.90 | 109.00 | 71.80 | 49.10 | Mount Holly |
| Pemberton Township | Pemberton Township Municipal Utilities Authority | 392.40 | 376.80 | 358.60 | 330.00 | 317.80 | PTMUA Land Application |
| Pemberton Township | US Army Fort Dix/McGuire Air Force Base | 629.02 | 721.40 | 764.90 | 764.90 | 711.10 | Co-composting Facility |
| Riverside Township | Riverside Sewerage Treatment Plant | 74.10 | 79.30 | 73.20 | 77.20 | 60.40 | Co-composting Facility |
| Riverton Boro | Riverton | 40.82 | 52.90 | 51.90 | 52.00 | 43.70 | Mount Holly |
| Willingboro Township | Willingboro Municipal Utilities Authority | 2,369.69 | 2,171.90 | 2,917.70 | 2,640.50 | 1,657.00 | Co-composting Facility |
| Wrightstown Boro | Wrightstown Municipal Utilities Authority | 80.80 | 89.70 | 87.10 | 80.00 | 62.60 | Mount Holly or Stonybrook |
| Privately Owned | | | | | | | |
| Bordentown Township | A.C. Wagner Youth Correctional Institution | 52.69 | - | 46.30 | 21.10 | 74.50 | Spectraserv |
| Chesterfield Township | Olde York County Club | - | - | - | - | - | NODI |
| Mansfield Township | Homestead Utility Company | 352.92 | - | - | - | 104.20 | Mount Holly |
| Mansfield Township | National Auto Dealers Exchange | - | - | - | - | - | NODI |
| Mansfield Township | Mansfield Farms | 33.50 | 30.20 | 25.20 | 42.90 | 26.80 | Stony Brook Regional SA |
| New Hanover Township | Executive Days Inn | 1.60 | 1.30 | 1.20 | 1.10 | 1.50 | Mount Holly |
| North Hanover Township | Hanover Mobile Home Park | 2.42 | 2.70 | 2.70 | 3.90 | 3.80 | Mount Holly |
| North Hanover Township | California Villa Mobile Home Park | 1.20 | 0.90 | 0.50 | 0.60 | 1.30 | Mount Holly/Delcora |
| North Hanover Township | Spartan Village Mobile Home Park | 6.60 | 3.40 | 5.40 | 5.20 | 3.60 | Mount Holly |
| Pemberton Township | Helen Fort Middle School | 1.47 | 0.40 | 0.70 | 0.30 | 0.30 | Mount Holly |
| Southampton Township | Mobile Estates of Southampton | 4.83 | 50.60 | 13.90 | 9.40 | 12.40 | Mount Holly |
| Southampton Township | Pinelands Sewer Company | 36.00 | 43.60 | 44.90 | 44.20 | 84.20 | Tuckahoe Turf Farm (closed)/GCUA |
| Springfield Township | Springfield Township School Sewerage Treatment Plant | 0.20 | 0.20 | 0.20 | 0.40 | 0.10 | Mount Holly |
| Tabernacle Township | Tabernacle Township Middle School | 0.10 | 0.10 | 0.40 | 0.70 | 0.40 | Mount Holly |
| Tabernacle Township | Lenape 4th Regional | - | - | 0.70 | 0.50 | 0.40 | Mount Holly |
| Vincentown | Upper Elementary | 0.30 | 0.30 | 0.20 | 0.20 | 0.10 | Stony Brook Regional SA |
| Woodland Township | New Lisbon State School | 11.30 | 7.50 | 8.50 | 1.90 | 5.70 | New Lisbon Reed Beds |
| Total | | 11,803.25 | 11,677.12 | 12,414.50 | 12,151.50 | 10,669.90 | |

Source of data: NJDEP, Bureau of Pretreatment and Residuals, Existing Sewage Sludge Production by Management Modes.

TABLE 3-8 - IN-COUNTY SLUDGE ACCEPTED AT THE
BURLINGTON COUNTY CO-COMPOSTING FACILITY
2002 - 2006

| YEAR/ GENERATOR | UNITS | 2002 | 2003 | 2004 | 2005 | 2006 | TOTALS |
|--------------------|--------------|-----------|-----------|-----------|-----------|-----------|-----------|
| Bordentown | wet tons | 2,561.88 | 2,913.75 | 2,491.61 | 2,749.53 | 2,801.98 | 13,518.75 |
| | % solids | 14.78% | 16.25% | 16.96% | 16.70% | 15.41% | 16.02% |
| Burlington City | dry tons | 376.89 | 473.57 | 422.57 | 459.24 | 431.73 | 2,164.00 |
| | wet tons | 1,622.40 | 1,656.50 | 1,611.16 | 1,718.87 | 2,116.19 | 8,725.12 |
| | % solids | 24.66% | 23.59% | 23.55% | 23.44% | 23.11% | 23.67% |
| | dry tons | 400.13 | 390.82 | 379.38 | 402.90 | 488.98 | 2,062.21 |
| Cinnaminson | wet tons | 1,193.05 | 1,260.39 | 1,331.98 | 1,209.11 | 1,260.02 | 6,254.55 |
| | % solids | 19.00% | 18.39% | 18.20% | 18.72% | 18.50% | 18.56% |
| | dry tons | 226.74 | 231.84 | 242.37 | 226.40 | 233.14 | 1,160.49 |
| | wet tons | 1,522.21 | 1,467.29 | 1,142.42 | 847.39 | 1,335.88 | 6,315.19 |
| | % solids | 14.81% | 14.48% | 14.98% | 16.11% | 15.10% | 15.10% |
| | dry tons | 225.46 | 212.44 | 171.14 | 136.55 | 201.78 | 947.37 |
| Evesham MUA | wet tons | 6,455.75 | 7,094.27 | 7,026.38 | 6,788.31 | 6,804.51 | 34,169.22 |
| | % solids | 14.62% | 14.61% | 14.74% | 14.79% | 15.58% | 14.87% |
| | dry tons | 941.97 | 1,036.22 | 1,035.40 | 1,004.24 | 1,060.14 | 5,077.97 |
| | wet tons | 1,601.23 | 2,154.41 | 2,835.42 | 2,303.31 | 2,354.90 | 11,249.27 |
| Florence | % solids | 14.17% | 13.55% | 14.04% | 13.95% | 13.66% | 13.87% |
| | dry tons | 226.87 | 291.95 | 397.98 | 321.36 | 321.71 | 1,559.87 |
| Fort Dix | wet tons | 3,284.06 | 3,879.41 | 4,101.80 | 3,705.38 | 3,480.19 | 18,450.84 |
| | % solids | 20.39% | 19.78% | 19.50% | 19.35% | 18.68% | 19.54% |
| | dry tons | 669.52 | 767.40 | 800.04 | 716.87 | 649.99 | 3,603.82 |
| | wet tons | 3,736.30 | 2,756.77 | 2,826.14 | 3,390.46 | 2,637.03 | 15,346.70 |
| Maple Shade | % solids | 14.69% | 15.10% | 15.84% | 15.61% | 15.59% | 15.37% |
| | dry tons | 546.44 | 416.34 | 447.78 | 529.13 | 384.70 | 2,324.39 |
| Moorestown | wet tons | 1,682.87 | 1,539.25 | 1,637.75 | 1,357.99 | 1,188.21 | 7,406.07 |
| | % solids | 15.80% | 16.02% | 19.01% | 16.70% | 18.22% | 17.15% |
| | dry tons | 265.90 | 246.65 | 311.36 | 253.92 | 215.43 | 1,293.26 |
| | wet tons | 2,885.55 | 2,084.58 | 3,273.92 | 4,505.29 | 6,823.70 | 19,573.04 |
| Mount Holly MUA | % solids | 22.23% | 20.38% | 20.92% | 22.26% | 24.22% | 22.00% |
| | dry tons | 641.39 | 424.78 | 685.04 | 1,002.73 | 1,652.99 | 4,406.93 |
| Mount Laurel MUA | wet tons | 7,157.35 | 6,758.61 | 6,383.16 | 8,504.08 | 6,470.10 | 35,273.30 |
| | % solids | 16.37% | 16.98% | 17.43% | 18.41% | 18.57% | 17.55% |
| | dry tons | 1,164.69 | 1,147.45 | 1,112.36 | 1,197.24 | 1,201.84 | 5,823.58 |
| | wet tons | 377.99 | 398.06 | 337.16 | 400.13 | 337.70 | 1,851.04 |
| Riverside | % solids | 19.72% | 18.90% | 21.85% | 19.09% | 18.46% | 19.60% |
| | dry tons | 74.52 | 75.22 | 73.67 | 76.39 | 62.31 | 362.11 |
| Willingboro MUA | wet tons | 1,938.60 | 1,881.30 | 2,020.24 | 2,037.68 | 1,919.47 | 9,797.29 |
| | % solids | 24.85% | 24.24% | 26.65% | 23.80% | 22.22% | 24.35% |
| | dry tons | 481.72 | 455.94 | 538.32 | 484.90 | 426.43 | 2,387.31 |
| | wet tons | 36,019.24 | 35,844.59 | 37,019.14 | 39,517.53 | 39,529.88 | |
| TOTALS | dry tons | 6,242.24 | 6,170.62 | 6,617.41 | 6,811.87 | 7,331.17 | |
| | avg % solids | 18.16% | 17.87% | 18.74% | 18.38% | 18.26% | |

Source of data: Weekly Biosolids Received Report and Analysis prepared by Synagro.

TABLE 3-9
TEN YEAR SLUDGE GENERATION PROJECTIONS
2005 - 2017

| YEAR | PROJECTED SLUDGE GENERATION (dry metric tons) |
|-------------|--|
| 2005 | 12,151 |
| 2006 | 12,394 |
| 2007 | 12,642 |
| 2008 | 12,895 |
| 2009 | 13,153 |
| 2010 | 13,416 |
| 2011 | 13,684 |
| 2012 | 13,958 |
| 2013 | 14,237 |
| 2014 | 14,522 |
| 2015 | 14,812 |
| 2016 | 15,108 |
| 2017 | 15,410 |

TABLE 3-10
SLUDGE QUALITY DATA

| YEAR/ SOURCE | PARAMETER | 2007 | | | 2006 | | | 2005 | | | 2004 | | | 4 YEAR PERIOD (2004- 2007) | | | 503HQ |
|--------------------------------|------------|--------|-------|-------|--------|-------|--------|--------|--------|--------|-------|--------|--------|----------------------------|--------|-------|-------|
| | | HIGH | LOW | AVG | HIGH | LOW | AVG | HIGH | LOW | AVG | HIGH | LOW | AVG | HIGH | LOW | AVG | |
| BORDENTOWN (NJ0024678) | Arsenic | 12.70 | 5.51 | 8.97 | 6.48 | 11.20 | 5.52 | 7.20 | 6.75 | 5.02 | 6.02 | 12.70 | 5.02 | 6.02 | 7.43 | 41 | |
| | Cadmium | 2.90 | 2.29 | 2.53 | 2.20 | 2.99 | 2.62 | 2.78 | 2.68 | 2.01 | 2.88 | 5.01 | 2.01 | 2.88 | 2.01 | 39 | |
| | Chromium | 22.90 | 13.30 | 18.60 | 16.80 | 23.20 | 16.15 | 16.15 | 28.20 | 14.60 | 21.18 | 50.30 | 14.60 | 21.18 | 20.04 | 1,200 | |
| | Copper | 272 | 206 | 238 | 223 | 274 | 260 | 317 | 368 | 245 | 312 | 388 | 245 | 312 | 206 | 1,500 | |
| | Lead | 153.00 | 19.90 | 57.75 | 24.40 | 17.90 | 20.50 | 37.30 | 28.53 | 15.00 | 25.80 | 153.00 | 15.00 | 25.80 | 33.39 | 300 | |
| | Mercury | 4.10 | 0.72 | 1.59 | 2.48 | 1.10 | 2.19 | 0.61 | 1.19 | 0.50 | 0.87 | 15.70 | 0.50 | 0.87 | 0.50 | 17 | |
| | Molybdenum | 14.50 | 10.50 | 12.20 | 11.00 | 13.15 | 12.00 | 12.48 | 13.50 | 10.00 | 12.03 | 20.70 | 10.00 | 12.03 | 12.46 | XX | |
| | Nickel | 28.30 | 20.70 | 23.18 | 40.30 | 25.40 | 30.20 | 31.65 | 36.30 | 24.80 | 31.28 | 40.30 | 24.80 | 31.28 | 29.08 | 420 | |
| | Selenium | 28.80 | 10.50 | 15.78 | 15.20 | 11.00 | 13.15 | 13.80 | 11.00 | 12.23 | 13.50 | 28.80 | 11.00 | 12.23 | 13.29 | 100 | |
| | Zinc | 1,010 | 721 | 854 | 919 | 725 | 804 | 812 | 993 | 1,160 | 703 | 921 | 1,160 | 703 | 893 | 2,800 | |
| BURLINGTON CITY (NJ0024660) | Arsenic | 8.54 | 3.76 | 5.43 | 4.39 | 7.21 | 6.48 | 4.07 | 5.43 | 6.23 | 6.23 | 13.00 | 6.23 | 6.23 | 6.08 | 41 | |
| | Cadmium | 1.86 | 1.57 | 1.73 | 1.66 | 1.78 | 1.86 | 1.63 | 1.78 | 1.52 | 1.33 | 1.94 | 1.52 | 1.33 | 1.66 | 39 | |
| | Chromium | 94.80 | 62.40 | 78.04 | 151.00 | 74.20 | 116.13 | 121.05 | 201.00 | 154.75 | 201 | 62.40 | 154.75 | 201 | 117.74 | 1,200 | |
| | Copper | 410 | 260 | 315 | 445 | 288 | 412 | 210 | 305 | 289 | 23 | 445 | 23 | 188 | 274 | 1,500 | |
| | Lead | 46.90 | 20.70 | 32.10 | 48.70 | 42.10 | 45.58 | 32.40 | 137.25 | 35.20 | 33.30 | 34.13 | 35.20 | 33.30 | 379.00 | 300 | |
| | Mercury | 0.83 | 0.45 | 0.58 | 0.42 | 1.25 | 1.09 | 0.47 | 0.73 | 0.69 | 0.24 | 0.39 | 0.69 | 0.24 | 0.74 | 17 | |
| | Molybdenum | 9.32 | 7.53 | 8.56 | 9.70 | 8.30 | 8.93 | 9.32 | 9.85 | 13.90 | 8.43 | 13.90 | 8.43 | 9.85 | 8.19 | XX | |
| | Nickel | 21.30 | 10.10 | 15.81 | 24.60 | 13.40 | 16.00 | 13.43 | 18.80 | 12.40 | 17.05 | 24.60 | 12.40 | 17.05 | 15.92 | 420 | |
| | Selenium | 9.32 | 7.53 | 8.56 | 9.70 | 8.30 | 8.93 | 9.32 | 9.85 | 13.90 | 8.43 | 13.90 | 8.43 | 9.85 | 8.19 | XX | |
| | Zinc | 701 | 425 | 553 | 718 | 423 | 533 | 387 | 535 | 610 | 419 | 470 | 535 | 610 | 522 | 2,800 | |
| GINNAMINSON (NJ0024007) | Arsenic | 204.80 | 4.48 | 35.76 | 56.61 | 10.94 | 6.69 | 4.28 | 5.97 | 23.80 | 1.00 | 9.65 | 204.80 | 1.00 | 15.68 | 41 | |
| | Cadmium | 17.86 | 1.11 | 3.68 | 11.32 | 0.48 | 2.86 | 3.48 | 1.22 | 1.88 | 0.40 | 2.44 | 17.86 | 0.40 | 2.72 | 39 | |
| | Chromium | 36.61 | 12.00 | 21.21 | 26.15 | 1.18 | 10.36 | 9.36 | 21.18 | 245.00 | 10.60 | 46.39 | 245.00 | 10.60 | 24.79 | 1,200 | |
| | Copper | 1,180 | 371 | 771 | 1,070 | 47 | 422 | 1,130 | 404 | 781 | 304 | 728 | 1,130 | 304 | 676 | 1,500 | |
| | Lead | 49.38 | 23.30 | 31.57 | 29.40 | 1.50 | 15.85 | 67.20 | 22.50 | 38.34 | 27.30 | 69.00 | 27.30 | 38.28 | 31.01 | 300 | |
| | Mercury | 3.48 | 0.40 | 1.29 | 3.125 | 0.05 | 5.88 | 4.51 | 2.19 | 2.95 | 1.04 | 3.25 | 2.95 | 1.04 | 0.05 | 17 | |
| | Molybdenum | 17.86 | 4.40 | 8.92 | 56.61 | 0.48 | 10.15 | 17.40 | 5.28 | 8.54 | 47.80 | 2.47 | 12.01 | 47.80 | 2.47 | 10.15 | XX |
| | Nickel | 25.46 | 11.10 | 15.84 | 16.20 | 0.63 | 7.72 | 29.10 | 12.80 | 20.39 | 12.80 | 21.41 | 29.30 | 12.80 | 15.34 | 420 | |
| | Selenium | 17.86 | 2.32 | 8.35 | 56.61 | 0.48 | 10.18 | 17.40 | 3.98 | 9.05 | 47.60 | 2.00 | 11.94 | 47.60 | 2.00 | 9.88 | 100 |
| | Zinc | 1,373 | 695 | 1,046 | 1,410 | 49 | 609 | 539 | 728 | 664 | 345 | 590 | 1,410 | 345 | 743 | 2,800 | |
| DELRAN (NJ0023507) | Arsenic | 7.78 | 6.88 | 7.34 | 6.85 | 8.27 | 8.29 | 9.01 | 6.78 | 7.29 | 6.61 | 7.07 | 11.70 | 6.61 | 8.06 | 41 | |
| | Cadmium | 3.11 | 2.75 | 2.89 | 2.53 | 2.83 | 2.71 | 2.29 | 2.55 | 2.64 | 2.81 | 3.11 | 2.55 | 2.81 | 2.77 | 39 | |
| | Chromium | 28.80 | 20.80 | 24.23 | 245.00 | 18.30 | 51.83 | 31.30 | 21.70 | 27.13 | 38.80 | 7.44 | 22.51 | 38.80 | 7.44 | 1,200 | |
| | Copper | 1,060 | 653 | 825 | 678 | 533 | 635 | 868 | 561 | 726 | 1,050 | 551 | 709 | 1,050 | 533 | 1,500 | |
| | Lead | 33.00 | 21.00 | 26.50 | 22.00 | 15.70 | 19.93 | 28.80 | 21.20 | 25.13 | 35.20 | 13.20 | 18.75 | 35.20 | 13.20 | 22.83 | 300 |
| | Mercury | 1.56 | 0.70 | 1.04 | 1.28 | 0.69 | 1.06 | 1.13 | 0.57 | 0.79 | 1.12 | 0.66 | 0.87 | 1.12 | 0.57 | 0.94 | 17 |
| | Molybdenum | 19.40 | 13.80 | 15.80 | 16.50 | 13.70 | 15.19 | 13.50 | 11.50 | 12.73 | 16.50 | 13.20 | 14.63 | 16.50 | 13.20 | 14.58 | XX |
| | Nickel | 20.20 | 14.80 | 17.38 | 14.50 | 12.40 | 13.59 | 19.80 | 18.00 | 19.18 | 19.20 | 7.44 | 15.86 | 19.20 | 7.44 | 16.50 | 420 |
| | Selenium | 15.60 | 13.80 | 14.48 | 15.00 | 12.60 | 14.13 | 13.50 | 11.50 | 12.73 | 14.90 | 13.20 | 14.05 | 14.90 | 13.20 | 13.84 | 100 |
| | Zinc | 1,730 | 953 | 1,312 | 1,350 | 822 | 1,100 | 1,440 | 1,110 | 1,308 | 1,460 | 786 | 1,308 | 1,460 | 786 | 1,491 | 2,800 |
| EVESHAM (NJ0024031) | Arsenic | 7.20 | 6.54 | 6.79 | 17.60 | 6.22 | 8.29 | 9.01 | 6.78 | 7.29 | 6.81 | 8.90 | 17.60 | 6.81 | 8.07 | 41 | |
| | Cadmium | 2.88 | 2.62 | 2.72 | 2.78 | 2.49 | 2.60 | 2.87 | 2.69 | 2.78 | 2.86 | 2.72 | 2.88 | 2.72 | 2.72 | 39 | |
| | Chromium | 18.10 | 10.30 | 14.98 | 18.10 | 12.30 | 15.15 | 15.70 | 10.90 | 12.70 | 19.10 | 13.40 | 16.08 | 19.10 | 13.40 | 14.72 | 1,200 |
| | Copper | 668 | 386 | 557 | 601 | 457 | 528 | 588 | 421 | 485 | 580 | 488 | 555 | 580 | 386 | 1,500 | |
| | Lead | 20.30 | 13.10 | 15.05 | 47.50 | 12.80 | 22.15 | 14.40 | 13.40 | 13.94 | 17.70 | 13.80 | 15.36 | 17.70 | 13.80 | 16.63 | 300 |
| | Mercury | 1.18 | 0.65 | 0.89 | 2.78 | 1.74 | 1.81 | 1.03 | 0.76 | 2.45 | 1.81 | 1.03 | 1.57 | 1.81 | 0.65 | 1.66 | 17 |
| | Molybdenum | 14.40 | 13.10 | 13.58 | 13.90 | 12.40 | 12.88 | 14.40 | 13.40 | 13.94 | 14.30 | 13.60 | 13.87 | 14.40 | 13.60 | 13.59 | XX |
| | Nickel | 13.70 | 10.50 | 12.13 | 13.40 | 10.60 | 11.83 | 13.40 | 11.50 | 12.60 | 13.50 | 12.60 | 13.03 | 13.50 | 12.60 | 12.58 | 420 |
| | Selenium | 14.40 | 13.10 | 13.58 | 13.90 | 12.40 | 12.88 | 14.40 | 13.40 | 13.94 | 14.30 | 13.60 | 13.87 | 14.40 | 13.60 | 13.59 | 100 |
| | Zinc | 991 | 552 | 789 | 810 | 547 | 676 | 625 | 398 | 511 | 628 | 451 | 524 | 628 | 399 | 628 | 2,800 |

DNR = Did not report.
NOD1 = No discharge.

* Riverside is conducting an investigation into elevated zinc levels.

Source of data: NJDEP, Data Miner.

TABLE 3-10
SLUDGE QUALITY DATA

| YEAR/ SOURCE | PARAMETER | 2007 | | | 2006 | | | 2005 | | | 2004 | | | 4 YEAR PERIOD (2004-2007) | | | 503HQ | |
|----------------------------|------------|---------|--------|--------|--------|-------|-------|--------|-------|-------|--------|-------|--------|---------------------------|---------|--------|--------|-------|
| | | HIGH | LOW | AVG | HIGH | LOW | AVG | HIGH | LOW | AVG | HIGH | LOW | AVG | HIGH | LOW | AVG | | |
| FLORENCE (NJ0023701) | Arsenic | 9.75 | 5.05 | 7.95 | 8.54 | 7.29 | 8.08 | 8.36 | 6.92 | 7.45 | 7.83 | 2.67 | 4.20 | 2.67 | 9.75 | 2.67 | 6.92 | 4.1 |
| | Cadmium | 3.90 | 2.02 | 3.18 | 8.89 | 2.92 | 4.53 | 3.34 | 2.77 | 2.98 | 3.13 | 1.07 | 1.98 | 1.07 | 8.89 | 1.07 | 3.12 | 3.9 |
| | Chromium | 59.60 | 32.30 | 47.57 | 44.00 | 37.70 | 39.60 | 47.10 | 33.90 | 39.30 | 40.90 | 21.30 | 31.70 | 21.30 | 59.60 | 21.30 | 39.54 | 1,200 |
| | Copper | 948 | 253 | 563 | 390 | 290 | 339 | 335 | 171 | 281 | 343 | 201 | 280 | 201 | 949 | 171 | 366 | 1,500 |
| | Lead | 39.00 | 18.50 | 26.19 | 17.60 | 14.60 | 16.45 | 24.70 | 14.00 | 18.95 | 19.60 | 7.13 | 13.66 | 7.13 | 39.00 | 7.13 | 18.81 | 300 |
| | Mercury | 5.05 | 0.50 | 1.54 | 0.85 | 0.73 | 0.81 | 1.21 | 0.70 | 0.98 | 0.78 | 0.34 | 0.55 | 0.34 | 5.05 | 0.34 | 0.94 | 17 |
| | Molybdenum | 18.50 | 10.10 | 15.90 | 17.10 | 14.60 | 16.18 | 18.70 | 13.80 | 14.88 | 15.70 | 5.73 | 9.75 | 5.73 | 19.50 | 5.73 | 14.17 | XX |
| | Nickel | 42.90 | 21.10 | 31.59 | 25.30 | 20.50 | 23.08 | 32.10 | 21.60 | 27.00 | 29.70 | 17.50 | 23.70 | 17.50 | 42.90 | 17.50 | 26.34 | 420 |
| | Selenium | 18.50 | 10.10 | 15.90 | 17.10 | 14.60 | 16.18 | 18.70 | 13.80 | 14.88 | 15.70 | 5.73 | 9.75 | 5.73 | 19.50 | 5.73 | 13.84 | 100 |
| | Zinc | 853 | 288 | 504 | 275 | 245 | 265 | 333 | 202 | 259 | 447 | 263 | 338 | 263 | 853 | 202 | 342 | 2,800 |
| FT-DIX (NJ0074284) | Arsenic | 6.84 | 5.81 | 5.99 | 10.80 | 4.83 | 6.75 | 11.50 | 5.21 | 6.93 | 5.74 | 4.72 | 5.47 | 4.72 | 11.50 | 4.72 | 6.29 | 41 |
| | Cadmium | 2.78 | 2.08 | 2.36 | 2.51 | 1.93 | 2.12 | 2.55 | 2.09 | 2.31 | 3.06 | 2.17 | 2.53 | 2.17 | 3.06 | 2.17 | 2.33 | 39 |
| | Chromium | 19.10 | 8.11 | 13.35 | 21.80 | 6.48 | 11.90 | 16.50 | 13.90 | 15.23 | 13.10 | 10.70 | 11.55 | 10.70 | 21.80 | 10.70 | 13.01 | 1,200 |
| | Copper | 374 | 200 | 270 | 301 | 200 | 228 | 252 | 213 | 234 | 305 | 201 | 236 | 201 | 374 | 201 | 243 | 1,500 |
| | Lead | 27.80 | 11.90 | 20.95 | 24.40 | 13.00 | 17.45 | 25.40 | 20.30 | 22.65 | 28.00 | 15.40 | 21.55 | 15.40 | 27.80 | 15.40 | 20.95 | 300 |
| | Mercury | 1.57 | 0.65 | 0.99 | 2.73 | 0.46 | 1.44 | 2.74 | 0.52 | 1.12 | 2.64 | 0.82 | 1.30 | 0.82 | 2.74 | 0.82 | 1.21 | 17 |
| | Molybdenum | 13.60 | 10.40 | 11.73 | 12.40 | 9.23 | 10.42 | 11.50 | 10.40 | 10.98 | 11.70 | 11.40 | 11.50 | 11.40 | 13.60 | 11.40 | 11.16 | XX |
| | Nickel | 14.90 | 11.20 | 13.85 | 16.00 | 8.95 | 11.66 | 12.50 | 11.40 | 11.93 | 12.40 | 9.62 | 11.13 | 9.62 | 16.00 | 9.62 | 12.09 | 420 |
| | Selenium | 13.30 | 10.40 | 11.65 | 12.40 | 9.23 | 10.42 | 11.50 | 10.40 | 10.98 | 11.50 | 9.43 | 10.93 | 9.43 | 13.30 | 9.43 | 11.00 | 100 |
| | Zinc | 649 | 305 | 438 | 515 | 282 | 352 | 414 | 355 | 385 | 503 | 318 | 406 | 318 | 649 | 318 | 395 | 2,800 |
| MAPLE SHADE (NJ0069167) | Arsenic | 1.89 | 0.002 | 1.11 | 2.00 | 1.00 | 1.50 | 1.00 | 0.50 | 0.88 | 4.01 | 1.00 | 1.00 | 4.01 | 1.00 | 0.002 | 1.41 | 41 |
| | Cadmium | 7560.00 | 0.002 | 945.90 | 0.43 | 0.40 | 0.41 | 1.29 | 0.40 | 0.81 | 1.80 | 0.40 | 1.00 | 0.40 | 7560.00 | 0.002 | 237.03 | 39 |
| | Chromium | 19.80 | 10.20 | 15.70 | 22.70 | 13.00 | 17.70 | 29.10 | 9.67 | 17.69 | 22.60 | 13.20 | 16.09 | 13.20 | 22.70 | 13.20 | 16.79 | 1,200 |
| | Copper | 1,390 | 0.01 | 857 | 1,030 | 570 | 816 | 1,290 | 583 | 887 | 821 | 527 | 692 | 527 | 1,330 | 527 | 613 | 1,500 |
| | Lead | 36.30 | 0.002 | 24.68 | 31.70 | 21.10 | 26.00 | 54.30 | 23.50 | 32.90 | 33.80 | 26.30 | 29.78 | 26.30 | 54.30 | 26.30 | 28.34 | 300 |
| | Mercury | 1.04 | 0.0002 | 0.69 | 5.17 | 0.45 | 1.72 | 0.43 | 0.30 | 0.30 | 3.42 | 0.76 | 1.59 | 0.76 | 5.17 | 0.0002 | 1.08 | 17 |
| | Molybdenum | 3.29 | 2.00 | 2.69 | 2.00 | 2.00 | 2.00 | 5.16 | 2.00 | 3.50 | 4.77 | 2.47 | 3.95 | 2.47 | 5.16 | 2.00 | 3.04 | XX |
| | Nickel | 27.70 | 0.01 | 16.79 | 24.70 | 18.30 | 20.60 | 34.00 | 14.10 | 22.48 | 21.40 | 16.40 | 18.88 | 16.40 | 34.00 | 16.40 | 19.88 | 420 |
| | Selenium | 11.70 | 0.0002 | 5.94 | 2.00 | 2.00 | 2.00 | 9.05 | 2.00 | 4.50 | 2.00 | 2.00 | 2.00 | 2.00 | 11.70 | 2.00 | 0.0002 | 100 |
| | Zinc | 841 | 502 | 607 | 689 | 396 | 518 | 748 | 410 | 534 | 505 | 390 | 455 | 390 | 841 | 390 | 528 | 2,800 |
| MOORESTOWN (NJ024995) | Arsenic | 12.00 | 7.80 | 10.75 | 13.30 | 5.72 | 8.53 | 10.50 | 5.95 | 8.94 | 7.52 | 4.60 | 5.93 | 4.60 | 13.30 | 4.60 | 8.54 | 41 |
| | Cadmium | 2.34 | 2.22 | 2.26 | 2.60 | 1.42 | 2.21 | 2.35 | 1.63 | 2.06 | 4.82 | 2.07 | 3.71 | 2.07 | 4.82 | 2.07 | 2.56 | 39 |
| | Chromium | 31.10 | 26.90 | 29.10 | 31.80 | 21.10 | 25.00 | 28.60 | 22.30 | 25.53 | 31.10 | 22.20 | 27.59 | 22.20 | 31.80 | 22.20 | 26.80 | 1,200 |
| | Copper | 926 | 732 | 814 | 872 | 670 | 744 | 984 | 724 | 858 | 882 | 840 | 889 | 840 | 964 | 889 | 821 | 1,500 |
| | Lead | 72.50 | 57.50 | 65.25 | 74.60 | 54.60 | 62.73 | 67.60 | 28.80 | 53.80 | 71.10 | 57.10 | 62.06 | 57.10 | 74.60 | 57.10 | 61.18 | 300 |
| | Mercury | 3.54 | 2.15 | 2.64 | 2.44 | 1.48 | 2.09 | 3.84 | 1.78 | 2.55 | 3.24 | 1.35 | 2.39 | 1.35 | 3.84 | 1.35 | 2.42 | 17 |
| | Molybdenum | 60.80 | 24.20 | 35.90 | 46.00 | 28.50 | 33.53 | 53.70 | 6.25 | 28.78 | 39.60 | 29.80 | 35.77 | 29.80 | 60.80 | 29.80 | 33.50 | XX |
| | Nickel | 26.00 | 22.20 | 24.38 | 26.60 | 20.20 | 22.10 | 23.30 | 11.80 | 19.88 | 23.20 | 19.30 | 21.54 | 19.30 | 26.60 | 19.30 | 21.97 | 420 |
| | Selenium | 16.00 | 11.10 | 12.50 | 13.00 | 6.39 | 10.70 | 11.80 | 5.95 | 9.74 | 12.10 | 9.19 | 10.85 | 9.19 | 16.00 | 9.19 | 10.95 | 100 |
| | Zinc | 1,520 | 1,050 | 1,258 | 1,390 | 943 | 1,166 | 1,370 | 971 | 1,220 | 1,250 | 892 | 1,159 | 892 | 1,520 | 892 | 1,201 | 2,800 |
| MOUNT HOLLY (NJ0024015) | Arsenic | 54.00 | 4.00 | 10.92 | 23.00 | 3.00 | 7.09 | 9.00 | 5.00 | 7.08 | 11.00 | 7.00 | 9.08 | 7.00 | 54.00 | 7.00 | 8.54 | 41 |
| | Cadmium | 7.30 | 1.60 | 3.36 | 8.20 | 2.10 | 4.84 | 5.80 | 2.10 | 3.98 | 10.20 | 2.00 | 4.80 | 2.00 | 10.20 | 2.00 | 4.24 | 39 |
| | Chromium | 61.00 | 23.00 | 42.73 | 55.00 | 28.50 | 44.39 | 65.10 | 40.10 | 46.12 | 57.00 | 68.20 | 332.69 | 68.20 | 65.10 | 68.20 | 156.48 | 1,200 |
| | Copper | 1,010 | 598 | 768 | 1,020 | 504 | 789 | 957 | 625 | 784 | 1,120 | 564 | 817 | 564 | 1,120 | 564 | 789 | 1,500 |
| | Lead | 118.00 | 38.00 | 69.42 | 120.00 | 58.00 | 86.55 | 198.00 | 51.00 | 80.56 | 278.00 | 51.00 | 106.92 | 51.00 | 278.00 | 51.00 | 85.87 | 300 |
| | Mercury | 1.89 | 0.65 | 0.93 | 1.88 | 0.17 | 0.89 | 0.80 | 0.20 | 0.33 | 1.51 | 0.23 | 0.56 | 0.23 | 1.88 | 0.23 | 0.68 | 17 |
| | Molybdenum | 13.00 | 4.00 | 7.50 | 23.00 | 6.00 | 8.42 | 12.00 | 6.00 | 8.42 | 29.00 | 8.00 | 9.42 | 8.00 | 23.00 | 8.00 | 8.87 | XX |
| | Nickel | 42.00 | 16.00 | 25.58 | 27.00 | 14.00 | 20.81 | 23.00 | 15.00 | 18.58 | 29.00 | 14.00 | 21.42 | 14.00 | 42.00 | 14.00 | 21.62 | 420 |
| | Selenium | 20.00 | 5.00 | 13.67 | 57.00 | 8.00 | 16.73 | 21.00 | 7.00 | 15.25 | 15.00 | 7.00 | 10.00 | 7.00 | 57.00 | 7.00 | 13.91 | 100 |
| | Zinc | 2,510 | 1,110 | 1,533 | 1,960 | 1,130 | 1,569 | 2,090 | 1,230 | 1,678 | 1,930 | 1,200 | 1,627 | 1,200 | 2,510 | 1,200 | 1,607 | 2,800 |

DNR = Did not report.
NODI = No discharge.

* Riverside is conducting an investigation into elevated zinc levels.

Source of data: NJDEP, Data Miner.

TABLE 3-10
SLUDGE QUALITY DATA

| YEAR/ SOURCE | PARAMETER | 2007 | | | 2006 | | | 2005 | | | 2004 | | | 4 YEAR PERIOD (2004-2007) | | | 503HQ |
|--------------------------------|------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|---------|---------|---------------------------|---------|---------|-------|
| | | HIGH | LOW | AVG | HIGH | LOW | AVG | HIGH | LOW | AVG | HIGH | LOW | AVG | HIGH | LOW | AVG | |
| MOUNT LAUREL (NJ0025178) | Arsenic | 37.10 | 23.20 | 28.57 | 31.20 | 24.50 | 27.28 | 17.41 | 10.30 | 17.41 | 13.30 | 9.78 | 11.48 | 37.10 | 9.78 | 21.19 | 41 |
| | Cadmium | 3.71 | 2.32 | 2.86 | 3.12 | 2.45 | 2.73 | 3.71 | 2.56 | 3.71 | 36.00 | 10.00 | 17.20 | 36.00 | 2.32 | 6.52 | 39 |
| | Chromium | 18.90 | 8.77 | 11.14 | 12.70 | 7.02 | 9.99 | 10.77 | 6.74 | 10.77 | 12.90 | 7.00 | 10.23 | 12.90 | 6.74 | 10.53 | 1,200 |
| | Copper | 842 | 340 | 546 | 831 | 284 | 488 | 693 | 292 | 480 | 576 | 327 | 438 | 842 | 284 | 483 | 1,500 |
| | Lead | 26.20 | 9.30 | 16.24 | 18.40 | 9.84 | 14.42 | 17.84 | 10.60 | 17.84 | 24.30 | 5.88 | 13.35 | 24.30 | 5.88 | 15.46 | 300 |
| | Mercury | 3.38 | 0.54 | 0.97 | 1.61 | 0.48 | 0.81 | 1.41 | 0.55 | 0.79 | 1.97 | 0.38 | 0.87 | 1.97 | 0.38 | 0.86 | 17 |
| | Molybdenum | 14.80 | 9.30 | 11.43 | 12.50 | 8.81 | 10.92 | 11.53 | 10.30 | 11.53 | 13.60 | 8.78 | 11.62 | 13.60 | 8.78 | 11.37 | XX |
| | Nickel | 22.30 | 9.89 | 13.46 | 17.60 | 10.10 | 12.81 | 15.98 | 10.70 | 15.98 | 66.70 | 48.90 | 57.35 | 66.70 | 9.89 | 24.90 | 420 |
| | Selenium | 37.10 | 23.20 | 28.57 | 44.70 | 24.50 | 30.04 | 41.90 | 6.11 | 18.14 | 8.23 | 4.89 | 5.93 | 44.70 | 4.89 | 20.87 | 100 |
| | Zinc | 867 | 588 | 732 | 808 | 424 | 584 | 759 | 473 | 606 | 775 | 501 | 620 | 867 | 424 | 635 | 2,800 |
| RIVERSIDE (NJ0022519) | Arsenic | 11.00 | 5.25 | 7.68 | 5.87 | 4.89 | 5.34 | 6.27 | 5.32 | 6.27 | 6.08 | 4.53 | 6.27 | 11.00 | 4.53 | 5.96 | 41 |
| | Cadmium | 3.54 | 2.59 | 3.05 | 6.80 | 2.79 | 3.85 | 3.11 | 2.30 | 2.77 | 4.00 | 2.92 | 3.63 | 6.80 | 2.30 | 3.33 | 39 |
| | Chromium | 90.70 | 7.82 | 63.06 | 120.00 | 57.50 | 89.13 | 93.60 | 71.80 | 82.08 | 79.10 | 50.30 | 63.73 | 120.00 | 7.82 | 74.50 | 1,200 |
| | Copper | 1,740 | 1,270 | 1,408 | 1,360 | 1,060 | 1,230 | 1,192 | 960 | 1,192 | 1,340 | 1,070 | 1,208 | 1,740 | 960 | 1,244 | 1,500 |
| | Lead | 165.00 | 137.00 | 152.25 | 172.00 | 107.00 | 138.75 | 144.00 | 88.50 | 118.88 | 140.00 | 103.00 | 120.00 | 172.00 | 88.50 | 132.47 | 300 |
| | Mercury | 6.88 | 1.72 | 3.32 | 5.90 | 1.48 | 2.88 | 3.16 | 1.32 | 2.34 | 2.62 | 1.75 | 2.27 | 5.90 | 1.32 | 2.70 | 17 |
| | Molybdenum | 23.10 | 16.00 | 19.35 | 26.70 | 18.00 | 22.48 | 37.00 | 12.20 | 22.55 | 22.80 | 16.00 | 18.83 | 26.70 | 12.20 | 20.75 | XX |
| | Nickel | 46.80 | 37.90 | 42.63 | 49.50 | 27.10 | 40.28 | 47.35 | 44.60 | 47.35 | 44.30 | 40.40 | 42.18 | 49.50 | 40.40 | 43.11 | 420 |
| | Selenium | 40.50 | 10.50 | 17.58 | 14.60 | 9.77 | 11.72 | 11.50 | 10.80 | 11.05 | 15.10 | 9.58 | 11.35 | 40.50 | 9.58 | 12.92 | 100 |
| | Zinc* | 3,840 | 3,040 | 3,403 | 3,080 | 2,570 | 2,635 | 2,860 | 2,370 | 2,635 | 2,810 | 2,190 | 2,388 | 3,840 | 2,190 | 2,810 | 2,800 |
| WILLINGBORO (NJ002361) | Arsenic | 5.27 | 2.31 | 4.03 | 5.43 | 3.80 | 4.58 | 4.75 | 3.56 | 4.12 | 8.88 | 2.98 | 4.53 | 8.88 | 2.31 | 4.32 | 41 |
| | Cadmium | 7.88 | 0.92 | 2.17 | 2.17 | 1.52 | 1.83 | 4.78 | 1.43 | 2.00 | 7.88 | 1.20 | 3.19 | 7.88 | 0.92 | 2.30 | 39 |
| | Chromium | 18.80 | 8.83 | 14.62 | 75.80 | 13.20 | 21.48 | 17.80 | 11.00 | 15.07 | 28.70 | 12.50 | 18.92 | 75.80 | 8.83 | 17.77 | 1,200 |
| | Copper | 1,460 | 813 | 1,108 | 1,450 | 861 | 1,062 | 1,120 | 889 | 871 | 1,360 | 661 | 1,081 | 1,460 | 661 | 1,033 | 1,500 |
| | Lead | 81.20 | 46.80 | 68.13 | 94.50 | 51.30 | 70.27 | 95.20 | 48.00 | 61.28 | 102.00 | 50.80 | 74.72 | 102.00 | 46.80 | 69.60 | 300 |
| | Mercury | 1.89 | 0.66 | 1.08 | 3.81 | 0.60 | 1.50 | 6.20 | 0.45 | 1.46 | 5.39 | 0.43 | 2.00 | 6.20 | 0.43 | 1.50 | 17 |
| | Molybdenum | 10.50 | 4.52 | 8.08 | 10.80 | 7.60 | 9.18 | 8.25 | 7.13 | 8.25 | 11.40 | 5.98 | 8.56 | 11.40 | 5.98 | 8.51 | XX |
| | Nickel | 49.50 | 28.00 | 39.58 | 48.60 | 25.80 | 32.89 | 41.00 | 25.30 | 33.78 | 63.20 | 26.70 | 44.83 | 63.20 | 26.70 | 37.80 | 420 |
| | Selenium | 31.70 | 7.54 | 17.99 | 10.80 | 7.80 | 9.18 | 13.40 | 7.13 | 9.05 | 18.20 | 7.67 | 11.02 | 31.70 | 7.67 | 11.81 | 100 |
| | Zinc | 1,580 | 850 | 1,272 | 1,500 | 863 | 1,180 | 1,080 | 798 | 948 | 1,470 | 831 | 1,167 | 1,580 | 798 | 1,141 | 2,800 |
| BEVERLY CITY (NJ0027481) | Arsenic | 4.79 | 1.89 | 3.81 | 4.94 | 1.56 | 2.96 | 7.41 | 2.91 | 4.12 | 5.46 | 1.65 | 3.72 | 7.41 | 1.65 | 4.87 | 41 |
| | Cadmium | 3.80 | 0.76 | 2.12 | 1.90 | 0.83 | 1.45 | 6.85 | 1.02 | 3.10 | 4.01 | 1.24 | 3.01 | 6.85 | 1.24 | 2.52 | 39 |
| | Chromium | 33.30 | 7.12 | 21.86 | 25.00 | 10.70 | 19.40 | 43.80 | 16.10 | 30.85 | 75.60 | 16.70 | 43.00 | 75.60 | 7.12 | 28.52 | 1,200 |
| | Copper | 2910.00 | 794.00 | 1347.25 | 631.00 | 311.00 | 536.75 | 1140.00 | 391.00 | 771.75 | 1390.00 | 560.00 | 1085.00 | 2910.00 | 311.00 | 888.98 | 1500 |
| | Lead | 544.00 | 84.40 | 341.10 | 584.00 | 200.00 | 360.75 | 414.00 | 199.00 | 315.50 | 627.00 | 132.00 | 365.75 | 627.00 | 84.40 | 347.29 | 300 |
| | Mercury | 3.28 | 0.19 | 1.75 | 1.44 | 0.80 | 1.12 | 3.13 | 0.95 | 2.04 | 11.40 | 0.78 | 3.87 | 11.40 | 0.78 | 2.97 | 17 |
| | Molybdenum | 6.61 | 3.77 | 6.33 | 5.34 | 3.13 | 4.58 | 34.20 | 4.35 | 13.20 | 18.30 | 7.87 | 11.95 | 34.20 | 7.87 | 10.14 | XX |
| | Nickel | 20.40 | 10.10 | 14.60 | 12.60 | 5.66 | 10.39 | 27.00 | 12.40 | 18.95 | 41.90 | 12.90 | 27.15 | 41.90 | 12.90 | 17.83 | 420 |
| | Selenium | 9.46 | 3.89 | 5.88 | 7.11 | 3.13 | 4.92 | 13.22 | 4.60 | 13.22 | 14.60 | 3.70 | 6.59 | 13.22 | 3.70 | 9.44 | 100 |
| | Zinc | 7040.00 | 1260.00 | 4620.00 | 4070.00 | 1980.00 | 3502.50 | 6520.00 | 2360.00 | 4415.00 | 7770.00 | 2380.00 | 5520.00 | 7770.00 | 2380.00 | 4286.46 | 2800 |
| BURLINGTON TWP. (NJ0021709) | Arsenic | 4.03 | 3.31 | 3.70 | 5.72 | 1.47 | 3.51 | 14.60 | 1.99 | 4.62 | 1.04 | 3.52 | 4.62 | 14.60 | 1.04 | 4.74 | 41 |
| | Cadmium | 1.61 | 0.87 | 1.33 | 1.91 | 0.76 | 1.33 | 3.53 | 1.00 | 2.50 | 21600.00 | 0.76 | 5401.00 | 21600.00 | 0.76 | 2251.39 | 39 |
| | Chromium | 14.10 | 11.70 | 12.50 | 18.00 | 11.80 | 14.83 | 45.40 | 11.80 | 27.70 | 22.40 | 8.05 | 14.39 | 45.40 | 8.05 | 17.71 | 1,200 |
| | Copper | 617.00 | 366.00 | 473.25 | 706.00 | 404.00 | 575.25 | 1820.00 | 442.00 | 1097.00 | 718.00 | 346.00 | 512.50 | 1820.00 | 346.00 | 673.08 | 1500 |
| | Lead | 19.70 | 14.00 | 15.90 | 25.00 | 17.60 | 21.23 | 69.90 | 21.20 | 44.28 | 28.60 | 12.00 | 21.38 | 69.90 | 12.00 | 25.90 | 300 |
| | Mercury | 1.23 | 0.88 | 0.88 | 1.62 | 0.40 | 1.00 | 2.81 | 1.28 | 1.85 | 1.08 | 0.54 | 0.85 | 2.81 | 0.54 | 1.18 | 17 |
| | Molybdenum | 6.06 | 4.32 | 6.65 | 9.57 | 4.38 | 6.47 | 14.60 | 5.62 | 11.81 | 10.20 | 4.11 | 6.47 | 14.60 | 4.11 | 7.78 | XX |
| | Nickel | 36.20 | 18.80 | 22.03 | 22.00 | 17.50 | 19.75 | 51.10 | 22.20 | 36.75 | 30.10 | 15.50 | 21.23 | 51.10 | 15.50 | 25.93 | 420 |
| | Selenium | 15.20 | 4.32 | 8.55 | 8.57 | 2.94 | 5.61 | 14.60 | 4.45 | 11.21 | 12.70 | 2.08 | 6.84 | 14.60 | 2.08 | 8.17 | 100 |
| | Zinc | 785.00 | 524.00 | 628.75 | 1050.00 | 603.00 | 826.00 | 2790.00 | 587.00 | 1554.25 | 1130.00 | 466.00 | 756.00 | 2790.00 | 466.00 | 975.83 | 2800 |

DNR = Did not report.
NODI = No discharge.

* Riverside is conducting an investigation into elevated zinc levels.

Source of data: NJDEP, Data Miner.

TABLE 3-10
SLUDGE QUALITY DATA

| YEAR/ SOURCE | PARAMETER | 2007 | | | 2006 | | | 2005 | | | 2004 | | | 4 YEAR PERIOD (2004-2007) | | | 503HQ | | |
|--------------------------------|------------|---------|--------|--------|---------|--------|---------|---------|---------|---------|---------|---------|---------|---------------------------|---------|---------|---------|--------|---------|
| | | HIGH | LOW | AVG | HIGH | LOW | AVG | HIGH | LOW | AVG | HIGH | LOW | AVG | HIGH | LOW | AVG | | | |
| FIELDSBORO (NJ0031810) | Arsenic | 1.73 | 1.00 | 1.37 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 2.55 | 1.00 | 1.78 | 2.56 | 1.00 | 1.29 | 41 | |
| | Cadmium | 1.80 | 1.71 | 1.76 | 2.19 | 1.73 | 1.96 | 1.00 | 1.00 | 1.00 | 2.79 | 1.00 | 1.90 | 1.00 | 1.90 | 2.79 | 1.00 | 1.65 | 39 |
| | Chromium | 13.40 | 11.40 | 11.40 | 13.40 | 10.20 | 11.80 | 1.00 | 1.00 | 1.00 | 16.70 | 14.20 | 15.45 | 149.00 | 358.00 | 16.70 | 1.00 | 9.91 | 1200 |
| | Copper | 259.00 | 171.00 | 215.00 | 279.00 | 259.00 | 269.00 | 436.00 | 149.00 | 149.00 | 292.50 | 351.00 | 358.00 | 436.00 | 358.00 | 436.00 | 149.00 | 283.63 | 1500 |
| | Lead | 41.00 | 22.10 | 31.55 | 22.30 | 20.80 | 21.55 | 1.00 | 1.00 | 1.00 | 27.50 | 25.40 | 26.45 | 41.00 | 26.45 | 41.00 | 1.00 | 20.14 | 300 |
| | Mercury | 1.00 | 0.35 | 0.68 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 5.17 | 3.09 | 3.07 | 5.17 | 3.09 | 5.17 | 0.35 | 1.38 | 17 |
| | Molybdenum | 3.45 | 1.00 | 2.23 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 5.13 | 3.07 | 3.07 | 5.13 | 3.07 | 5.13 | 1.00 | 1.82 | XX |
| | Nickel | 24.70 | 19.40 | 22.05 | 24.70 | 23.30 | 24.00 | 48.70 | 16.50 | 16.50 | 32.80 | 35.30 | 35.70 | 48.70 | 35.70 | 48.70 | 16.50 | 28.64 | 420 |
| | Selenium | 3.45 | 1.00 | 2.23 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 5.13 | 3.07 | 3.07 | 5.13 | 3.07 | 5.13 | 1.00 | 1.82 | 100 |
| | Zinc | 805.00 | 619.00 | 712.00 | 890.00 | 805.00 | 847.50 | 1360.00 | 419.00 | 419.00 | 899.50 | 981.00 | 1025.50 | 1360.00 | 1025.50 | 1360.00 | 419.00 | 871.13 | 2800 |
| MEDFORD LAKES (NJ0021328) | Arsenic | 10.00 | 2.33 | 6.17 | 4.84 | 2.27 | 3.56 | 1.66 | 1.66 | 2.81 | 10.00 | 1.45 | 5.73 | 10.00 | 1.45 | 10.00 | 4.55 | 41.00 | |
| | Cadmium | 1.58 | 1.30 | 1.44 | 0.98 | 0.61 | 0.79 | 1.69 | 0.83 | 1.26 | 4.00 | 0.71 | 2.36 | 4.00 | 0.71 | 4.00 | 0.61 | 1.46 | 39.00 |
| | Chromium | 12.80 | 11.40 | 12.10 | 6.17 | 4.62 | 6.40 | 11.20 | 2.23 | 2.23 | 6.72 | 11.90 | 6.90 | 12.80 | 6.90 | 12.80 | 1.90 | 6.03 | 1200.00 |
| | Copper | 747.00 | 467.00 | 607.00 | 387.00 | 230.00 | 313.50 | 616.00 | 89.60 | 89.60 | 352.80 | 76.70 | 44.30 | 747.00 | 44.30 | 747.00 | 11.90 | 329.40 | 1500.00 |
| | Lead | 25.50 | 24.80 | 25.20 | 16.60 | 8.89 | 13.25 | 29.30 | 4.48 | 4.48 | 16.99 | 20.00 | 12.14 | 29.30 | 12.14 | 29.30 | 4.27 | 16.87 | 300.00 |
| | Mercury | 1.35 | 0.89 | 1.12 | 1.34 | 0.83 | 1.08 | 1.36 | 0.88 | 0.88 | 1.00 | 0.19 | 0.60 | 1.36 | 0.19 | 1.36 | 0.19 | 0.95 | 17.00 |
| | Molybdenum | 7.91 | 4.62 | 6.27 | 3.05 | 2.36 | 2.71 | 2.02 | 2.02 | 2.02 | 10.45 | 1.42 | 5.71 | 20.00 | 1.42 | 20.00 | 0.88 | 5.36 | XX |
| | Nickel | 8.58 | 8.57 | 8.58 | 6.29 | 3.22 | 4.76 | 8.21 | 1.48 | 1.48 | 4.85 | 10.00 | 1.42 | 10.00 | 1.42 | 10.00 | 1.42 | 5.97 | 420.00 |
| | Selenium | 9.52 | 7.91 | 8.72 | 3.05 | 2.32 | 2.69 | 6.60 | 2.08 | 2.08 | 4.34 | 20.00 | 1.81 | 20.00 | 1.81 | 20.00 | 1.81 | 6.66 | 100.00 |
| | Zinc | 597.00 | 464.00 | 530.50 | 316.00 | 202.00 | 259.00 | 563.00 | 74.20 | 318.60 | 338.00 | 65.30 | 201.65 | 597.00 | 65.30 | 597.00 | 65.30 | 327.44 | 2800.00 |
| MEDFORD TWP. (NJ0026832) | Arsenic | 4.77 | 2.49 | 3.22 | 3.70 | 2.63 | 3.13 | 13.90 | 2.43 | 2.43 | 5.85 | 20.80 | 3.04 | 11.52 | 20.80 | 2.43 | 6.45 | 41 | |
| | Cadmium | 1.60 | 0.86 | 1.12 | 2.32 | 0.87 | 1.47 | 2.79 | 0.97 | 0.97 | 1.68 | 8.37 | 1.54 | 4.81 | 8.37 | 0.86 | 2.37 | 38 | |
| | Chromium | 16.10 | 11.10 | 14.53 | 23.90 | 12.60 | 16.40 | 31.80 | 2.46 | 2.46 | 16.87 | 24.90 | 16.10 | 21.33 | 24.90 | 2.46 | 17.34 | 1200 | |
| | Copper | 695.00 | 516.00 | 613.25 | 980.00 | 538.00 | 722.50 | 1040.00 | 85.60 | 85.60 | 339.65 | 778.00 | 630.00 | 679.25 | 778.00 | 630.00 | 85.60 | 669.77 | 1500 |
| | Lead | 19.60 | 16.50 | 18.23 | 38.00 | 16.10 | 22.98 | 91.20 | 4.87 | 4.87 | 34.67 | 41.80 | 20.30 | 32.80 | 41.80 | 20.30 | 32.80 | 29.59 | 300 |
| | Mercury | 2.52 | 1.36 | 1.88 | 4.62 | 1.93 | 2.86 | 3.19 | 1.57 | 1.57 | 4.62 | 4.41 | 1.91 | 4.62 | 1.91 | 4.62 | 1.36 | 2.68 | 17 |
| | Molybdenum | 5.83 | 3.94 | 4.77 | 5.84 | 3.94 | 5.06 | 63.90 | 4.87 | 4.87 | 19.84 | 41.80 | 5.73 | 22.70 | 41.80 | 5.73 | 3.84 | 15.69 | XX |
| | Nickel | 9.04 | 7.77 | 8.20 | 12.70 | 7.01 | 9.12 | 26.00 | 2.43 | 2.43 | 12.23 | 20.90 | 9.37 | 15.37 | 20.90 | 9.37 | 15.37 | 11.88 | 420 |
| | Selenium | 11.70 | 2.60 | 5.50 | 8.16 | 2.10 | 4.84 | 13.90 | 4.87 | 4.87 | 7.34 | 41.80 | 5.73 | 22.70 | 41.80 | 5.73 | 2.10 | 10.94 | 100 |
| | Zinc | 960.00 | 758.00 | 859.25 | 1500.00 | 805.00 | 1045.25 | 1550.00 | 121.00 | 121.00 | 687.50 | 1120.00 | 882.00 | 953.75 | 1120.00 | 882.00 | 121.00 | 951.81 | 2800 |
| PALMYRA BOROUGH (NJ0024448) | Arsenic | 6.80 | 3.08 | 4.99 | 7.84 | 3.88 | 5.86 | 7.84 | 5.63 | 5.63 | 6.74 | 8.33 | 4.60 | 6.47 | 8.33 | 3.08 | 6.01 | 41 | |
| | Cadmium | 2.76 | 1.23 | 2.00 | 3.14 | 1.55 | 2.35 | 3.14 | 2.25 | 2.25 | 2.70 | 3.33 | 1.84 | 2.59 | 3.33 | 1.23 | 2.41 | 39 | |
| | Chromium | 145.00 | 61.20 | 103.10 | 73.60 | 73.50 | 73.55 | 5010.00 | 4880.00 | 4880.00 | 4945.00 | 6310.00 | 40.60 | 3175.30 | 6310.00 | 40.60 | 2074.24 | 1200 | |
| | Copper | 966.00 | 570.00 | 768.00 | 583.00 | 105.00 | 344.00 | 2970.00 | 1480.00 | 1480.00 | 2200.00 | 3780.00 | 8.33 | 1894.17 | 3780.00 | 8.33 | 1301.64 | 1500 | |
| | Lead | 108.00 | 41.50 | 74.75 | 66.00 | 15.70 | 40.85 | 65.30 | 47.30 | 47.30 | 56.30 | 59.10 | 16.70 | 37.90 | 59.10 | 16.70 | 52.45 | 300 | |
| | Mercury | 1.53 | 1.02 | 1.28 | 1.67 | 1.31 | 1.49 | 9.18 | 0.92 | 0.92 | 5.05 | 3.88 | 0.46 | 2.17 | 3.88 | 0.46 | 2.50 | 17 | |
| | Molybdenum | 13.80 | 6.15 | 9.98 | 15.70 | 7.77 | 11.74 | 15.70 | 11.30 | 11.30 | 13.60 | 16.70 | 9.20 | 12.95 | 16.70 | 9.20 | 6.15 | 12.04 | XX |
| | Nickel | 22.20 | 14.60 | 18.40 | 11.70 | 7.84 | 9.77 | 46.90 | 32.00 | 32.00 | 39.45 | 27.10 | 8.33 | 17.72 | 27.10 | 8.33 | 46.90 | 21.33 | 420 |
| | Selenium | 13.60 | 6.15 | 9.98 | 15.70 | 7.77 | 11.74 | 15.70 | 11.30 | 11.30 | 13.50 | 16.70 | 9.20 | 12.95 | 16.70 | 9.20 | 6.15 | 12.04 | 100 |
| | Zinc | 1040.00 | 572.00 | 806.00 | 519.00 | 102.00 | 310.50 | 661.00 | 542.00 | 542.00 | 601.50 | 748.00 | 594.00 | 671.00 | 748.00 | 594.00 | 102.00 | 587.25 | 2800 |
| PEMBERTON TWP. (NJ0138827) | Arsenic | 7.59 | 2.80 | 4.64 | 4.00 | 3.00 | 3.38 | 5.70 | 2.20 | 2.20 | 3.32 | 3.04 | 3.04 | 3.04 | 3.04 | 2.20 | 3.81 | 41 | |
| | Cadmium | 1.70 | 1.12 | 1.29 | 2.10 | 1.50 | 1.86 | 1.84 | 1.60 | 1.60 | 1.77 | 1.52 | 1.52 | 1.77 | 1.52 | 1.12 | 1.82 | 39 | |
| | Chromium | 14.70 | 8.81 | 11.10 | 17.00 | 12.00 | 14.75 | 18.00 | 10.40 | 10.40 | 13.88 | 9.11 | 9.11 | 9.11 | 13.88 | 9.11 | 12.17 | 1200 | |
| | Copper | 538.00 | 320.00 | 418.50 | 710.00 | 550.00 | 610.00 | 630.00 | 520.00 | 520.00 | 562.20 | 557.00 | 557.00 | 557.00 | 557.00 | 557.00 | 320.00 | 544.14 | 1500 |
| | Lead | 19.30 | 4.60 | 12.93 | 16.00 | 5.00 | 12.50 | 19.00 | 4.66 | 4.66 | 14.97 | 7.44 | 7.44 | 7.44 | 14.97 | 7.44 | 4.60 | 10.96 | 300 |
| | Mercury | 1.90 | 0.54 | 0.92 | 0.87 | 0.69 | 0.81 | 1.49 | 0.76 | 0.76 | 1.01 | 0.70 | 0.70 | 0.70 | 1.01 | 0.70 | 0.54 | 0.82 | 17 |
| | Molybdenum | 9.89 | 3.63 | 6.45 | 9.80 | 8.00 | 8.50 | 12.00 | 8.90 | 8.90 | 10.58 | 9.30 | 9.30 | 9.30 | 10.58 | 9.30 | 3.63 | 8.80 | XX |
| | Nickel | 8.40 | 3.88 | 6.15 | 13.00 | 7.50 | 9.40 | 9.40 | 9.40 | 9.40 | 7.02 | 7.60 | 7.60 | 7.60 | 9.40 | 7.60 | 3.88 | 7.78 | 420 |
| | Selenium | 8.40 | 2.90 | 5.85 | 10.00 | 8.10 | 9.08 | 11.00 | 11.00 | 11.00 | 8.48 | 7.60 | 7.60 | 7.60 | 9.08 | 7.60 | 8.10 | 7.73 | 100 |
| | Zinc | 484.00 | 300.00 | 376.25 | 520.00 | 230.00 | 385.00 | 440.00 | 250.00 | 250.00 | 328.00 | 301.00 | 301.00 | 301.00 | 328.00 | 301.00 | 230.00 | 351.52 | 2800 |

DNR = Did not report.
NODI = No discharge.

* Riverside is conducting an investigation into elevated zinc levels.

Source of data: NJDEP, Data Miner.

TABLE 3-10
SLUDGE QUALITY DATA

| YEAR/ SOURCE | PARAMETER | 2007 | | | 2006 | | | 2005 | | | 2004 | | | 4 YEAR PERIOD (2004- 2007) | | | 503HQ |
|-------------------------------------|------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------------------------|--------|---------|---------|
| | | HIGH | LOW | AVG | HIGH | LOW | AVG | |
| RIVERTON BOROUGH (NJ0021610) | Arsenic | 4.94 | 3.17 | 4.06 | 2.88 | 6.64 | 3.98 | 5.16 | 6.05 | 2.63 | 4.34 | 10.40 | 2.63 | 10.40 | 2.63 | 5.05 | 41.00 |
| | Cadmium | 3.33 | 2.05 | 2.69 | 1.49 | 2.57 | 1.08 | 1.81 | 3.98 | 1.38 | 2.68 | 3.98 | 1.08 | 3.98 | 1.08 | 2.44 | 39.00 |
| | Chromium | 25.20 | 18.50 | 21.85 | 33.90 | 14.00 | 6.29 | 17.40 | 12.85 | 38.30 | 16.60 | 27.45 | 38.30 | 16.60 | 27.45 | 21.52 | 1200.00 |
| | Copper | 2050.00 | 1340.00 | 1695.00 | 921.00 | 1620.00 | 594.00 | 992.00 | 2150.00 | 1010.00 | 1560.00 | 2320.00 | 1010.00 | 2320.00 | 594.00 | 1471.88 | 1500.00 |
| | Lead | 133.00 | 104.00 | 118.50 | 174.00 | 117.95 | 116.00 | 80.90 | 584.00 | 107.00 | 345.50 | 584.00 | 107.00 | 584.00 | 45.80 | 165.71 | 300.00 |
| | Mercury | 4.54 | 4.35 | 4.45 | 3.68 | 7.99 | 4.70 | 0.95 | 7.48 | 3.89 | 5.68 | 12.30 | 3.89 | 12.30 | 0.85 | 5.24 | 17.00 |
| | Molybdenum | 8.97 | 6.20 | 7.59 | 5.76 | 9.73 | 4.57 | 8.64 | 10.10 | 5.26 | 7.68 | 13.70 | 5.26 | 13.70 | 4.57 | 8.41 | XX |
| | Nickel | 38.80 | 38.60 | 38.70 | 16.00 | 31.55 | 33.20 | 15.20 | 24.20 | 33.20 | 39.25 | 47.10 | 33.20 | 47.10 | 15.20 | 33.43 | 420.00 |
| | Selenium | 14.60 | 4.82 | 9.71 | 10.40 | 5.76 | 6.08 | 6.64 | 6.56 | 5.26 | 5.91 | 14.60 | 5.26 | 14.60 | 4.57 | 8.08 | 100.00 |
| | Zinc | 1790.00 | 1540.00 | 1665.00 | 2360.00 | 1715.00 | 1350.00 | 956.50 | 2100.00 | 786.00 | 1448.00 | 2360.00 | 786.00 | 2360.00 | 563.00 | 1446.13 | 2800.00 |
| WRIGHTSTOWN BORO (NJ0022985) | Arsenic | 6.88 | 2.49 | 5.69 | 6.40 | 9.15 | 10.60 | 4.86 | 7.73 | 3.87 | 4.86 | 11.90 | 3.87 | 11.90 | 2.49 | 6.88 | 41.00 |
| | Cadmium | 2.33 | 0.52 | 1.43 | 2.45 | 2.84 | 6.22 | 3.04 | 4.63 | 3.25 | 4.94 | 6.62 | 3.25 | 6.62 | 0.52 | 3.41 | 39.00 |
| | Chromium | 34.10 | 8.60 | 21.35 | 33.60 | 36.80 | 71.50 | 34.10 | 52.80 | 36.10 | 29.30 | 71.50 | 36.10 | 71.50 | 8.60 | 35.91 | 1200.00 |
| | Copper | 853.00 | 220.00 | 536.50 | 766.00 | 681.00 | 723.50 | 818.00 | 1214.00 | 849.00 | 764.00 | 1670.00 | 849.00 | 1670.00 | 220.00 | 820.13 | 1500.00 |
| | Lead | 60.30 | 13.50 | 36.90 | 68.00 | 59.00 | 134.00 | 58.50 | 96.25 | 60.90 | 60.75 | 134.00 | 60.90 | 134.00 | 13.50 | 63.23 | 300.00 |
| | Mercury | 3.77 | 2.19 | 2.98 | 2.90 | 3.06 | 2.45 | 1.97 | 2.21 | 2.63 | 2.51 | 3.77 | 2.51 | 3.77 | 1.97 | 2.70 | 17.00 |
| | Molybdenum | 5.86 | 2.49 | 4.16 | 3.66 | 4.62 | 5.57 | 5.57 | 7.47 | 6.58 | 5.18 | 9.37 | 5.18 | 9.37 | 2.49 | 5.54 | XX |
| | Nickel | 23.40 | 5.70 | 14.55 | 19.30 | 19.15 | 54.10 | 19.30 | 36.70 | 40.60 | 35.60 | 54.10 | 35.60 | 54.10 | 5.70 | 27.15 | 420.00 |
| | Selenium | 5.88 | 2.49 | 4.19 | 4.29 | 7.55 | 10.80 | 2.27 | 6.54 | 5.53 | 4.94 | 10.80 | 4.94 | 10.80 | 2.27 | 5.80 | 100.00 |
| | Zinc | 1120.00 | 272.00 | 696.00 | 943.00 | 1056.50 | 2380.00 | 1020.00 | 1700.00 | 2860.00 | 1430.00 | 2145.00 | 2860.00 | 1430.00 | 272.00 | 1399.38 | 2800.00 |
| A.C WAGNER (NJ0026719) | Arsenic | 10.80 | 2.89 | 6.90 | 2.12 | 2.79 | 3.10 | 2.92 | 3.01 | 2.75 | 2.75 | 10.80 | 2.75 | 10.80 | 2.12 | 3.86 | 41 |
| | Cadmium | 2.15 | 0.90 | 1.53 | 1.38 | 0.42 | 0.90 | 1.61 | 0.72 | 1.66 | 1.36 | 1.17 | 1.66 | 1.36 | 0.42 | 1.28 | 39 |
| | Chromium | 22.80 | 17.50 | 20.15 | 22.40 | 17.30 | 24.00 | 18.60 | 21.30 | 27.80 | 25.05 | 27.80 | 25.05 | 27.80 | 17.50 | 20.95 | 1200 |
| | Copper | 356.00 | 121.00 | 228.50 | 387.00 | 156.00 | 271.50 | 306.00 | 250.00 | 278.00 | 437.50 | 478.00 | 397.00 | 478.00 | 121.00 | 303.88 | 1500 |
| | Lead | 19.90 | 18.20 | 19.05 | 26.60 | 15.10 | 20.85 | 26.60 | 25.95 | 37.20 | 29.00 | 37.20 | 29.00 | 37.20 | 15.10 | 24.74 | 300 |
| | Mercury | 0.54 | 0.53 | 0.54 | 0.61 | 0.53 | 0.57 | 0.49 | 0.49 | 0.64 | 0.56 | 0.64 | 0.56 | 0.64 | 0.49 | 0.55 | 17 |
| | Molybdenum | 10.80 | 4.49 | 7.65 | 6.90 | 4.51 | 3.10 | 2.92 | 3.01 | 4.41 | 4.41 | 10.80 | 4.41 | 10.80 | 2.12 | 4.69 | XX |
| | Nickel | 14.20 | 10.90 | 12.55 | 12.60 | 6.96 | 9.89 | 13.50 | 11.70 | 12.60 | 15.50 | 19.20 | 15.50 | 19.20 | 6.88 | 13.10 | 420 |
| | Selenium | 17.00 | 4.48 | 10.75 | 6.90 | 2.29 | 4.60 | 8.48 | 5.64 | 7.16 | 0.00 | 17.00 | 5.64 | 17.00 | 4.48 | #DIV/0! | 100 |
| | Zinc | 659.00 | 584.00 | 621.50 | 763.00 | 286.00 | 524.50 | 624.00 | 451.00 | 722.00 | 713.00 | 717.50 | 722.00 | 717.50 | 286.00 | 600.25 | 2800 |
| OLDE YORK COUNTRY C (NJ0105392) | Arsenic | DNR | DNR | DNR | 41 |
| | Cadmium | DNR | DNR | DNR | 39 |
| | Chromium | DNR | DNR | DNR | 1200 |
| | Copper | DNR | DNR | DNR | 1500 |
| | Lead | DNR | DNR | DNR | 300 |
| | Mercury | DNR | DNR | DNR | 17 |
| | Molybdenum | DNR | DNR | DNR | XX |
| | Nickel | DNR | DNR | DNR | 420 |
| | Selenium | DNR | DNR | DNR | 100 |
| | Zinc | DNR | DNR | DNR | 2800 |
| HOMESTEAD UTILITY CO (NJ0088663) | Arsenic | NODI | NODI | NODI | 3.83 | 3.83 | NODI | NODI | NODI | 5.27 | 5.27 | 5.27 | 5.27 | 5.27 | 3.83 | 4.55 | 41 |
| | Cadmium | NODI | NODI | NODI | 0.63 | 0.63 | NODI | NODI | NODI | 1.60 | 1.60 | 1.60 | 1.60 | 1.60 | 0.63 | 1.12 | 39 |
| | Chromium | NODI | NODI | NODI | 6.18 | 6.18 | NODI | NODI | NODI | 59.20 | 59.20 | 59.20 | 59.20 | 59.20 | 6.18 | 32.89 | 1200 |
| | Copper | NODI | NODI | NODI | 317.00 | 317.00 | NODI | NODI | NODI | 902.00 | 902.00 | 902.00 | 902.00 | 902.00 | 317.00 | 609.50 | 1500 |
| | Lead | NODI | NODI | NODI | 8.39 | 8.39 | NODI | NODI | NODI | 12.60 | 12.60 | 12.60 | 12.60 | 12.60 | 8.39 | 10.50 | 300 |
| | Mercury | NODI | NODI | NODI | 1.09 | 1.09 | NODI | NODI | NODI | 1.66 | 1.66 | 1.66 | 1.66 | 1.66 | 1.09 | 1.38 | 17 |
| | Molybdenum | NODI | NODI | NODI | 3.15 | 3.15 | NODI | NODI | NODI | 8.00 | 8.00 | 8.00 | 8.00 | 8.00 | 3.15 | 5.68 | XX |
| | Nickel | NODI | NODI | NODI | 7.24 | 7.24 | NODI | NODI | NODI | 28.10 | 28.10 | 28.10 | 28.10 | 28.10 | 7.24 | 17.67 | 420 |
| | Selenium | NODI | NODI | NODI | 3.15 | 3.15 | NODI | NODI | NODI | 8.00 | 8.00 | 8.00 | 8.00 | 8.00 | 3.15 | 5.58 | 100 |
| | Zinc | NODI | NODI | NODI | 204.00 | 204.00 | NODI | NODI | NODI | 646.00 | 646.00 | 646.00 | 646.00 | 646.00 | 204.00 | 425.00 | 2800 |

DNR = Did not report.
NODI = No discharge.

* Riverside is conducting an investigation into elevated zinc levels.

Source of data: NJDEP, Data Miner.

TABLE 3-10
SLUDGE QUALITY DATA

| YEAR/ SOURCE | PARAMETER | 2007 | | | | 2005 | | | | 2004 | | | | 4 YEAR PERIOD (2004- 2007) | | | |
|------------------------------------|------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------------------------|---------|---------|-----|
| | | HIGH | LOW | AVG | DNR | HIGH | LOW | AVG | DNR | HIGH | LOW | AVG | DNR | HIGH | LOW | AVG | DNR |
| MANSFIELD FARMS (NJ010812D) | Arsenic | 55.00 | 22.00 | 38.50 | 21.00 | 1.93 | 18.30 | 10.12 | 4.35 | 3.98 | 56.00 | 1.93 | 56.00 | 1.93 | 16.31 | 41 | |
| | Cadmium | 11.10 | 4.30 | 7.70 | 4.10 | 1.32 | 2.71 | 1.12 | 1.51 | 1.50 | 11.10 | 0.77 | 11.10 | 0.77 | 3.26 | 39 | |
| | Chromium | 22.20 | 17.00 | 19.80 | 16.80 | 8.43 | 12.52 | 9.55 | 13.20 | 10.40 | 22.20 | 7.20 | 22.20 | 7.20 | 13.37 | 1200 | |
| | Copper | 902.00 | 678.00 | 789.00 | 1030.00 | 562.00 | 805.00 | 599.50 | 693.00 | 393.00 | 1030.00 | 543.00 | 1030.00 | 393.00 | 684.38 | 1500 | |
| | Lead | 22.00 | 17.00 | 19.50 | 11.00 | 7.86 | 9.43 | 10.18 | 13.20 | 11.00 | 22.00 | 7.86 | 22.00 | 7.86 | 12.80 | 300 | |
| | Mercury | 2.14 | 2.00 | 2.07 | 4.01 | 0.51 | 2.28 | 0.51 | 0.49 | 0.44 | 4.01 | 0.46 | 4.01 | 0.46 | 1.33 | 17 | |
| | Molybdenum | 44.00 | 17.00 | 30.50 | 16.00 | 6.61 | 11.31 | 7.34 | 6.08 | 4.80 | 44.00 | 3.86 | 44.00 | 3.86 | 13.21 | XX | |
| | Nickel | 44.00 | 23.00 | 33.00 | 18.00 | 12.90 | 15.45 | 13.90 | 12.50 | 12.20 | 44.00 | 10.00 | 44.00 | 10.00 | 18.68 | 420 | |
| | Selenium | 111.00 | 43.00 | 77.00 | 41.00 | 6.61 | 23.81 | 5.60 | 4.55 | 3.95 | 111.00 | 4.10 | 111.00 | 3.95 | 27.63 | 100 | |
| | Zinc | 1340.00 | 1000.00 | 1170.00 | 1270.00 | 1250.00 | 1260.00 | 1325.00 | 2240.00 | 1380.00 | 1340.00 | 1810.00 | 2240.00 | 1000.00 | 1391.25 | 2800 | |
| | Arsenic | 7.30 | 7.30 | 7.30 | 10.00 | 10.00 | 10.00 | 6.85 | 47.00 | 47.00 | 47.00 | 47.00 | 47.00 | 6.85 | 17.79 | 41 | |
| | Cadmium | 3.70 | 3.70 | 3.70 | 5.10 | 5.10 | 5.10 | 3.42 | 23.50 | 23.50 | 23.50 | 23.50 | 23.50 | 3.42 | 6.93 | 39 | |
| | Chromium | 9.20 | 9.20 | 9.20 | 13.00 | 13.00 | 13.00 | 6.56 | 58.70 | 58.70 | 58.70 | 58.70 | 58.70 | 6.56 | 22.37 | 1200 | |
| | Copper | 260.00 | 260.00 | 260.00 | 260.00 | 260.00 | 260.00 | 192.00 | 192.00 | 154.00 | 260.00 | 154.00 | 260.00 | 154.00 | 216.50 | 1500 | |
| Lead | 9.09 | 9.09 | 9.09 | 13.00 | 13.00 | 13.00 | 286.00 | 286.00 | 58.70 | 286.00 | 58.70 | 286.00 | 9.00 | 91.68 | 300 | | |
| Mercury | 1.70 | 1.70 | 1.70 | 1.90 | 1.90 | 1.90 | 1.64 | 1.11 | 1.11 | 1.90 | 1.11 | 1.90 | 1.11 | 1.59 | 17 | | |
| Molybdenum | 9.20 | 9.20 | 9.20 | 13.00 | 13.00 | 13.00 | 8.55 | 58.70 | 58.70 | 58.70 | 58.70 | 58.70 | 8.55 | 23.37 | XX | | |
| Nickel | 18.00 | 18.00 | 18.00 | 25.00 | 25.00 | 25.00 | 17.10 | 117.00 | 117.00 | 117.00 | 117.00 | 117.00 | 17.10 | 44.28 | 420 | | |
| Selenium | 18.00 | 18.00 | 18.00 | 25.00 | 25.00 | 25.00 | 17.10 | 117.00 | 117.00 | 117.00 | 117.00 | 117.00 | 17.10 | 44.28 | 100 | | |
| Zinc | 650.00 | 650.00 | 650.00 | 710.00 | 710.00 | 710.00 | 681.00 | 681.00 | 899.00 | 650.00 | 899.00 | 650.00 | 650.00 | 735.00 | 2800 | | |
| HANOVER MOBILE HOME (NJ0027464) | Arsenic | 81.80 | 81.80 | 81.80 | 11.90 | 11.90 | 11.90 | 14.80 | 286.00 | 286.00 | 286.00 | 286.00 | 286.00 | 11.90 | 88.65 | 41 | |
| | Cadmium | 26.70 | 26.70 | 26.70 | 2.18 | 2.18 | 2.18 | 5.25 | 143.00 | 143.00 | 143.00 | 143.00 | 2.18 | 44.78 | 39 | | |
| | Chromium | 10.60 | 10.60 | 10.60 | 32.10 | 32.10 | 32.10 | 18.40 | 358.00 | 358.00 | 358.00 | 358.00 | 10.60 | 104.78 | 1200 | | |
| | Copper | 52.80 | 52.80 | 52.80 | 164.00 | 164.00 | 164.00 | 245.00 | 716.00 | 716.00 | 716.00 | 716.00 | 52.80 | 294.45 | 1500 | | |
| | Lead | 48.70 | 48.70 | 48.70 | 13.70 | 13.70 | 13.70 | 131.00 | 358.00 | 358.00 | 358.00 | 358.00 | 13.70 | 137.85 | 300 | | |
| | Mercury | 2.14 | 2.14 | 2.14 | 0.93 | 0.93 | 0.93 | 1.14 | 6.06 | 6.06 | 6.06 | 6.06 | 0.93 | 3.07 | 17 | | |
| | Molybdenum | 12.80 | 12.80 | 12.80 | 1.85 | 1.85 | 1.85 | 9.00 | 358.00 | 358.00 | 358.00 | 358.00 | 1.85 | 85.41 | XX | | |
| | Nickel | 14.10 | 14.10 | 14.10 | 22.00 | 22.00 | 22.00 | 12.10 | 716.00 | 716.00 | 716.00 | 716.00 | 12.10 | 191.05 | 420 | | |
| | Selenium | 21.40 | 21.40 | 21.40 | 10.20 | 10.20 | 10.20 | 9.56 | 716.00 | 716.00 | 716.00 | 716.00 | 9.56 | 189.29 | 100 | | |
| | Zinc | 1280.00 | 1280.00 | 1280.00 | 529.00 | 529.00 | 529.00 | 452.00 | 766.00 | 766.00 | 766.00 | 766.00 | 452.00 | 756.75 | 2800 | | |
| | Arsenic | 6.10 | 6.10 | 6.10 | 1.52 | 1.52 | 1.52 | 1.67 | 2.38 | 2.38 | 2.38 | 2.38 | 1.52 | 2.92 | 41.00 | | |
| | Cadmium | 3.10 | 3.10 | 3.10 | 0.60 | 0.60 | 0.60 | 0.65 | 0.95 | 0.95 | 0.95 | 0.95 | 0.60 | 1.33 | 39.00 | | |
| | Chromium | 55.00 | 55.00 | 55.00 | 87.10 | 87.10 | 87.10 | 50.00 | 50.00 | 18.90 | 87.10 | 18.90 | 87.10 | 18.90 | 55.00 | 1200.00 | |
| | Copper | 130.00 | 130.00 | 130.00 | 161.00 | 161.00 | 161.00 | 159.00 | 159.00 | 234.00 | 130.00 | 234.00 | 130.00 | 130.00 | 171.00 | 1500.00 | |
| Lead | 7.60 | 7.60 | 7.60 | 12.20 | 12.20 | 12.20 | 17.30 | 15.90 | 15.90 | 17.30 | 15.90 | 17.30 | 7.60 | 13.25 | 300.00 | | |
| Mercury | 1.30 | 1.30 | 1.30 | 0.40 | 0.40 | 0.40 | 0.64 | 0.33 | 0.33 | 1.30 | 0.33 | 1.30 | 0.33 | 0.67 | 17.00 | | |
| Molybdenum | 7.60 | 7.60 | 7.60 | 3.04 | 3.04 | 3.04 | 4.76 | 3.33 | 4.76 | 7.60 | 3.04 | 7.60 | 3.04 | 4.68 | XX | | |
| Nickel | 15.00 | 15.00 | 15.00 | 10.30 | 10.30 | 10.30 | 6.21 | 6.21 | 7.02 | 15.00 | 6.21 | 15.00 | 6.21 | 9.63 | 420.00 | | |
| Selenium | 15.00 | 15.00 | 15.00 | 3.04 | 3.04 | 3.04 | 4.33 | 4.33 | 7.26 | 15.00 | 4.33 | 15.00 | 4.33 | 7.41 | 100.00 | | |
| Zinc | 340.00 | 340.00 | 340.00 | 460.00 | 460.00 | 460.00 | 216.00 | 216.00 | 365.00 | 340.00 | 365.00 | 340.00 | 216.00 | 345.25 | 2800.00 | | |

DNR = Did not report.
NODI = No discharge.

* Riverside is conducting an investigation into elevated zinc levels.

Source of data: NJDEP, Data Miner.

TABLE 3-10
SLUDGE QUALITY DATA

| YEAR/ SOURCE | PARAMETER | 2007 | | | 2006 | | | 2005 | | | 2004 | | | 4 YEAR PERIOD (2004- 2007) | | | 503HQ | |
|----------------------------------|------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------------------------|---------|---------|---------|---------|
| | | HIGH | LOW | AVG | HIGH | LOW | AVG | | |
| TABERNACLE TWP. MIDD (NJ0001294) | Arsenic | 6.25 | 8.25 | 8.25 | 10.90 | 10.90 | 10.90 | 8.43 | 8.43 | 8.43 | 34.60 | 34.60 | 34.60 | 34.60 | 34.60 | 34.60 | 15.55 | 41 |
| | Cadmium | 102.00 | 102.00 | 102.00 | 194.00 | 194.00 | 194.00 | 0.71 | 0.71 | 0.71 | 28.00 | 28.00 | 28.00 | 194.00 | 194.00 | 194.00 | 81.18 | 39 |
| | Chromium | 35.80 | 35.80 | 35.80 | 20.10 | 20.10 | 20.10 | 1.28 | 1.28 | 1.28 | 15.50 | 15.50 | 15.50 | 35.80 | 35.80 | 35.80 | 18.17 | 1200 |
| | Copper | 1060.00 | 1060.00 | 1060.00 | 924.00 | 924.00 | 924.00 | 29.10 | 29.10 | 29.10 | 826.00 | 826.00 | 826.00 | 1060.00 | 1060.00 | 1060.00 | 709.78 | 1500 |
| | Lead | 178.00 | 178.00 | 178.00 | 173.00 | 173.00 | 173.00 | 2.69 | 2.69 | 2.69 | 292.00 | 292.00 | 292.00 | 292.00 | 292.00 | 292.00 | 161.42 | 300 |
| | Mercury | 0.51 | 0.51 | 0.51 | 1.40 | 1.40 | 1.40 | 2.20 | 2.20 | 2.20 | 3.62 | 3.62 | 3.62 | 3.62 | 3.62 | 3.62 | 1.93 | 17 |
| | Molybdenum | 10.40 | 10.40 | 10.40 | 1.70 | 1.70 | 1.70 | 1.72 | 1.72 | 1.72 | 20.90 | 20.90 | 20.90 | 20.90 | 20.90 | 20.90 | 8.68 | XX |
| | Nickel | 29.30 | 29.30 | 29.30 | 52.40 | 52.40 | 52.40 | 5.59 | 5.59 | 5.59 | 45.20 | 45.20 | 45.20 | 52.40 | 52.40 | 52.40 | 33.12 | 420 |
| | Selenium | 7.03 | 7.03 | 7.03 | 17.50 | 17.50 | 17.50 | 7.19 | 7.19 | 7.19 | 22.20 | 22.20 | 22.20 | 22.20 | 22.20 | 22.20 | 13.48 | 100 |
| | Zinc | 2260.00 | 2260.00 | 2260.00 | 2640.00 | 2640.00 | 2640.00 | 69.40 | 69.40 | 69.40 | 2060.00 | 2060.00 | 2060.00 | 2640.00 | 2640.00 | 2640.00 | 1757.35 | 2600 |
| LENAPE 4TH REGIONAL (NJ0136239) | Arsenic | 65.00 | 65.00 | 65.00 | 150.00 | 150.00 | 150.00 | 7.20 | 7.20 | 7.20 | 47.80 | 47.80 | 47.80 | 150.00 | 150.00 | 150.00 | 67.50 | 41 |
| | Cadmium | 22.60 | 22.60 | 22.60 | 77.00 | 77.00 | 77.00 | 26.00 | 26.00 | 26.00 | 27.20 | 27.20 | 27.20 | 77.00 | 77.00 | 77.00 | 39.20 | 39 |
| | Chromium | 33.00 | 33.00 | 33.00 | 280.00 | 280.00 | 280.00 | 18.00 | 18.00 | 18.00 | 30.40 | 30.40 | 30.40 | 280.00 | 280.00 | 280.00 | 89.85 | 1200 |
| | Copper | 2260.00 | 2260.00 | 2260.00 | 1400.00 | 1400.00 | 1400.00 | 1900.00 | 1900.00 | 1900.00 | 1650.00 | 1650.00 | 1650.00 | 2260.00 | 2260.00 | 2260.00 | 1802.50 | 1500 |
| | Lead | 148.00 | 148.00 | 148.00 | 280.00 | 280.00 | 280.00 | 130.00 | 130.00 | 130.00 | 398.00 | 398.00 | 398.00 | 398.00 | 398.00 | 398.00 | 239.00 | 300 |
| | Mercury | 0.51 | 0.51 | 0.51 | 6.00 | 6.00 | 6.00 | 1.80 | 1.80 | 1.80 | 5.00 | 5.00 | 5.00 | 6.00 | 6.00 | 6.00 | 3.33 | 17 |
| | Molybdenum | 65.00 | 65.00 | 65.00 | 210.00 | 210.00 | 210.00 | 9.00 | 9.00 | 9.00 | 28.80 | 28.80 | 28.80 | 210.00 | 210.00 | 210.00 | 76.20 | XX |
| | Nickel | 130.00 | 130.00 | 130.00 | 570.00 | 570.00 | 570.00 | 18.00 | 18.00 | 18.00 | 160.00 | 160.00 | 160.00 | 570.00 | 570.00 | 570.00 | 219.50 | 420 |
| | Selenium | 65.00 | 65.00 | 65.00 | 45.00 | 45.00 | 45.00 | 18.00 | 18.00 | 18.00 | 30.60 | 30.60 | 30.60 | 65.00 | 65.00 | 65.00 | 39.85 | 100 |
| | Zinc | 1490.00 | 1490.00 | 1490.00 | 1200.00 | 1200.00 | 1200.00 | 1600.00 | 1600.00 | 1600.00 | 3920.00 | 3920.00 | 3920.00 | 1200.00 | 1200.00 | 1200.00 | 2052.50 | 2800 |
| VINCENTOWN UPPER EL (NJ0076538) | Arsenic | 5.33 | 5.33 | 5.33 | 6.56 | 6.56 | 6.56 | 5.25 | 5.25 | 5.25 | 6.06 | 6.06 | 6.06 | 6.56 | 6.56 | 6.56 | 5.60 | 41.00 |
| | Cadmium | 1.07 | 1.07 | 1.07 | 2.62 | 2.62 | 2.62 | 2.11 | 2.11 | 2.11 | 2.83 | 2.83 | 2.83 | 2.62 | 2.62 | 2.62 | 2.16 | 39.00 |
| | Chromium | 9.80 | 9.80 | 9.80 | 6.56 | 6.56 | 6.56 | 5.26 | 5.26 | 5.26 | 6.06 | 6.06 | 6.06 | 9.80 | 9.80 | 9.80 | 6.92 | 1200.00 |
| | Copper | 960.00 | 960.00 | 960.00 | 321.00 | 321.00 | 321.00 | 476.00 | 476.00 | 476.00 | 676.00 | 676.00 | 676.00 | 960.00 | 960.00 | 960.00 | 608.25 | 1500.00 |
| | Lead | 17.90 | 17.90 | 17.90 | 13.10 | 13.10 | 13.10 | 10.50 | 10.50 | 10.50 | 12.10 | 12.10 | 12.10 | 17.90 | 17.90 | 17.90 | 13.40 | 300.00 |
| | Mercury | 0.27 | 0.27 | 0.27 | 0.66 | 0.66 | 0.66 | 0.53 | 0.53 | 0.53 | 0.61 | 0.61 | 0.61 | 0.66 | 0.66 | 0.66 | 0.27 | 17.00 |
| | Molybdenum | 5.37 | 5.37 | 5.37 | 13.10 | 13.10 | 13.10 | 10.50 | 10.50 | 10.50 | 12.10 | 12.10 | 12.10 | 13.10 | 13.10 | 13.10 | 10.27 | XX |
| | Nickel | 13.90 | 13.90 | 13.90 | 6.56 | 6.56 | 6.56 | 6.72 | 6.72 | 6.72 | 8.70 | 8.70 | 8.70 | 13.90 | 13.90 | 13.90 | 8.97 | 420.00 |
| | Selenium | 5.33 | 5.33 | 5.33 | 13.10 | 13.10 | 13.10 | 10.50 | 10.50 | 10.50 | 12.10 | 12.10 | 12.10 | 13.10 | 13.10 | 13.10 | 10.26 | 100.00 |
| | Zinc | 451.00 | 451.00 | 451.00 | 95.60 | 95.60 | 95.60 | 142.00 | 142.00 | 142.00 | 202.00 | 202.00 | 202.00 | 451.00 | 451.00 | 451.00 | 222.90 | 2800.00 |
| NEW LISBON STATE SCH (NJ0070955) | Arsenic | NODI | NODI | NODI | NODI | 41.00 |
| | Cadmium | NODI | NODI | NODI | NODI | 39.00 |
| | Chromium | NODI | NODI | NODI | NODI | 1200.00 |
| | Copper | NODI | NODI | NODI | NODI | 1500.00 |
| | Lead | NODI | NODI | NODI | NODI | 300.00 |
| | Mercury | NODI | NODI | NODI | NODI | 17.00 |
| | Molybdenum | NODI | NODI | NODI | NODI | XX |
| | Nickel | NODI | NODI | NODI | NODI | 420.00 |
| | Selenium | NODI | NODI | NODI | NODI | 100.00 |
| | Zinc | NODI | NODI | NODI | NODI | 2800.00 |

DNR = Did not report.
NODI = No discharge.

* Riverside is conducting an investigation into elevated zinc levels.

Source of data: NJDEP, Data Miner.

IV. SOLID WASTE MANAGEMENT STRATEGY

A. Basic Principles

The Burlington County Solid Waste Management Plan has been formulated based upon the basic principles identified below. Future decisions and the determination of whether any action or facility is consistent with this Plan shall consider these principles as well.

1. Protect Health and Environmental Quality.
 - a. Terminate existing practices which cannot be upgraded to meet environmental standards.
 - b. Upgrade existing practices to meet environmental standards.
 - c. Provide alternative services and facilities capable of meeting environmental standards.
2. Conserve Natural Resources.
 - a. Encourage waste reduction.
 - b. Employ the maximum practicable use of resource recovery, including low and high technology systems.
 - c. Minimize the reliance upon landfills through the use of waste reduction, recycling and conversion technologies.
 - d. Employ the use of bioreactor landfill technology to extend the landfill capacity and useful life.
3. Maximize the protection of groundwater quality by restricting disposal facilities to those sites which have inherent physical and chemical features which would naturally preclude or minimize the potential for contamination.
4. Maximize compatible land uses.
5. Minimize cost and transportation distance without compromising the mitigation of traffic impacts.
6. Allocate burdens fairly among municipalities and counties.
7. Prevent those with poor operating history from operating within the County.
8. Promote agriculture and open space.
9. Promote county planning and coordination.
10. Expand and strengthen existing relationships with the solid waste industry.
11. Integrate the management of solid waste and sludge on a county-wide basis.

12. To the extent practical, centralize the location of waste processing, treatment and disposal facilities.
13. Promote the effective control of hazardous waste through the implementation of conditionally exempt small quantity generator/household hazardous waste source separation and collection.

B. Affirmation of Strategy

Implementation of the solid waste management strategy adopted by the Board of Chosen Freeholders in the 1979 Plan and in subsequent major amendments thereto has resulted in a sustainable solid waste management system that is capable of serving the citizens of Burlington County for the next ten years. While specific goals for the development of resource recovery facilities have not been realized because of financial uncertainty caused by the loss of regulatory flow control, the system now in place provides the framework necessary to achieve the recycling and resource recovery goals embodied in the Updated State Plan. Thus, the solid waste management strategy set forth herein is merely an affirmation of the previously adopted strategy.

1. Solid Waste – Waste Types 10, 13, 13C, 23, 25, 27 and 27I

The County will continue to rely upon landfilling as its primary means of managing solid waste. As discussed in Section VI, sufficient capacity exists at the Resource Recovery Complex to landfill the projected volumes of waste generated over the ten year planning period. Opportunities to divert waste from the landfill will continue to be explored in order to preserve landfill capacity and achieve mandated recycling goals. See Section X. The landfills at the Resource Recovery Complex will be designed and operated as bioreactor landfills to enhance the production and capture of methane gas and the energy associated therewith will be recovered through the production of electricity, heat or other energy products such as biomethane transportation fuel.

2. Sludge – Waste Types 12, 72 and 74

The designated management strategy for dewatered sewage sludge (Waste Type 12) will be co-composting of dewatered sewage sludge and select portions of the solid

waste stream at the Co-composting Facility located at the Resource Recovery Complex. Wastewater treatment plants located within the County that do not have the ability to dewater sludge may opt to manage liquid sludge (Waste Type 72) at Mt. Holly MUA's treatment facility or permitted out-of-county facilities. Pemberton Township MUA will manage sludge it produces at its land application operation. Capacity is available at the Co-composting Facility should any or all of the wastewater treatment plants currently generating liquid sludge opt to install dewatering equipment. Septage (Waste Type 74) generated within the County may be directed to properly permitted facilities in or out of the County.

3. Recycling

The County will meet or exceed targeted goals for recycling through continued operation of existing programs, most importantly the Regional Recycling Program. Recycling collection will be expanded to encompass additional multifamily dwellings, schools and institutions. The types of materials designated to be recycled will be increased as markets become available. Section X of this Plan constitutes the District Recycling Plan which provides a comprehensive overview of existing programs and strategies to increase recycling rates.

4. Household and Small Quantity Generators of Hazardous Waste

The County will encourage residents and conditionally exempt small businesses to segregate and manage hazardous materials separately in order to limit the potential for environmental contamination and liability associated with disposal of these materials in the solid waste stream. The County will make its permanent facility available for acceptance of these wastes for the convenience of generators and continue to work with its municipalities to improve and establish satellite facilities. Relationships with potable water, wastewater and storm water management agencies will be expanded to promote increased awareness of the need to properly manage hazardous wastes. Refer to Section IX of this Plan for more detail.

5. Resource Recovery

As discussed herein, the County's long term strategy for recovering the maximum resource value of the waste stream called for the production of refuse derived fuel (RDF) and compost. At present, it is not likely that the County will move forward with construction of a facility to produce and utilize RDF as originally proposed. However, the County will continue to investigate and evaluate the feasibility of implementing new technologies that will further resource recovery goals. As energy costs rise, increased focus has been placed on research and development of technologies that provide for production of fuels from solid waste. These waste conversion technologies include anaerobic digestion, gasification, and production of refuse derived fuels from particular components of the waste stream. Should such technologies prove to be reliable and implementable from both an economic and environmental perspective, the County will consider investment in a waste conversion facility either as the owner/operator or in partnership with a private entity.

C. Background

In formulating its solid waste management strategy, the County recognized that guaranteed long term landfill disposal capacity is an essential component of any meaningful resource recovery program. The landfill serves as a disposal facility for all non-processable waste and as a back-up to the resource recovery facilities during shutdowns for maintenance and improvements as well as processing upsets and emergency conditions. Moreover, the County determined that it would be in the public's best interest if the County owned landfill capacity to insure long term availability of an environmentally sound facility over which it had control of disposal fees.

The 1979 Plan set forth a solid waste management strategy which called for reliance upon multiple waste management methods and facilities, including source separation/recycling, resource recovery through the production and use of refuse derived fuel (RDF) and compost, and landfilling. An integrated complex of complementary facilities would afford a high degree of flexibility because a mix of facilities could: (1) serve as back

up for one another; (2) better accommodate changes in waste composition anticipated over time; and (3) allow for continuous diversion of waste from the landfill. It was contemplated that the volume of waste landfilled would decrease significantly as the rate of recycling grew and as new technologies developed that would allow for increased opportunities for reuse or recovery of portions of the waste stream.

After completion of numerous siting and other technical studies, the County selected a 500 acre site in Florence and Mansfield Township as the location for its complex of processing and disposal facilities. The site, referred to then as the Burlington County Solid Waste Management Facilities Complex and now known as the Resource Recovery Complex, was incorporated in the District Solid Waste Management Plan in 1982. Following several years of litigation with the host municipalities, the County received the necessary permits and approvals to begin construction at the Complex in 1987. The initial construction phase consisted of a scalehouse, on-site transfer station, two sections (approximately 12 acres) of what would be a fifty-four (54) acre landfill, a convenience center, a wastewater treatment plant, water supply and distribution system and areas for receipt, processing and storage of bulky recyclables such as tires, white goods and wood waste. Waste was accepted for disposal at the Complex commencing in February 1989. A second 69 acre landfill was constructed in 1997.

The County's strategy for recovering the maximum resource value of the waste stream called for the production of RDF and composting. Solid waste generated by households would be directed to a processing facility where it would be mechanically separated into recoverable components: a compostable fraction, a refuse derived fuel (primarily sheet plastics and dry paper), and recyclable ferrous and non-ferrous metals. The compostable fraction of the solid waste stream would be mixed with dewatered sewage sludge and biologically degraded into reusable compost. RDF was to be marketed to utility companies to be co-fired with other fuels for electrical generation.

The 1991 federally imposed deadline for the ocean dumping of sewage sludge was predicted to cause a critical situation with respect to the availability of sludge disposal capacity within the State. The County was encouraged by DEP to move forward with construction of its proposed sludge management facility. At the time, the County was not able to secure a commitment from a utility for receipt of RDF and, therefore, decided to construct the composting facility without the front end solid waste processing component. The facility was constructed at the Complex in 1996, began operation in 1998 and has operated continually since then relying upon processed wood waste as amendment.

Other facilities have been constructed at the Complex to further resource recovery goals, including a permanent household hazardous waste facility which was opened in 1994, a research greenhouse which utilized landfill gas for heat in 1996 and a 7.1 MW landfill gas to electric facility in 2007.

Concurrent with the development of the Resource Recovery Complex, the County began to implement the other key component of its solid waste management strategy - a regional program for the curbside collection of source separated recyclables. Rather than require that each municipality be responsible for a recycling program, the County recognized that a regional program would provide for greater efficiency, enhance the ability to secure markets and provide a level of consistency with respect to the types of materials to be source separated and methods of collection. In order to maximize participation in the program, the County has endeavored to make the program as convenient for residents as possible.

A two year pilot program for collection of newspaper began in four municipalities in 1981. While 500,000 pounds of newspaper were collected in one year, the long term success of the program was jeopardized by unreliable and ineffective collection service by a private hauler retained by the County. In 1982, the Board designated the Occupational Training Center of Burlington County (OTC), a private not for profit sheltered workshop that provides training and employment for individuals with disabilities, as the agency responsible for implementing the Burlington County Regional Recycling Program (Regional Program or

Program). The Program expanded over time to include collection of paper and cardboard, aluminum and steel/tin food and beverage cans, glass bottles and jars and plastic bottles at the curb, at dropoff locations, multifamily dwellings and schools in all forty Burlington County municipalities. Processing of commingled recyclables takes place at the Robert C. Shinn, Jr. Recycling Center located in Westampton Township. The County and OTC continue to pursue opportunities to expand the program by providing recycling opportunities for rigid plastics, marine shrink wrap and other materials as conditions warrant. A more detailed history and description of the recycling program are set forth in Section X.

D. Flow Control and Participation in the Burlington County Solid Waste Management System

In 1997, in anticipation of the invalidation of New Jersey's waste flow regulations, the County adopted a market participant strategy providing for voluntary use of the County solid waste management system by municipalities, waste haulers and waste generators. As discussed below, the County offers contracts to municipalities for waste processing and disposal services provided at the Resource Recovery Complex and recycling collection services provided through the Regional Recycling Program. It is incumbent upon the County to maintain market rates for landfill disposal and recycling services offered at the Complex to ensure delivery of waste by private haulers and commercial waste generators located in the County.

On November 10, 1997, a ruling of the US Supreme Court rendered the State's waste flow regulations invalid. In April 2007, in United Haulers Association, Inc., et al v Oneida-Herkimer Solid Waste Management Authority, the US Supreme Court upheld a flow control ordinance which directed solid waste to a publicly funded and operated disposal facility. DEP has advised counties that they will accept requests from counties, in the form of district solid waste management plan amendments, to restore flow control based upon economic necessity provided that such amendments are consistent with the Court's decision.

At this time, the County will maintain its market participant strategy as set forth below, but may consider reinstating waste flow control if financial conditions warrant.

1. Solid Waste

a. In-County Generated Waste

(1) Municipalities

(a) Contracts

Those municipalities that wish to continue to participate in the County's solid waste management system shall execute a contract with the County, authorized in accordance with the Uniform Shared Services and Consolidation Act, N.J.S.A. 40A:65-1, et seq. (Municipal Solid Waste Services Agreement).

(b) Services to be Provided

Municipalities shall agree to deliver waste to the Resource Recovery Complex that is generated within its geographic boundaries and is collected by the municipality and/or on behalf of the municipality by contract. The County shall offer to:

- i. Provide environmentally sound disposal capacity for all nonhazardous waste;
- ii. Provide for the collection, processing and marketing of recyclable materials designated to be recycled pursuant to the Mandatory Source Separation and Recycling Act, N.J.S.A. 13:1E-99.1 et seq., and the District Recycling Plan;
- iii. Operate and maintain the Household Hazardous Waste Facility at the Burlington County Resource Recovery Complex and allow access to that facility by residents of the municipality and use by the municipality for hazardous wastes it generates in accordance with applicable law;

iv. Provide facilities for the receipt and processing of bulky recyclables delivered to the Complex by the municipality or on behalf of the municipality;

v. Provide support services, such as educational programs aimed at increasing participation in recycling programs. Future services to be provided will be dependent upon financial, legal and technical considerations and shall be made part of any future contracts to be offered by the County.

(c) Term of Contract

The length of contracts will be dependent upon financial, legal and technical considerations and shall be made part of any contract to be offered by the County.

(d) Service Fee

Fees for services provided shall be charged as a tipping fee on solid waste delivered to the Resource Recovery Complex for landfilling. It is understood that the solid waste tipping fee covers the cost of operation of the landfill, recycling program and household hazardous waste facility and debt service associated with development of the solid waste system.

(e) Municipalities that do not elect to participate in the system

Municipalities within Burlington County that choose to deliver solid waste to a facility other than the Burlington County Resource Recovery Complex shall not receive any other services of the solid waste system, including recycling collection. In accordance with the Mandatory Source Separation and Recycling Act, the municipality shall be required to provide for collection of all materials designated to be recycled in the District Plan. In addition, if a municipality has not executed a contract for participation in the county system on or before a date to be specified by the County, and later seeks access to the system, the County may assess a fee in excess of the fee charged to those

municipalities which did execute contracts by the County's specified date provided that sufficient capacity is available.

(f) Fort Dix and McGuire Military Bases

The County recognizes the unique status of the Fort Dix and McGuire Air Force military installations within Burlington County. Military installations will be treated as municipalities for purposes of this plan.

(2) Other Waste Generators

(a) Contracts

Contracts with private commercial haulers servicing businesses within Burlington County or waste generators located in the County will not be required. Waste will be accepted at the Complex in accordance with Rules and Regulations adopted by the Board and the Permanent Tariff.

The County may elect at any time in the future to execute contracts with private haulers or waste generators if it is deemed necessary or desirable to secure a stable revenue flow. Such contracts shall be executed in compliance with the County Solid Waste Disposal Financing Law, N.J.S.A. 40:66A-31.1 et seq.

b. Out-of-County Waste

The County believes that it is a legitimate purpose of government to provide for local and regional waste management needs for the benefit, safety and welfare of its residents, that it has the legal right to participate in the solid waste disposal market, and that it can legally exercise its right to benefit its own residents over others by preserving its landfill resource for in-county generators of solid waste. The County will continue its policy of refusing to accept out-of-county waste for disposal at the landfill. However, while reluctant to do so, the County may out of necessity agree to accept out-of-County waste in order to generate revenues necessary to maintain its solid waste management system.

The County will not prohibit delivery of out-of-county waste to the recycling and co-composting facilities located at the Complex. The volume of waste

delivered from these sources will be closely monitored to ensure that service to in-county generators is not compromised.

2. Sludge

a. In-County Generated Sludge

In a February 10, 1987 Settlement Agreement with the County, DEP agreed to modify the permits for all facilities generating sewage sludge within Burlington County to require, pursuant to the New Jersey Water Quality Planning Act, N.J.S.A. 58:11A-10, the New Jersey Solid Waste Management Act, N.J.S.A. 13:1E-47, and the federal Water Pollution Control Act, 33 U.S.C. sections 1281 and 1288, that all sludge generated within the Burlington County 201 Sludge Management District be disposed in accordance with the (a) the Tri-county 208 Areawide Water Quality Management Plan and (b) the Approved Burlington County District Solid Waste Management Plan. Thus, while the County believes that it has legal authority to direct in-county generated dewatered sewage sludge to the Co-composting Facility, it has elected to execute sludge delivery agreements with public wastewater treatment entities. Sludge delivery agreements are executed with public entities responsible for sludge management, including municipalities, sewerage authorities or municipal utilities authorities in accordance with the Uniform Shared Services and Consolidation Act, N.J.S.A. 40A-65-1 et seq. for five year terms. Fees are established for year one of the contract term and adjusted annually by the increase in the Consumer Price Index. Current contracts expire in June of 2009.

b. Out-of-County Generated Sludge

The County will accept out-of-county generated sludge at the Co-composting Facility through execution of contracts with generators or on a spot market basis. Processing fees for contract services and spot market customers will be determined by the Board on an annual basis.

The County may allow sludges to be procured for processing at the Co-composting Facility by the private entity under contract with the County to operate the

facility. Acceptance of sludge in this instance will be governed by terms set forth in the operations contract and NJPDES Permit #NJ0082741.

V. FINANCING OF SOLID WASTE SYSTEM

A. Public Utility

Any solid waste facility constructed, acquired or operated pursuant to the provisions of the Solid Waste Management Act is deemed a public utility and subject to regulation by the Board of Public Utilities (BPU) pursuant to the Solid Waste Utility Control Act, N.J.S.A. 48-13A-1 et seq. N.J.S.A. 48-13A-2 charges BPU with the duty of setting and enforcing standards and rates for regulation of all economic aspects of solid waste disposal. A sanitary landfill is prohibited from operating unless a tariff has been filed with and approved by BPU. Further, N.J.S.A. 48-13A-6 requires that all persons engaged in the business of solid waste disposal be found by BPU to be qualified to engage in such business and hold a certificate of public convenience and necessity issued by it. By order dated February 1, 1989, BPU issued to the County a Certificate of Public Convenience and Necessity (SW No. 8075), awarded a solid waste disposal franchise for Waste Types 10, 13, 23, 25 and 27, and approved an initial tariff for the Resource Recovery Complex (BPU Docket Nos. SE88091045 and SE88121350).

The duties of the Board of Public Utilities under the Solid Waste Utility Control Act are now vested with the DEP. The Resource Recovery Complex operates under a permanent tariff for solid waste disposal that has been most recently approved by DEP by Order dated December 20, 2005. The tariff establishes a rate schedule and standard terms and conditions, including hours of operation, rules for use of the sanitary landfill and procedures for billing and termination of service. The rate schedule includes peak rates for landfill disposal of Waste Types 10, 13, 13c, 23, 25 and 27; charges for tires, white goods, and lead acid batteries delivered in mixed loads, and other miscellaneous charges. Rates for landfill disposal may not exceed the peak rate.

On May 5, 2008 the Department adopted changes to the Solid Waste Utility Regulations, N.J.A.C. 7:26H-1 et seq., which, among other things, provides for establishment of statewide peak rates for Waste Types 10, 13, 23, 25, 27 and 27A. The statewide peak rate for

each waste type is the highest rate approved by DEP for any solid waste utility in operation in the State. All disposal utilities may adjust rates up or down without DEP approval provided the statewide peak rates are not exceeded.

B. Solid Waste Processing and Disposal Fees

The rates charged for receipt of solid waste, sludge, and recyclables at the Resource Recovery Complex are set annually by resolution of the Freeholder Board. The tipping fee for landfill disposal is comprised of a base rate; State and Local Taxes; and Host Community Benefits. The base rate is regulated by DEP in the Permanent Tariff and represents the revenue stream which supports the County's solid waste management system. The rate is far below the statewide peak rates referenced above. State taxes presently include the landfill closure and contingency tax set at \$1.50 per ton and the new recycling enhancement tax charged at \$3 per ton. There is one local tax assessed at \$0.33 per ton that funds the solid waste and recycling enforcement program conducted by the County Health Department. Host benefits are paid to both Mansfield and Florence Townships.

Fees for receipt, processing, storage, disposal and/or reuse of recyclable and conditionally exempt small quantity generator hazardous waste are not regulated by DEP. As a matter of policy, the fees established for receipt of these materials are generally lower than landfill tipping fees to encourage source separation, reuse and proper management of these waste materials. Fees are established based upon operating costs taking into consideration revenues received for marketing of recyclables. Similarly, fees charged at the Co-composting Facility for sludge processing are not regulated.

C. Solid Waste Utility Fund

By Resolution #42 dated January 27, 1988, the Board of Chosen Freeholders authorized creation of a solid waste utility fund for the purpose of maintaining the financial and accounting records related to implementation of the District Solid Waste Management Plan. The solid waste utility fund is required to be self-liquidating on an annual basis; that is "cash receipts

from fees, rents or other charges in a fiscal year" must be "sufficient to meet operating and maintenance costs and interest and debt redemption charges payable or accruing in such year without recourse to general taxation". N.J.S.A. 40A:2-45. If the utility is not self-liquidating, the County's bonding capacity is negatively impacted.

Sources of revenue to the solid waste utility fund include solid waste tipping fees and special solid waste handling fees as provided for in the Permanent Tariff; sludge processing fees; fees charged to small businesses delivering waste to the Household and Conditionally Exempt Small Quantity Generator Hazardous Waste Facility; fees for processing recyclables; grants when available from Federal, State and local agencies and private foundations; income from the sale of electricity and renewable energy credits; income from sale or lease of property or assets; income from sale of recyclables; income on earnings as allowed by the Internal Revenue Service; and other miscellaneous revenues. In addition, for the purpose of determining whether the utility is self-liquidating, interest on investments and deposits and appropriated surplus may be considered revenues.

All expenses related to operation of the County's solid waste management system and debt service associated with construction of the facilities and equipment that make up that system are charged to the solid waste utility fund.

D. Sanitary Landfill Closure Escrow

N.J.S.A. 13:IE- 109 requires the owner or operator of every sanitary landfill to deposit an amount equal to \$1 per ton for all solid waste accepted for disposal into an interest bearing escrow account, the proceeds of which shall be used for closure and post-closure care of the landfill (Closure Escrow). Withdrawals from the account must be approved by DEP.

Closure entails the design, construction and maintenance of a final capping system and other items as deemed necessary to minimize and monitor pollutants or health hazards upon termination of operation of the landfill. During the post-closure care period,

monitoring and maintenance activities are undertaken to ensure that the containment, leachate and gas collection systems, and capping system continue to function as required. N.J.A.C. 7:26-2A.9(C)5 requires that the post-closure care period continue for 30 years after the date of completion of closure activities. Sanitary landfill owner/operators are required to submit a Closure and Post-Closure Financial Plan to DEP which must delineate the projected costs and expenses for closure and post-closure care and demonstrate that these costs are fully funded by a combination of funds in the required escrow and, if needed, alternative escrow funds.

The County submitted an updated Closure and Post-Closure Financial Plan to DEP as part of its application for renewal of its solid waste facility registration in 2004. Upon review of the plan, DEP advised Burlington County by letter dated August 26, 2005, that it did not believe the plan was fully funded. DEP recommended that the County collect an additional \$0.72 per ton to fund an alternative escrow for closure and post-closure care. The County has not implemented DEP's recommendation because of the need to maintain a competitive disposal rate. The County notes that expenses incurred in final closure of Landfill No. 1 and maintenance of the closed landfill are being funded from current solid waste utility operating revenues. In lieu of increasing its disposal rates, the County would agree to execute an Administrative Consent Order with DEP committing to fund closure and post-closure care through utility operating funds or other County funding sources. This approach has been approved by DEP in an Administrative Consent Order executed with Monmouth County.

E. Financial Stability of Solid Waste Utility

As noted in Section III.A.3, Solid Waste Generation and Disposal Trends, the volume of waste delivered to the County landfill has declined since the 1997 Carbone decision (C & A Carbone, Inc. v. Clarkstown, 511 U.S. 383, 114 S.Ct. 1677, 128 L.Ed.2d399 (1994)). The resultant loss of revenue has seriously compromised the utility and the obligation that it be self liquidating. Given the County's proximity to the incinerator in Camden County and the private landfills that are directly across the Delaware River in Pennsylvania, the County does not believe

it can increase tipping fees to increase revenues or it will run the risk of losing more waste. In order to deliver a balanced utility budget, the County has endeavored to reduce operating expenses, has reduced or eliminated contributions to its self-insurance and equipment replacement funds, and has withdrawn funds from its sanitary landfill closure escrow. These measures collectively have not been adequate and the County has had to rely upon financial assistance from the State for self liquidating purposes. State subsidies for payment of stranded (pre-1997) solid waste utility debt have been received every year since 2000.

While a substantial portion of the debt incurred in acquiring land for the Resource Recovery Complex and construction of earlier phases of the solid waste management system has been amortized, there nonetheless remains \$104 million in outstanding solid waste utility debt. Moreover, it will be necessary to issue additional debt to complete construction of the landfill, improve and expand certain other facilities, replace aging equipment, and modify the current recycling collection and processing systems. If new debt was not issued to construct additional landfill capacity, the outstanding solid waste utility debt would truly be stranded since landfill tipping fees are the major source of revenue relied upon for payment of debt service.

The recent increase in the price of fuel and the elimination of the Solid Waste Services Tax imposed on waste delivered to New Jersey landfills may have a positive affect on the volume of waste delivered to the County's landfill. The cost to transport waste may outweigh cost savings that may be realized at out of state facilities with lower disposal fees. Burlington County has long advocated elimination of the Solid Waste Services Tax. The tax was imposed in 1985 on waste delivered to landfills for the purpose of narrowing the cost differential between landfills and more costly incinerators. Imposition of the tax has placed the County at a competitive disadvantage with the incinerator in neighboring Camden County that has been able to charge a lower disposal fee because of generous state subsidies and no requirement that it collect the Solid Waste Services Tax and the Landfill Closure and Contingency Fund Tax. The Recycling Enhancement Act adopted in January 2008 imposes a \$3 per ton tax on waste going to all solid waste facilities and eliminated the Solid Waste Services Tax effective February 1, 2008.

As a result, the County's rate may be on a more even par with that charged at the Camden County facility.

As noted earlier in the Plan, the County has entered into agreements for the construction and operation of a landfill gas to energy facility at the Complex. Under the terms of these agreements, the County receives electricity at the Complex at no cost which equates to an annual savings approaching \$400,000. In addition, the County shares in the revenues from the sale of electric products, including electricity sold into the power supply grid, renewable energy credits, and any federal tax credits received by the private operator of the facility. It is estimated that total benefit to the County may reach \$2 million annually. If estimates are valid, this new source of revenue will help to offset losses in revenue suffered by reduced waste deliveries.

At the present time, revenues derived from the sale of recyclables are at record highs, primarily due to the high price of petroleum. Revenues received from the sale of recyclables are used to offset collection costs. It is likely that the additional revenues now being realized through the sale of recyclable materials will do little to improve the long term stability of the utility since high fuel costs will result in comparable increases in collection costs.

The current uncertain economic conditions do not allow for any reliable projection of future revenues and expenses and the continued need for state financial assistance. The County will continue to investigate means to reduce operating costs and increase revenue streams. In addition, the County will consider greater use of the Closure Escrow to fund activities that are called for in the Closure and Post Closure Care Plan and are now being funded by operating revenues.

In accordance with the Local Budget Law, N.J.S.A. 40A:4-1 et seq., the County annually establishes the amount to be raised by taxation and the purposes for which said amount will be utilized. As is necessary, the County may allocate funds from the County budget to support its solid waste and recycling activities.

VI. SOLID WASTE AND SLUDGE MANAGEMENT FACILITIES

A. Existing Facilities

As of the effective date of this Plan, the facilities identified herein are in operation, possess a valid approved registration from the Department and are operated and maintained in accordance with applicable health and environmental standards. Facilities identified in this section were included as existing facilities in the 1979 Plan or incorporated by amendment or administrative action subsequent to adoption of the original plan. A Site Plan Map identifying all existing facilities is included as Figure 1.

1. Burlington County Resource Recovery Complex

Solid Waste Facility Registration No. 0318000167
Class B Recycling Center Registration No. 131962
Co-Composting Facility NJDEP Program Interest No. 47205

a. Facility Owner

Burlington County Board of Chosen Freeholders
49 Rancocas Road
Mount Holly, NJ 08060

b. Description

(1) Location

The Resource Recovery Complex is located in Florence and Mansfield Townships, Burlington County, New Jersey on property identified on the Township tax maps as:

Florence Township

Block 172.05: Lots 16.01, 16.02, 17.01, 17.02 and 17.03.

Block 173: Lots 1, 3.01, 4, 5, 6, 8.01 and 10.

Block 174: Lots 2, 3.01, 3.02, 3.03, 3.04, 3.05, 3.06, 4.01, 4.02 and 7.

Mansfield Township

Block 44: Lots 1, 2, 3, 4, 5.01, 5.02, 5.03, 5.04, 5.05, 5.06, 5.07 and 6.

(2) Existing Use

The Complex, a map of which is included as Figure 2, contains the solid waste processing and disposal facilities deemed necessary to implement the solid waste management strategy adopted by the County. At present, the Complex includes: two municipal solid waste landfills; a scalehouse with four truck scales; on-site transfer station; convenience center; leachate treatment plant; potable water storage and treatment facility; storm water sedimentation and detention basins; landfill gas collection/conveyance and treatment facilities; Class B recycling facility for bulky waste materials; household and conditionally exempt small quantity generator hazardous waste facility; a research and demonstration greenhouse operated by Rutgers University; a co-composting facility and a 7.125 MW landfill gas to energy facility. The Complex may include additional solid waste facilities, as the County may, at a later time, deem feasible and desirable to meet the solid waste management needs of its residents or further its resource recovery goals.

(3) Operational Standards

(a) Approved Materials

Waste types 10, 12 (as per Board of Chosen Freeholders of the County of Burlington v. State of New Jersey Department of Environmental Protection Stipulation of Dismissal, Superior Court of New Jersey Appellate Division Docket Nos. A-2905-86T7 and A-2383-87T7), 13, 13C, 23, 25, 27 and 27I are permitted to be accepted at the Complex.

(b) Unauthorized Materials

Waste types 72, 73, 74, designated recyclables as defined in Section XI of this Plan, hazardous waste as defined in N.J.A.C. 7:26-8, household and conditionally exempt small quantity generator hazardous waste, regulated medical waste as defined in N.J.A.C. 7:26-3A, radioactive waste, and friable and non-friable asbestos are not permitted to be accepted at the Complex for landfilling.

centers, located 50 feet off the bottom of the fill. The horizontal pipes are connected to a leachate recirculation header pipe located in the perimeter berm around the landfill. Wastewater is pumped into the header pipe which delivers it to valved lateral pipes connected to the horizontal distribution system. A high level distribution system is a grid design of piping located 10 feet below the final design elevation of the top of fill. To date, only the low level system has been installed.

Due to the propensity of bioreactor landfills to produce significantly more biogas than traditionally designed landfills, greater care must be taken to capture landfill gas in increased volumes and at an earlier stage. Accordingly, the design of the County's bioreactor landfill included a three level gas collection system. The low level system utilizes the leachate collection pipes as gas collectors. The second level is a series of horizontal, perforated pipes on 150 foot centers located ten feet above the low level leachate re-circulation. The third level consists of 10-inch vertical perforated pipes located on 200 foot centers that run from the top surface of the fill to several feet off the bottom.

The advantages of utilizing bioreactor landfilling technology are: 1) to create "new air space for landfilling" through rapid decomposition of the organic fraction of the waste fill causing greater settlement during the operating life of the landfill, thereby allowing settled areas to be refilled multiple times; 2) to generate, capture and utilize additional biogas for energy products; and 3) to reduce closure and post closure costs due to less leachate and gas generation, requiring less cost to manage.

(ii) Use of Temporary Caps

The placement of a geosynthetic membrane over the top of a filled landfill cell as a temporary cap rather than the placement of the normal three feet of final soil cover, which would involve substantial quantities of soil, avoids consumption of landfill air space that the soils would otherwise occupy. The County has deployed the use of a 20 mil reinforced, polyethylene geomembrane as an interim cap over 22 acres of Landfill No.2. The cap not only saves air space but can be removed and replaced multiple times to allow

refilling of reclaimed airspace as settlement of the waste occurs due to accelerated anaerobic decomposition.

(iii) Use of Alternative Daily and Intermediate Covers

The use of soil for daily cover can consume significant amounts of air space. The County has been utilizing a reinforced plastic tarp as daily cover since the inception of the bioreactor landfill at the Complex. The tarps are on large reels that allow automatic deployment and retrieval with a front loader. For intermediate cover the County utilizes a blend of wood chips, minus 3/8-inch crushed glass and sandy soils mixed on an equal volume basis. Wood chips are produced primarily from plywood and painted wood pulled from the landfill workface. This type of wood is not otherwise recyclable today. Removal of bulky woods from the workface and size reduction to 1-1/4 inch chips for the cover blend consumes less air space and allows for more rapid decomposition due to increased surface area for biological activity.

(iv) Deterrence of Bulky Waste

Construction /demolition wastes and bulky wastes are difficult to compact in a landfill and consume a disproportionate amount of air space as compared to other waste types. In order to extend landfill capacity, the County operates a “roll-off container sorting area” adjacent to the working face where all roll-off container loads of these wastes are tipped and sorted for recyclable materials (primarily metal, wood and cardboard). The County also offers reduced tipping fees for certain types of materials that make up these waste streams as a means of encouraging source separation and recycling. These materials include drywall, various types of woods, metals and tires. The County’s Recycling Plan also encourages municipalities to adopt ordinances to mandate the recycling of construction and demolition wastes.

(b) Recycling Facilities

Located within the Complex is a Class B Recycling Center which is permitted to accept trees, tree parts, brush and stumps; treated wood waste without

chemical preservatives; treated wood waste with chemical preservatives; tires and wallboard. Scrap metal and white goods are also accepted. White goods and tires are temporarily stockpiled and transported off-site for recycling when sufficient quantities are accumulated. White goods containing freon, such as refrigerators and air conditioners, are stored in a separate area to facilitate the recovery of freon prior to transportation to a scrap metal market. Propane tanks are also stored and marketed separately. Scrap metals are separated, stored and marketed by metal types. Wood treated with preservatives such as creosote, copper, chromium and arsenic (CCA) and pentachlorophenols are separated from all incoming mixed waste loads and stockpiled separately from all other wood prior to shipment off-site for disposal. Wood treated with glue and/or paint is segregated and shredded and mixed with soil and minus 3/8- inch glass drainage sand for daily and intermediate landfill cover. Untreated dimensional lumber and tree parts are stockpiled separately and shredded for use as carbon amendment in the Co-composting Facility. Shredded and screened tree wood is also utilized as biofilter media at the Co-composting Facility.

(c) Co-Composting Facility

The Co-composting Facility is an enclosed, forced-air, agitated-bed, aerobic composting system. Dewatered sewage sludge is delivered to the facility, mixed with an amendment and loaded into the concrete bays where it undergoes aerobic biological decomposition in a temperature, oxygen and moisture controlled environment. After active composting, the mixture is transferred to curing bins where it undergoes further biological decomposition to produce a marketable compost product. The Co-composting Facility NJPDES permit allows the facility to process a variety of organic materials, including dewatered sewage sludge, food and food processing waste, clean wood waste, cardboard, paper and yard waste, however, the County must obtain additional, specific written NJDEP approval to process any material other than dewatered sewage sludge and clean wood waste. The capacity of the Co-composting Facility is dictated by the solids content of the material processed and by state issued permits. In the event that the Co-composting Facility is unable

to accept waste for processing, dewatered sewage sludge will be managed in accordance with Board of Chosen Freeholders of the County of Burlington v. State of New Jersey Department of Environmental Protection Stipulation of Dismissal, Superior Court of New Jersey Appellate Division Docket Nos. A-2905-86T7 and A-2383-87T7 and the Statewide Solid Waste Management and Sludge Management Plan.

(d) Household Hazardous Waste Facility

The Household and Conditionally Exempt Small Quantity Generator Hazardous Waste Facility is approved for all categories of hazardous and acutely hazardous waste in liquid, semi-liquid, solid and aerosol or gaseous forms which are generated by residential households and businesses that are considered Conditionally Exempt Small Quantity Generators (CESQGs). Latex paint, anti-freeze, waste oil and oil filters, mercury containing lamps, switches and ballasts and non-hazardous liquids such as household cleaning products are also accepted at this facility. The facility does not accept explosives or radioactive wastes.

(e) Hours of Operation

The Resource Recovery Complex is open for receipt of solid waste from 7:00 a.m. to 5:00 p.m. Monday through Friday and from 7:00 a.m. to 2:00 p.m. Saturdays. The Household and Small Quantity Generators Hazardous Waste Facility is open for receipt of waste from 7:00 a.m. to 3:00 p.m. Tuesday through Friday and 7:00 a.m. to 1:30 p.m. Saturday.

(f) Mandatory Access and Egress Routes

i. Access Route

All truck traffic entering the Burlington County Resource Recovery Complex (Complex) shall utilize Interstate 295, leave I-295 via exit 52 (Florence-Columbus Interchange), travel East on County Route 656 (Florence-Columbus Road), turn right, onto County Route 543 (Burlington-Columbus Road) and travel West on County Route 543 to the entrance of the Complex.

ii. Egress Route

All traffic exiting the Complex shall turn right and travel East on County Route 543 (Burlington-Columbus Road), turn left and travel West on County Route 656 to Route I-295 and travel on I-295 to another exit.

iii. Exceptions to the Mandatory Access and Egress Routes

The mandatory access and egress routes shall not apply to the following vehicles:

- (i) Pick-up trucks driven by employees working at the Complex for the purpose of traveling to and from their employment;
- (ii) Vehicles hauling materials generated within the Townships of Florence, Mansfield or Springfield to the Complex;
- (iii) Vehicles traveling from the Complex to a destination within the Townships of Florence, Mansfield or Springfield.

iv. Enforcement of Mandatory Routes

In addition to any other remedy authorized by law, violation of mandatory access and egress routes set forth within this Plan shall constitute grounds for banning any person violating those requirements from access to the Complex or for otherwise limiting access by that person to the Complex.

2. Transfer Stations

a. Republic Services New Jersey, LLC (formerly Atlantic Recovery and Transfer Station (ARTS))

Facility Registration No. 0324000174

(1) Facility Owner

Republic Services of New Jersey, LLC
4100 Church Road
Mount Laurel, NJ 08054

(2) Facility Location

Block 1300, Lot 13
Mount Laurel Township
4100 Church Road

(3) Existing Use

The Republic Transfer Station receives municipal, bulky, construction and demolition, vegetative, and dry industrial wastes.

(4) Operational Standards

(a) Approved Materials

Waste types 10, 13, 13C, 23 and 27 are permitted to be accepted at the facility.

(b) Capacity

The facility is permitted to accept a maximum of 650 tons of solid waste on any operating day.

(c) Hours of Operation

The transfer station is permitted to accept waste from Monday through Saturday, 7:00 a.m. to 7:00 p.m., to process waste Monday through Saturday, 7:00 a.m. to 9:00 p.m. and to conduct facility maintenance and clean-up Monday through Saturday, 6:00 a.m. to 7:00 a.m. and Monday through Saturday, 7:00 p.m. to 9:00 p.m.

(d) Approved Truck Routes

Republic Services has an approved on-site truck route. In addition, solid waste vehicles are not permitted to exit via Lot 13 and pass through the intersection of Springdale and Church Roads.

3. Intermodal Container Facilities

a. Safety-Kleen Corporation

Facility ID No. 0306001416

(1) Facility Owner

Charles W. Kirman

(2) Facility Location

Block 120, Lot 1
Burlington Township
109 Connecticut Avenue

(3) Existing Use

Closed containers of liquid and semi-liquid non-hazardous wastes ranging in size from 5 to 350 gallons are transported from Safety-Kleen branch facilities throughout the region. Waste containers arrive via tractor trailer, are unloaded into an indoor staging area and segregated based on final destination.

(4) Operational Standards

(a) Approved Materials

Waste types 27 and 72.

(b) Capacity

Twenty-five (25) cubic yards per day (volume equivalent equal to 5,000 gallons per day) of Type 27 waste and five thousand (5,000) gallons per day of Type 72 waste.

(c) Hours of Operation

7:00 a.m. – 5:00 p.m., Monday - Friday

(d) Approved Truck Routes

None.

4. Sludge and Septage Facilities

a. Burlington County Co-composting Facility

See Burlington County Resource Recovery Complex in Section VI.B.1.b(5)(c).

b. Mount Holly Municipal Utilities Authority Water Pollution Control Facility

NJPDES Permit No. NJ0024015

(1) Facility Owner

Mount Holly Municipal Utilities Authority
37 Washington Street
Mount Holly, NJ 08060

(2) Description

(a) Location

Block 133, Lot 1
Mount Holly Township
300 Rancocas Road & Route 541 Bypass

(b) Existing Use

MHMUA accepts liquid sludges for processing and dewatering. This treatment plant presently is the County's largest acceptor of septage because of its available capacity and sludge handling system. The County does not preclude other treatment plants from accepting septage provided compliance with their NJPDES permits is maintained. MHMUA has excess capacity to adequately handle all of the septage generated within Burlington County and will serve as the County's long-term septage disposal facility. The facility has one sludge storage tank with a total of 400,000 gallons and one leachate storage tank with a total of 300,000 gallons of capacity. Sludge is processed, dewatered and managed at the Burlington County Co-composting Facility and the Atlantic County Utilities Authority incinerator.

(c) Operational Standards

i. Approved Materials

Waste types 27, 72, 73 and 74.

ii. Capacity

There are no specific current NJPDES permit limitations regarding the volume of sludge and septage that MHMUA is allowed to accept. However, the

MHMUA must comply with any limitations set forth in the applicable wastewater management plan and can not accept any wastes which man cause noncompliance with NJPDES Permit No. NJ0024015.

iii. Hours of Operation

Deliveries:

6:00 a.m. – 6:00 p.m., 7 days/week

Operations:

24 hours/day, 7 days/week.

iv. Approved Truck Routes

None.

c. PTMUA Land Application Site

NJPDES Permit No. NJ0138827

(1) Facility Owner

Pemberton Township Municipal Utilities Authority
500 Pemberton-Browns Mills Road
P.O. Box 218
New Lisbon, NJ 08064

(2) Description

(a) Location

Block 800, Lot 18.01
Block 803, Lots 6, 7 and 8
Block 804, Lot 3
Pemberton Township

(b) Existing Use

Prepared residual from the Pemberton Township Municipal Utilities Authority is surface applied to this site and then plowed under within a six hour period in accordance with a Letter of Land Application Management Approval (LLAMA) issued by DEP.

(c) Operational Standards

i. Approved Materials

Waste type 74.

ii. Capacity

There are no specific limitations on the volume of sludge that the PTMUA is permitted to land apply. Application rates are regulated by the nutrient content of the sludge and nutrient uptake rate of crops.

iii. Hours of Operation

The hours of operation are limited to daylight hours.

iv. Approved Truck Routes

None.

d. Beverly City Sewerage Authority Reed Beds

NJPDES Notice of Authorization NJG0105911 to operate under the NJPDES General Permit NJ0132501 (Reed Beds)

(1) Facility Owner

Beverly City Sewerage Authority
P.O. Box 374
Beverly City, NJ 08010

(2) Description

(a) Location

Block 18, Lot 1
Penn and Magnolia Streets

(b) Existing Use

Sewage sludge from the treatment of sanitary wastewater at the Beverly City Wastewater Treatment Plant is discharged to three basins or cells in which the reed bed grass Phragmites is cultivated to facilitate the sludge drying and treatment process. The beds were established in 1985 and the removal of sludge occurs approximately every 10 to 12 years.

(c) Operational Standards

i. Approved Materials

Waste type 74.

ii. Capacity

The loading of sludge to the reed beds is limited based on the type and the total solids of the sludge discharged.

iii. Hours of Operation

24 hours/day, 7 days/week

iv. Truck Routes

Not applicable.

e. New Lisbon Development Center Reed Beds

NJPDES Notice of Authorization NJG0130940 to operate under the NJPDES General Permit NJ0132501 (Reed Beds)

(1) Facility Owner

The State of New Jersey

(2) Description

(a) Location

Block 601, Lots 1-9
Woodland Township

(b) Existing Use

Sewage sludge from the treatment of sanitary wastewater at the New Lisbon Developmental Center Wastewater Treatment Plant is discharged to two concrete structures in which the reed bed grass Phragmites is cultivated to facilitate the sludge drying and treatment process. The Phragmites are harvested every year and sludge pumping and disposal is conducted in accordance with NJPDES General Permit No. NJ0132501, occurring approximately every ten years.

(c) Operational Standards

i. Approved Materials

Waste type 74.

ii. Capacity

The loading of sludge to the reed beds is limited based on the type and the total solids of the sludge discharged.

iii. Hours of Operation

24 hours/day, 7 days/week

iv. Truck Routes

Not applicable.

5. Recycling Facilities

a. Class A Recycling Facilities

(1) The Robert C. Shinn, Jr. Recycling Center

(a) Facility Owner

Occupational Training Center of Burlington County, Inc.
130 Hancock Lane
Mount Holly, NJ 08060

(b) Description

i. Location

Block 905, Lot 1.01
Westampton Township

ii. Existing Use

Collected source separated recyclables are delivered to the facility for processing and transported to end markets.

iii. Operational Standards

(i) Approved Materials

Class A Recyclables.

(ii) Capacity

No permitted limit.

(iii) Hours of Operation

Materials receipt:

6:00 a.m. – 8:00 p.m. Monday – Friday

7:00 a.m. – 7:00 p.m. Saturday

Materials processing:

6:00 a.m. – 12:00 a.m. Monday – Friday

7:00 a.m. – 7:00 p.m. Saturday and Sunday

(iv) Approved Truck Routes

None

b. Class B Recycling Facilities

(1) Burlington County Resource Recovery Complex

Facility ID No. 131962

See Burlington County Resource Recovery Complex in Section VI.B.1.

(2) Herman's Trucking

Facility ID No. 131974

(a) Facility Owner

Herman's Trucking, Inc.

181 Jacobstown-Cookstown Road

Wrightstown, NJ 08562

(b) Description

i. Location

Block 800, Lot 9.01

North Hanover Township

181 Jacobstown-Cookstown Road

ii. Existing Use

This recycling center receives concrete, asphalt, brick and block, wood stumps, tree branches and limbs from construction and demolition contractors, construction companies, landscapers, land clearing operations municipalities and counties.

These recyclable materials are processed into size reduced concrete, wood chips and hardwood and root mulches. The crushed concrete aggregate is marketed as road construction, drainageways and other similar type construction applications. Wood chips and mulches are marketed primarily to landscapers and construction contractors. Herman's Trucking is also an existing Class C recycling center for yard trimmings and leaves.

iii. Operational Standards

(i) Approved Materials

Concrete, asphalt, brick and block, ceramic, porcelain, wood stumps, tree branches and limbs and foundry sand.

(ii) Capacity

1,600 tons of concrete, asphalt, brick and block, ceramic and porcelain, 148 tons of wood stumps, tree branches and limbs and 100 tons of foundry sand may be received on a daily basis.

(iii) Hours of Operation

7:00 a.m. to 7:00 p.m., Monday – Friday
9:00 a.m. to 1:00 p.m. Saturday

(iv) Approved Truck Routes

Access and egress of the facility is restricted to Jacobstown-Cookstown Road.

(3) Mimlitsch Enterprises, Inc.

Facility ID No. 0313001513

(a) Facility Owner

Mimlitsch Enterprises
151 New Road
Marlton, New Jersey 08053

(b) Description

i. Location

Block 44, Lot 8.02
Evesham Township
151 New Road

ii. Existing Use

As part of a landscape supply business, approximately 10 tons per day of tree parts and brush are delivered to the site by municipalities and landscape contractors. These Class B recyclables are processed into mulch products for sale to municipalities, garden centers and landscape contractors. Sand, stone, sawdust and three different mulch products, licorice, bark and wood mulch, are delivered to the site for direct sale to landscape contractors.

iii. Operational Standards

(i) Approved Materials

Tree parts, tree stumps, brush and leaves and wooden pallets.

(ii) Capacity

10 tons of tree parts, 30 tons of tree stumps, brush and leaves and 10 tons of wooden pallets on a daily basis.

(iii) Hours of operation

7:00 a.m. to 5:00 p.m., Monday – Friday
7:00 a.m. to 3:00 p.m., Saturday

(iv) Approved truck routes

None.

(4) STA-SEAL (formerly Burlington Asphalt)

Facility ID No. 0317001166

(a) Facility Owner

STA-SEAL, Inc.
P.O. Box 419
Kingston, NJ 08528

(b) Description

i. Location

Block 14, Lots 1.01, 1.02, 1.04 and 1.05
Lumberton Township
Block 42.02, Lots 1 and 2
Hainesport Township
Maple Avenue

ii. Existing Use

This recycling center receives concrete, asphalt, brick and block from construction and demolition sites which is processed into a finished aggregate product and marketed from the site.

iii. Operational Standards

(i) Approved Materials

Concrete, asphalt, brick and block.

(ii) Capacity

2,000 tons per day.

(iii) Hours of operation

7:00 a.m. to 4:00 p.m., Monday – Saturday

(iv) Approved truck routes

Access and egress of the facility is restricted to Maple Avenue.

c. Class C Recycling Facilities

An inventory of the publicly and privately owned Class C Recycling Facilities is included in Table 6-2.

d. Class D Recycling Facilities

(1) Federal Prison Industries, Inc. (UNICOR)

Facility ID No. 155407

(a) Owner

Federal Prison Industries, Incorporated
P.O. Box 6000
Building 5713
Fort Dix, New Jersey 08640

(b) Location

Block 21, Lot 1
New Hanover Township
Building 5713, Fort Dix Military Reservation

(c) Materials

Source separated consumer electronics including computers, printers, copiers, fax machines, VCRs, stereos, televisions or telecommunications devices may be received in whole or in part.

(d) Existing Use

Approximately 200 tons per day of consumer electronics may be delivered to the recycling facility where serviceable goods are tested, cleaned and readied for resale. Non-serviceable equipment is disassembled by inmates using hand tools, separated and sorted by recyclable component. Recyclable components such as aluminum, cardboard, metal, paper and plastics are compacted, bailed and loaded onto trailers for transport to end markets.

6. Exempt Facilities

a. Limited Recycling Centers

N.J.A.C. 7:26A-4.2, which requires inclusion of recycling centers in district solid waste management plans specifically grants an exception to recycling centers operating under a limited approval. Limited approval is an approval to operate a recycling

center for the receipt, storage, processing or transfer of Class B recyclable material for a period of time not to exceed 180 days. The procedures for applying for a limited approval to operate a recycling center for Class B recyclable material are set forth at N.J.A.C. 7:26A-3.7. The procedures do not require persons applying for a limited approval to seek inclusion in District Plans. Applicants are required to submit one copy of the application for limited approval to the clerk of the municipality and the solid waste or recycling coordinator of the county in which the recycling center is located. N.J.A.C. 7:26A-3.7(b).

b. Leaf Mulching Operations

In accordance with N.J.A.C. 7:26A-1.4.a.12, leaf mulching activities on land deemed actively devoted to agricultural or horticultural use as defined in the Farmland Assessment Act of 1964, N.J.S.A. 54:4-23.5, are exempt from the requirement to obtain a general or limited recycling center approval provided that particular operational parameters are followed. N.J.A.C. 7:26A-1.4(b)5 requires all persons operating pursuant to an exemption to provide written notice of such operation to DEP, the host municipality and the host county prior to commencement of operations. Several farmers and nurseries within the County conduct leaf mulching operations on properties and are inspected by the Burlington County Health Department as required by DEP.

c. Convenience Centers

Convenience centers are defined as sites where one or more containers are located for temporary storage of solid waste and/or recyclable materials brought to the site by persons transporting only their own household solid waste and/or recyclables. N.J.A.C. 7:26-1.1(a)5. Convenience centers are not considered solid waste facilities and are exempt from DEP regulation. Three convenience centers are located in Burlington County and were formerly included in the District Plan as transfer stations prior to the re-designation of these facilities as convenience centers. The three convenience centers are:

(1) Bass River Township Convenience Center

Block 91, Lot 2
Bass River Township
53 South Maple Avenue
Hours of operation: Tuesday, 8:00 a.m. – 5:00 p.m.
Thursday, 1:00 p.m. – 5:00 p.m.
Saturday, 8:00 a.m. – 3:00 p.m.

(2) North Hanover Township Convenience Center

Block 903, Lot 3
North Hanover Township
Route 528 and Meany Road
Hours of operation: Tuesday and Saturday, 7:00 a.m. – 4:30 p.m.

(3) Woodland Township Convenience Center

Block 2703, Lot 2A
Woodland Township
Russ Anderson Road
Hours of operation: Tuesday, 8:00 a.m. – 12:00 p.m.
Friday and Saturday, 7:30 a.m. – 4:30 p.m.

Each convenience center accepts only solid waste generated within its respective municipality delivered by residents in automobiles and pick-up trucks. The facilities also accept bulky wastes and source separated recyclable materials.

d. Research Development and Demonstration Projects (RD&D)

A research development and demonstration project is a project that is designed to assess a new technology or innovative operational process. An RD&D project has a design capacity of less than 100 tons per day of any waste or material and is conducted for a fixed period of time, not to exceed one year. In accordance with N.J.A.C. 7:26-1.7(f), RD&D projects are exempt from the requirement of obtaining a solid waste facility permit, however, a certificate of authority to operate an RD&D project must be issued by DEP prior to commencement of the project. N.J.A.C. 7:26-1.7(f)4 requires RD&D projects to be included in the District Plan of the County in which the project is located and further allows

inclusion by administrative action of the Board of Chosen Freeholders. See Section VIII for the procedures for requesting administrative action to the District Plan.

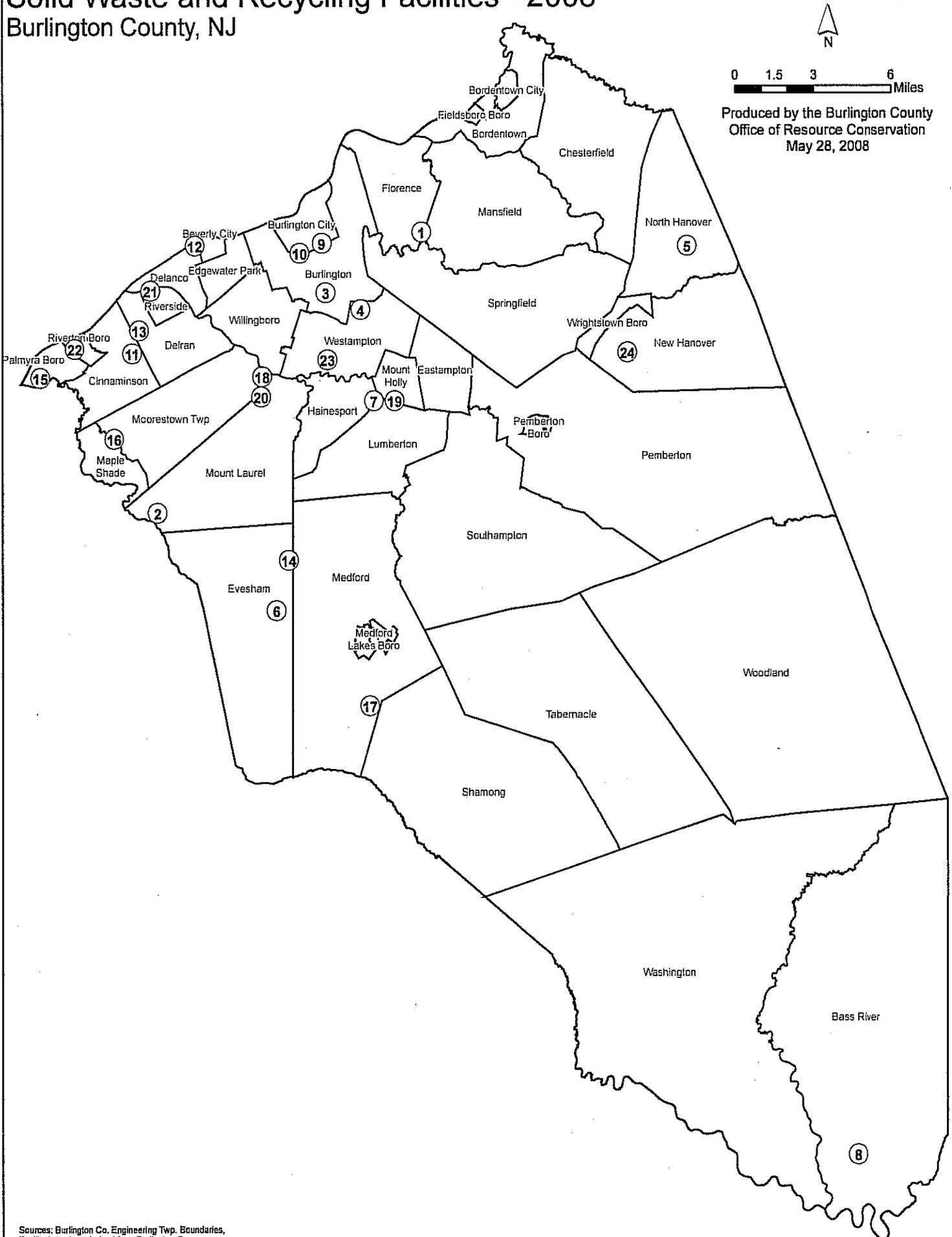
B. Closed Facilities

This section identifies closed solid waste facilities as a matter of record only. Identification of the site of a closed facility in this Plan should not be construed to confer any special status to the site or the former operation. If any entity at any time in the future desires to operate a solid waste facility on one of these sites, the County would consider the proposed facility as a new facility subject to full review under the district planning process. Closed landfill sites are identified in Table 6-3. All other closed facilities and operations are listed in Table 6-4.

Solid Waste and Recycling Facilities - 2008

Burlington County, NJ

Figure 1



Sources: Burlington Co. Engineering Twp. Boundaries,
Facility Locations derived from Burlington Co.
Info. Technology - GIS Section Tax Parcels

Key for Figure 1

| Number | Facility Name | Municipality |
|---------------------------------|---|------------------------|
| <i>Solid Waste</i> | | |
| Resource Recovery Facilities | | |
| 1 | Burlington County Resource Recovery Complex | Florence and Mansfield |
| Transfer Stations | | |
| 2 | Republic Services | Mount Laurel |
| Intermodal Container Facilities | | |
| 3 | Safety Kleen | Burlington Township |
| <i>Recycling</i> | | |
| Class A Recycling Centers | | |
| 4 | Robert C. Shinn, Jr. Recycling Center | Westampton |
| Class B Recycling Centers | | |
| 5 | Herman's Trucking | North Hanover |
| 6 | Mimlitsch Enterprises, Inc. | Evesham |
| 7 | STA SEAL | Lumberton |
| Class C Recycling Centers | | |
| 8 | Bass River Township | Bass River |
| 9 | Burlington City | Burlington City |
| 10 | Burlington Township | Burlington Township |
| 11 | Cinnaminson Township | Cinnaminson |
| 12 | Delanco Township | Delanco |
| 13 | Delran Township | Delran |
| 14 | Evesham Township | Evesham |
| 15 | Fillit Sand and Gravel | Palmyra |
| 16 | Maple Shade Township | Maple Shade |
| 17 | Medford Township | Medford |
| 18 | Moorestown Township | Moorestown |
| 19 | Mount Holly Township | Mount Holly |
| 20 | Mount Laurel Township | Mount Laurel |
| 21 | Riverside Township | Riverside |
| 22 | Riverton Borough | Riverton |
| 23 | Westampton Township | Westampton |
| Class D Recycling Centers | | |
| 24 | Federal Prison Industries, Inc. (UNICOR) | New Hanover |

Burlington County Resource Recovery Facility

Figure 2

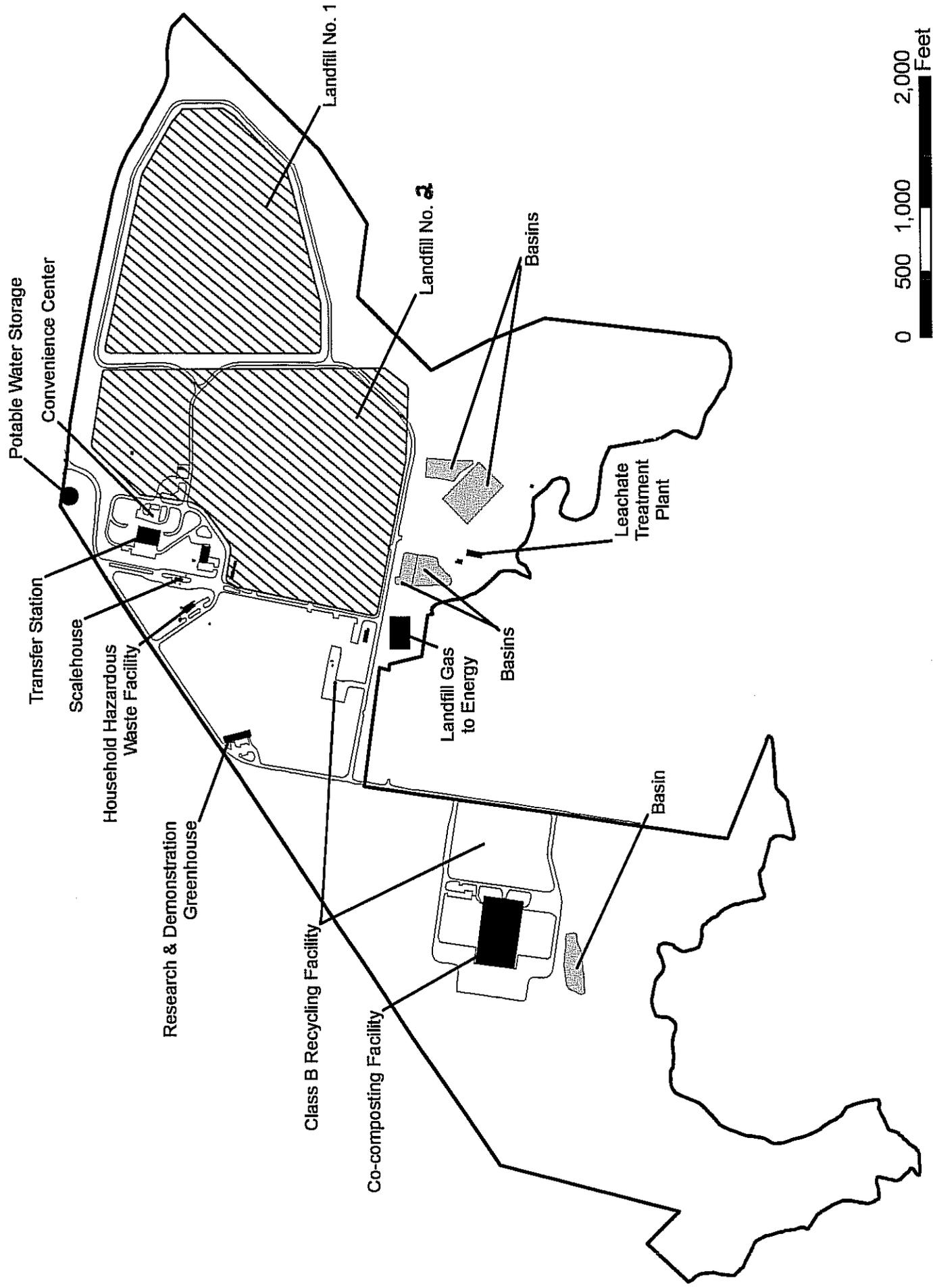


TABLE 6-1
LANDFILL NO. 2 LIFE EXPECTANCY SCENARIOS UNDER VARIOUS IN-PLACE
DENSITIES AND FILL RATES

| Avg. MSW Fill Rate (TPY) 9/11/99 to End | Density lbs MSW/CY | Life (Years) | Date Full | Avg. MSW Fill Rate 1/23/08 to End (TPY) |
|--|---------------------------|---------------------|------------------|--|
| 370,000 | 1,500 | 16.591 | 04/13/16 | 387,100 |
| 360,000 | 1,500 | 17.052 | 09/30/16 | 367,380 |
| 350,000 | 1,500 | 17.539 | 03/26/17 | 348,620 |
| 340,000 | 1,500 | 18.055 | 09/30/17 | 330,730 |
| 370,000 | 1,650 | 18.25 | 12/10/17 | 384,320 |
| 360,000 | 1,650 | 18.757 | 06/13/18 | 366,210 |
| 350,000 | 1,650 | 19.293 | 12/27/18 | 348,830 |
| 340,000 | 1,650 | 19.861 | 07/21/19 | 332,140 |

Note: This table compares achieving in-place waste densities of 1500 lbs/cy and 1650 lbs/cy for Landfill No. 2 at four different fill rates and relates each scenario to a life expectancy. Column E lists the selection of fill rates going forward from 01/23/08, the date of the last aerial topographic survey and landfill capacity report for Landfill No. 2. The shaded row is the scenario that the County believes is most likely to occur going forward as a market participant facility. This scenario assumes an average fill rate of 366,210 TPY from 01/23/08 to 06/13/18 at an in-place density 1650 lbs/cy.

TABLE 6-2
INVENTORY OF SOLID WASTE AND RECYCLING FACILITIES
BURLINGTON COUNTY - 2007

| Facility Type | Facility Name | Facility ID | Authorized Waste | Capacity (Annual) | Municipality | Blocks | Lots | | | | | | |
|----------------------|---|-----------------------|-------------------------------------|---|----------------------|---------|--|--------|------------------------|--------------|---------------------|----------------|--------------------------|
| Solid Waste | Burlington County Resource Recovery Complex | 0318000167 | 10, 12, 13, 13C, 23, 25, 27 and 271 | no permitted limit | Florence | 172.05 | 16.01, 16.02, 17.01, 17.02, 17.03 | | | | | | |
| | | | | | | 173 | 1, 3.01, 4, 5, 6, 8.01, 10 | | | | | | |
| | | | | | | 174 | 2, 3.01, 3.02, 3.03, 3.04, 3.05, 3.06, 4.01, 4.02, 7 | | | | | | |
| | | | | | | 44 | 1, 2, 3, 4, 5.01, 5.02, 5.03, 5.04, 5.05, 5.06, 5.07, 6 | | | | | | |
| Transfer Stations | Republic Services - Mount Laurel | 0324000174 | 10, 13, 13C, 23, 27 | 650 tpd | Mount Laurel | 240 | 2 | | | | | | |
| Intermodal Container | Safety-Kleen | 0306001416 | 27, 72 | 5,000 gpd Type 27 and 5,000 gpd Type 72 | Burlington Township | 120 | 1 | | | | | | |
| Recycling | The Robert C. Shinn, Jr. Recycling Center | 262776 | Class A recyclables | | Westampton | 905 | 1.01 | | | | | | |
| | | | | | | 131962 | trees, tree parts, stumps, brush, wood, treated wood, tires and wallboard. | 173 | 3.01, 8.01 | | | | |
| | | | | | | | | 174 | 3.01, 3.06 | | | | |
| | | | | | | 131974 | concrete, asphalt, brick, block, wood stumps, tree branches and limbs. | 800 | 9.01 | | | | |
| | | | | | | 131954 | tree parts, stumps, brush, leaves and wood pallets. | 44 | 8.02 | | | | |
| | | | | | | | | 14 | 1.01, 1.02, 1.04, 1.05 | | | | |
| | | | | | | 131960 | concrete, asphalt, brick and block. | 42.02 | 1, 2 | | | | |
| | | | | | | Class C | Bass River Township | 133498 | Leaves | 10,000 cy/yr | Bass River | 9A | 2 |
| | | | | | | | | 131938 | Leaves | 10,000 cy/yr | Burlington City | 221 | 9.02 |
| | | | | | | | | 131940 | Leaves | 10,000 cy/yr | Burlington Township | 57, 64, 65, 73 | 1, 13, 1, 1 respectively |
| 133501 | Leaves | 10,000 cy/yr | Cinnaminson | 804 | 12 | | | | | | | | |
| 131949 | Leaves | 10,000 cy/yr | Delanco | 200 | 1 | | | | | | | | |
| 131950 | Leaves | 10,000 cy/yr | Delran | 9 | 29 | | | | | | | | |
| 133503 | Leaves | 10,000 cy/yr | Evesham | 16 | 1.03 | | | | | | | | |
| 131975 | Leaves | 10,000 cy/yr | Palmyra | 156 | 5.01 | | | | | | | | |
| 131974 | Leaves | 10,000 cy/yr | North Hanover | 800 | 9.01 | | | | | | | | |
| 131963 | Leaves | 10,000 cy/yr | Maple Shade | 7701 | 2 | | | | | | | | |
| 131965 | Leaves | do not have exemption | Medford Township | 6505 | 8, 15 | | | | | | | | |
| 193329 | Leaves | 20,000 cy/yr | Moorestown | 8600 | 9, 12 | | | | | | | | |
| 131969 | Leaves | 10,000 cy/yr | Mount Holly | 102 | 50 | | | | | | | | |
| 131972 | Leaves | 10,000 cy/yr | Mount Laurel | 205 | 3 | | | | | | | | |
| 131980 | Leaves | 10,000 cy/yr | Riverside | 101 | 3, 4, 5 | | | | | | | | |
| 131982 | Leaves | 10,000 cy/yr | Riverton | 66 | 1A | | | | | | | | |
| 131990 | Leaves | 10,000 cy/yr | Westampton | 501 | 1 | | | | | | | | |
| Class D | Federal Prison Industries, Inc. (UNICOR) | 155407 | Consumer electronics | 200 tpd | New Hanover Township | 21 | 1 | | | | | | |

TABLE 6-3
CLOSED LANDFILLS

| Facility Name | Location | Street Address | Block | Lot(s) | Acreage | ID | Type | Year Closed | Status |
|-----------------------------------|----------------------|--|-----------|--------------|---------|-------|------|-------------|--|
| Bass River Township Landfill | Bass River Township | River Road | 9A | 2 | 20 | 0301A | M | 1982 | Closure plan under review |
| Beverly City Landfill | Beverly City | Manor Road | 1 | 1, 2, 3, 3A | | | M | | DEP database, not properly closed |
| Big Hill Landfill - BEMS | Southampton Township | Old Forge Road | 2702 | 3, 4, 5 | 43 | 0333A | SS | 1982 | Closure complete, under post closure care |
| Burlington City | Burlington City | Jacksonville Road | 221 | 7, 8, 9B, 10 | 61 | 0305A | M | 1988 | Closure plan under review |
| Burlington Township Landfill | Burlington Township | Lake Avenue | 136 | 5 | 20 | 0306B | M | 1978 | DEP database, not properly closed |
| Delanco Township - C&Z Associates | Delanco Township | Coopertown Road | 1900 | 7 | 32 | * | M | | DEP database, not properly closed |
| Eastampton Township Landfill | Eastampton Township | Forest Avenue | 1600 | 1 | 7 | * | M | | DEP database, not properly closed |
| Evesham Township Landfill | Evesham Township | Tomlinson Mill Road | 50 | 18, 19, 21 | 35 | 0313A | M | 1984 | Closure plan approved, Closure not complete |
| Florence Land Recontouring | Florence Township | Cedar Lane Extension | 173 | 1, 2, 3 | 69 | 0315B | R | 1981 | Listed in 1982 mods as terminated, DEP database superfund site (delisted), properly closed |
| Florence Township Landfill | Florence Township | Main Street | 126.01 | 3 | | 0315U | M | | DEP database, not properly closed |
| Fort Dix #2 | Wrightstown Township | Pemberton-Browns Mills, Juliustown-Browns Mills & Pointville Raods | Area 7200 | | 130 | 0340A | SS | | DEP database, not properly closed |
| Fort Dix Sanitary Landfill | Pemberton Township | Southwest section of Fort Dix near Pemberton Township | Area 7200 | | 126 | 0329B | SS | 1984 | Superfund site |
| Griffin Pipe Products | Florence Township | West Front Street | 156 | 2 | 29 | 0315A | SS | 1998 | Closure complete, under post closure care |

* Not registered with DEP.
M = municipal
R = regional
SS = sole source

TABLE 6-3
CLOSED LANDFILLS

| Facility Name | Location | Street Address | Block | Lot(s) | Acreage | ID | Type | Year Closed | Status |
|---|---|---|-------|------------------------------|---------|-------|------|-------------|---|
| Hoegaanes Industrial Landfill | Cinnaminson Township | Broad Street & Taylors Lane | 307 | 2, 2B | 35 | 0308B | SS | | Listed in 1982 mods as operating, DEP database, not properly closed |
| J. Vinch and Sons Demolition Landfill | Chesterfield | Ward Avenue | 106 | 2 | 8 | 0307A | SS | 1988 | Closure complete, under post closure care |
| Landfill & Development Company | Mount Holly Township Eastampton Township Lumberton Township | Route 38 | 118 | 10, 11, 12, 15.02, 16 | 150 | 0323A | R | 1986 | Superfund site, properly closed |
| | | | 1401 | 1, 18 | | | | | |
| | | | 23 | 1, 2 | | | | | |
| Lumberton Township Landfill | Lumberton Township | Creek Road & Lumberton-Hainesport Road | 26 | 3A | 28 | 0317A | M | 1988 | Closure complete, under post closure care |
| Maple Shade - Bingham Court Landfill | Maple Shade Township | Bingham Court | 66A | 1, 3, 5 Block 77A, Lot 2C | 6 | 0319U | M | | DEP database, not properly closed |
| Maple Shade - Cornell Avenue Landfill | Maple Shade Township | Cornell Avenue | 71 | 4 | 3 | * | M | | |
| Maple Shade - West Roland Avenue | Maple Shade Township | West Roland Avenue | 1A | 3A, 31, 32 | 2 | * | M | | |
| Medford Township East Landfill | Medford Township | Old Goshen-Gravelly Hollow Road | 6404 | 5, 6 | 20 | | | | |
| Medford Township West Landfill | Medford Township | Gravelly Hollow Road | 6405 | 18, Block 6408, Lot 7 | 10 | 0320A | M | 1982 | Closure plan under review |
| Moorestown Township Landfill | Moorestown Township | Creek Road | 322 | 3 | 26 | 0322A | M | 1982 | Closure complete, under post closure care |
| New Lisbon State School Sanitary Landfill | Woodland Township | Burnt Bridge Branch of Burrs Mill Brook | 5501 | 1, 15 | 20 | 0339B | SS | 1980 | |
| North Hanover Township Landfill | North Hanover Township | Meany Road & Route 528 | 902 | 21 | 10 | 0326A | M | 1981 | |
| Palmyra Borough Sanitary Landfill | Palmyra Borough | Route 73 | 156 | 2 | 90 | * | M | | DEP database, not properly closed |
| Parklands | Bordertown Township | Route 206, Rising Sun Road, Dunns Mill Road & Route 295 | 134 | 3, 4, 14 | 94 | 0304A | R | 1989 | Closure complete, under post closure care |

* Not registered with DEP.
M = municipal
R = regional
SS = sole source

TABLE 6-3
CLOSED LANDFILLS

| Facility Name | Location | Street Address | Block | Lot(s) | Acreage | ID | Type | Year Closed | Status |
|--|----------------------|---|-------|-----------------------|---------|-------|------|-------------|---|
| Patsaros Landfill | Burlington Township | Oxmead Road | 139 | 8, 9B | 5 | 0306C | SS | 1987 | Closure plan under review |
| Pemberton Township | Pemberton Township | Whites Bog-Pasadena Road | 906 | 1 | 27 | 0329A | M | 1980 | |
| Sanitary Landfill, Inc. (SCD) | Cinnaminson Township | Taylor's Lane, Grinding Balls Road & Union Landing Road | 702 | 31A, 34, 35, 35A, 35B | 51 | 0308C | R | 1980 | Superfund site |
| Shamong Township (McElhone Landfill) | Shamong Township | Medford-Atsion Road | 10 | 24 | 16 | 0332A | M | 1978 | |
| Tabernacle Township Landfill | Tabernacle Township | Medford Lakes, Oak Shade-Flyatt & Indian Mills Roads | 203 | 1A | 24 | 0335A | M | 1986 | Closure plan under review |
| Tenneco Chemicals, Inc. | Burlington Township | Beverly Road | 95 | 12A | 20 | 0306D | SS | 1984 | Closure plan under review |
| United States Pipe and Foundry Company | Burlington Township | East Pearl Street | 151 | 3 | 12 | 0306A | SS | 2002 | Closure plan approved, closure not complete |
| Washington Township Landfill | Washington Township | Church Road | 54 | 2 | 34 | 0336A | M | 1978 | |
| Winzinger Landfill - Hainesport | Hainesport Township | Hainesport-Lumberton Road | 95 | 3 | 22 | 0316A | M | 1979 | |
| Woodland Township Landfill | Woodland Township | Off of White Horse Road | 20 | 60 | 33 | 0339A | M | 1982 | Closure plan under review |

* Not registered with DEP.
M = municipal
R = regional
SS = sole source

TABLE 6-4
OTHER CLOSED FACILITIES AND OPERATIONS

| Facility Name | Location | Street Address | Block | Lot(s) | Acreage | ID | Year Closed |
|------------------------------------|-----------------------|------------------------------------|----------------------|----------------------------|---------|-----------------|-------------|
| Incinerators | | | | | | | |
| Fort Dix Heat Recovery Incinerator | New Hanover Township | 5800 Area | | | | | 1997 |
| Trofe Incinerator | Mount Laurel Township | Pike Road | 205 | 5 | 6.735 | 0325A * | 1993 |
| Recycling Centers | | | | | | | |
| Eastern Organics | Springfield Township | Saylor's Pond Road | 1901 | 11 | 156 | 0334A or 131985 | 2006 |
| Land Application Sites | | | | | | | |
| Sunnyside Farms | Westampton Township | Woodlane Road | 402 403 6 5 | 5, 6 7, 8, 9 9 12 | 272 | NJ0052621 | 1997 |
| Rancocas State Park | Westampton Township | Rancocas Road | 501 | 3 | 90 | NJ0054305 | 1997 |
| Honeysuckle Farms | Pemberton Township | Route 206 and North Pemberton Road | 778 779 | 1, 2.01, 3 6.01 | 210 | NJ0057801 | 2003 |
| A&L Cesspool | Pemberton Township | Catesville Road | 802 | 1 | 56.99 | 0329D | 1982 |

* Not registered with NJDEP.

VII. WASTE COLLECTION AND TRANSPORTATION

A. Collection

1. Residential Establishments

a. Single Family Dwellings

The collection of residential solid waste from single family dwellings in Burlington County is provided by an array of methods relying upon the public and private sectors. For the most part, this waste stream is collected by a municipal public works department or by private waste hauling companies under contract to the municipality. Hauling contracts are competitively bid in accordance with uniform bid specifications developed by DEP and are awarded for terms of three to five years. In several rural municipalities, individual homeowners contract directly with private waste haulers for collection services. Three rural municipalities in the County do not provide residential waste collection, but provide convenience centers for residents to deliver waste. Separate collection of bulky wastes and vegetative wastes (leaves and other yard wastes) is provided at the election of the municipality, many of which provide these services on a regular scheduled basis during the year. The method of solid waste collection now being provided in each municipality for single family dwellings is listed in Table 7-1.

b. Multi-Family Dwellings

Multi-family dwellings typically rely upon dumpsters, open roll-off and closed roll-off containers for solid waste storage and collection. These containers require specialized trucks to collect and haul the waste to a disposal facility. Historically, this sector of housing was serviced almost exclusively by the private solid waste hauling industry with the service being paid for by the owner of the multi-family complex. The responsibility for the collection of this waste stream changed in 1989 when the "Kelly Bill" (enacted as P.L. 1989 Chapter 299, N.J.S.A. 40:67-23.2 et seq.) was passed, requiring that municipalities collect solid waste in qualified private communities, including condominiums, or reimburse these communities for the cost of providing such service. Later, in an Appellate

Court decision, (WHS Realty Company Inc. v. Township of Morristown, 323 N.J. Super. 553 [App. Div. 1999] cert. denied) the Court held, that a municipal garbage collection ordinance providing service to qualified private communities could not exclude apartment buildings and garden apartment complexes. In response, the New Jersey Legislature enacted P.L. 2001, c. 25 which required all municipalities that provide collection services for single family dwellings also provide collection services to multi-family dwellings by either: 1) directly providing the service through its public works department or through a competitively bid contract; or 2) entering into an agreement with the owner/manager of each multi-family dwelling complex to reimburse it for costs incurred for waste collection. The law provided that the reimbursement amount could be phased in over a five-year period increasing by 20% each year so as not to cause a drastic increase in the municipal tax rate in a single year. The law covered multi-family dwellings with five or more tenants and required the reimbursements to begin in budget year 2002 for municipalities operating on a fiscal calendar year and 2003 for municipalities operating on a fiscal year.

The law further states that in order to be eligible for solid waste collection services or reimbursement for the services, the multi-family dwelling shall be required to comply with all recycling requirements generally applicable to single family dwellings within the municipality. The impacts of the law on the County's Regional Recycling Program are discussed in Section X.

In response to the legislation, most municipalities within Burlington County elected to reimburse the landlords of the multi-family dwellings for the collection of solid waste. In these cases, the landlords continued to contract directly with the private solid waste haulers for services. Eleven municipalities within the County, however, organized a regional collection program to provide service to all multi-family dwellings within the group of municipalities under a competitive bid contract. The regional program is known as the Municipal Apartment Condominium Collection Services (MACCS) of Burlington County. In 2003, a five year collection contract was awarded to Republic

Services, Inc. for providing solid waste containers and collection to 91 multi-family dwellings within the participating municipalities of Maple Shade, Bordentown, Burlington City, Burlington Township, Delran, Edgewater Park, Evesham, Lumberton, Riverside, Willingboro and Wrightstown.

2. Commercial and Institutional Establishments

Solid waste generated at commercial and institutional establishments is collected by private sector solid waste haulers with the exception of small businesses located in the downtown main street areas of some municipalities which are collected by the municipal public works departments. A very limited number of commercial businesses and institutions collect their own waste with their own vehicles. Approximately forty separate companies provide collection services to commercial customers and institutions in Burlington County offering a highly competitive environment. Table 7-2 identifies the private waste hauling companies that currently provide collection services in Burlington County for Waste Types 10, 13, 13C, 23, 25 and 27. Each individual business typically solicits and contracts for service for a term of one to three years.

3. Construction & Demolition Projects

Construction/demolition waste and bulky waste are collected primarily by private solid waste hauling companies. The term of contracts tend to be of short duration, generally less than one year. A number of small building contractors self haul waste generated from their own worksites. Public works departments usually do not collect construction and demolition waste from single family residences.

4. Industrial, Manufacturing and Food Processing Establishments

Industrial and manufacturing establishments that generate Waste type 27 typically collect and store waste in open roll-off containers while food processing establishments generating putrescible waste collect and store in closed roll-off containers. All three categories are serviced by the private solid waste collection industry under one to two year contracts.

5. Trends in Solid Waste Collection

a. Consolidation of Service Area

Solid waste collection and transportation account for approximately 70% of the total cost of solid waste management for municipalities and businesses. This cost is anticipated to increase as the cost of diesel fuel increases. Fuel escalation clauses are now included in all multi-year contracts and cause a high degree of budgetary uncertainty for businesses and municipalities.

Consolidation of collection areas offers opportunities to increase collection efficiencies and reduce costs. Historically, residential waste has been collected on a municipal-wide basis with each municipality acting as an individual contracting unit when utilizing a private collection company. In highly populated areas, this level of consolidation is obviously more efficient and cost effective than having each individual homeowner contract for collection. Larger areas of consolidation involving multiple municipalities may provide even greater savings in collection cost.

Under a program similar to MACCS, fourteen municipalities have joined in a study to evaluate the feasibility and cost-effectiveness of providing collection of single family residential solid waste under one or more regional, competitively bid multi-year collection contracts.

Commercial waste collection may also benefit in terms of collection efficiency and cost savings from consolidation by establishing franchise collection districts which encompass groups of municipalities. In New Jersey, local government historically has not involved itself with providing or coordinating commercial solid waste collection. At the present time there also does not appear to be any existing business association or other entity working to organize consolidation of waste from commercial establishments. This situation may change as the cost of commercial waste collection increases and businesses seek to reduce costs.

b. Natural Gas Trucks and Biomethane Fuel

Heavy duty vehicle emissions standards, established under the Clean Air Act, have been ratcheting down the allowable emissions from refuse collection trucks since 2002. The most recent reduction occurred last year when all new heavy duty trucks sold in 2007 and after must meet new reduced emissions standards for NO_x and fine particulates. In 2010, these standards plummet even lower.

In New Jersey, older refuse trucks are being required to reduce diesel emissions. In 2005, the New Jersey Legislature passed the Diesel Retrofit Law, N.J.S.A 26: 2C-8.26 et seq., which requires end of exhaust pipe control devices for fine particulates for all publicly owned and privately owned refuse trucks used in public contracts.

In response to both the high cost of diesel fuel and increasingly stringent air emission standards, there is a growing interest within the solid waste industry to utilize natural gas powered vehicles. Natural gas engines already meet the 2010 EPA heavy duty vehicle emissions standards. Natural gas is less expensive than diesel and natural gas engines can be fueled with biomethane derived from the anaerobic digestion of organic waste, thus potentially closing the recycling loop in solid waste collection.

In the California South Coast Air Quality Management District, all refuse collection and transfer trucks are required to utilize natural gas powered engines as a means of improving air quality within the district. As a cost control measure, Waste Management, Inc. announced in June 2008 that it will construct a 13,000 gallon per day liquid biomethane facility at its Altamont Landfill in California. Norcal, another large refuse collection company in California, which has a contract to collect food waste in the City of San Francisco, announced in early 2008 that it is evaluating anaerobic digestion technologies to produce biomethane for its fleet of natural gas trucks.

On the East Coast, the shift from natural gas powered refuse collection vehicles is beginning to occur purely for economic reasons. In 2007 Smithtown, N.Y. and in 2008 Brook Haven, N.Y. issued bids for refuse collection which required that the

prospective contractor provide and utilize natural gas trucks. The townships each awarded long-term (7 year) contracts for natural gas to be utilized by the hauler.

In New Jersey, Hamilton Township, Mercer County recently bid and awarded a collection contract requiring natural gas trucks and will separately procure the fuel. Atlantic County Utilities Authority announced that it too intends to purchase a fleet of natural gas refuse collection vehicles, open a public access natural gas fueling station and separately procure a multi-year natural gas fuel contract.

In January 2008, 175 public and private solid waste haulers attended a Statewide forum held at Rutgers University to hear the latest information on natural gas refuse trucks and the production and use of biomethane in the US and Europe. Burlington County and the Rutgers EcoComplex played an important role in advancing the production and use of biomethane as a transportation fuel in refuse vehicles. In 2005, biogas from the County's landfill was processed at the Rutgers EcoComplex utilizing the Acron Technology Inc. CO₂ Wash™ landfill gas cleanup technology to produce transportation grade liquid biomethane. Two natural gas Mack Trucks, owned by Waste Management, utilized the biomethane as fuel to collect refuse within the County during a five month demonstration project. This was the first time that liquid biomethane had ever been produced from landfill gas and utilized as a transportation fuel. The demonstration project partners included Mack Truck/AB Volvo, Air Products & Chemical, Chart Industries, Acron Technologies, Waste Management, Burlington County, Rutgers EcoComplex and the United States Department of Energy – Brookhaven Laboratories. Mack Truck/AB Volvo has since licensed the technology and plans to deploy it at landfills throughout the United States and Europe.

B. Transfer Stations

Once collected, waste is transported to an end disposal facility in one of two ways. The waste can be transported directly to the end disposal facility or it can be delivered to a more locally sited transfer station, where the waste is off loaded, consolidated with

additional waste and placed in larger transfer trailers for a longer haul trip to the end disposal facility.

In Burlington County, Republic Waste Services of New Jersey operates a transfer station located in Mount Laurel Township. This facility, which operates at a capacity of 650 tons per day, transfers waste primarily to the Modern Landfill in York, PA, which is owned by Republic Services (115 miles one way), Covanta Resource Recovery Facility in Chester, PA, (38 miles one way), and the Burlington County Resource Recovery Complex (15 miles one way). This transfer station is ideally located to service a highly populated area of Camden, Gloucester and Burlington Counties and, indeed, receives a considerable amount of residential and commercial solid waste generated within this area, particularly in Burlington County. The only waste received from this transfer station at the Complex, however, is residential waste from Evesham Township directed to the Complex pursuant to Municipal Solid Waste Services Agreement. All other Burlington County waste received at the Transfer Station is transported to the two other aforementioned out-of-county facilities. This situation may change in the future as the cost of diesel fuel rises and the margin in total transport and disposal cost narrows.

C. Rail Transfer Facilities

Solid waste may also be economically transported by railroad after being locally collected. Rail transport is typically considered the most economical means of waste transport to facilities located distances greater than two hundred miles away. A rail transfer facility owned and operated by the Hainesport Industrial Railroad, LLC (HIRR) opened in the Hainesport Industrial Park in Hainesport Township in 2006. HIRR accepts construction and demolition waste, Type 13 C and bulky waste, Type 13, and processes the waste to remove metal, wood and cardboard prior to shipment to landfills in Ohio. The facility is currently receiving waste from the counties of Atlantic, Burlington, Camden, Cumberland, Essex, Gloucester, Hudson, Hunterdon, Mercer, Middlesex, Monmouth, Ocean, Salem, Somerset, and Union.

The regulatory status of this facility and others like it in New Jersey is now under review by the courts and federal legislators. Federal law grants the Surface Transportation Board exclusive jurisdiction over the regulation of rail carriers. This preemption is interpreted to mean that rail carriers are not required to obtain approvals and permits that would usually be required by states and local government entities as they may be used to deny or interfere with a railroad's ability to conduct its operation. This facility has not been included in the Burlington County District Solid Waste Management Plan nor has it received any approval from DEP to operate as a solid waste facility.

TABLE 7-1
MUNICIPAL SINGLE FAMILY RESIDENTIAL WASTE COLLECTION AGENCY

| Code | Municipality | Type of Collection | Hauler |
|-------------|---------------------|---------------------------|--|
| 0301 | Bass River * | Private | Transformation Services |
| 0302 | Beverly | Private | South Jersey Sanitation |
| 0303 | Bordentown City | Public | Public Works Department |
| 0304 | Bordentown Township | Private | Central Jersey Waste |
| 0305 | Burlington City | Private | Waste Management, Trenton |
| 0306 | Burlington Township | Public | Public Works Department |
| 0307 | Chesterfield | Individual | Contracted by Individual Homeowner |
| 0308 | Cinnaminson | Private | South Jersey Sanitation |
| 0309 | Delanco | Private | South Jersey Sanitation |
| 0310 | Delran | Private | Republic Services, Mt. Laurel Division |
| 0311 | Eastampton | Private | Waste Management |
| 0312 | Edgewater Park | Private | South Jersey Sanitation |
| 0313 | Evesham | Private | Republic Services |
| 0314 | Fieldsboro | Private | Garden State Disposal |
| 0315 | Florence | Private | Garden State Disposal |
| 0316 | Hainesport | Private | Republic Services |
| 0317 | Lumberton | Public | Public Works Department |
| 0318 | Mansfield | Public | Public Works Department |
| 0319 | Maple Shade | Private | South Jersey Sanitation |
| 0320 | Medford Township | Public | Public Works Department |
| 0321 | Medford Lakes | Public | Public Works Department |
| 0322 | Moorestown | Public | Public Works Department |
| 0323 | Mount Holly | Private | Garden State Disposal |
| 0324 | Mount Laurel | Public | Public Works Department |
| 0325 | New Hanover | Individual | Contracted by Individual Homeowner |
| 0326 | North Hanover* | Private | Waste Management/and Contract by Homeowner |
| 0327 | Palmyra | Private | Waste Management, Trenton |
| 0328 | Pemberton Borough | Private | Waste Management, Trenton |
| 0329 | Pemberton Township | Private | South Jersey Sanitation |
| 0330 | Riverside | Private | South Jersey Sanitation |
| 0331 | Riverton | Private | Waste Management, Trenton |
| 0332 | Shamong | Individual | Contracted by Individual Homeowner |
| 0333 | Southampton | Public | Public Works Department |
| 0334 | Springfield | Private | Garden State Disposal |
| 0335 | Tabernacle | Private | South Jersey Sanitation |
| 0336 | Washington | Private | Waste Management, Trenton |
| 0337 | Westampton | Private | South Jersey Sanitation |
| 0338 | Willingboro | Private | Waste Management, Trenton |
| 0339 | Woodland * | Private | Woolston Construction |
| 0340 | Wrightstown | Public | Public Works Department |

* Municipality has a publicly owned convenience center. Private waste haulers provide and service roll-off containers at these locations.

**TABLE 7-2
PRIVATE SOLID WASTE COLLECTION COMPANIES
SERVICING BURLINGTON COUNTY**

| |
|---------------------------------------|
| All Star Waste Disposal |
| American Disposal Systems |
| Americycle Disposal |
| Bob Drayton Disposal |
| Carnevale Disposal |
| Carroll Industries |
| Central Jersey Waste & Recycle |
| Cifaloglio Disposal |
| Eastern Environmental Waste |
| Five County Carting |
| Freehold Cartage Disposal |
| Garden State |
| Horizon Disposal |
| Integrated Waste Systems (IWS) |
| J. Vinch & Son |
| J.I.S.C.O. Disposal |
| Jack Robinson Waste |
| Kevco Disposal |
| Lieze Trash Removal |
| Mancini Disposal & Recycling |
| Messner Trash Removal |
| Nini Disposal |
| Pig Farm Recycling |
| PMS Waste |
| R. Shisler Inc. |
| Republic Waste Services, Inc. |
| Riverfront Recycling |
| Robert T. Winzinger, Inc. |
| Sakoutis Bros. Disposal |
| Schiani Disposal |
| Silver Spur Waste Removal |
| Slammin Canz Inc. |
| South Jersey Sanitation |
| TCM Disposal |
| Teesdale Trash Removal |
| Tri-State Carting |
| Walkers Container Service |
| Waste Management, Camden Division |
| Waste Management, Toms River Division |
| Waste Management, Trenton Division |
| William Miller & Son Disposal |
| Woolston Construction, Inc. |

VIII. PROCEDURES, STANDARDS AND IMPLEMENTATION

A. Designation of Implementation Authority

Pursuant to N.J.S.A. 13:1E-1 et seq., responsibility for the formulation and implementation of district solid waste management plans rests with the Board of Chosen Freeholders. The Burlington County Freeholders have designated the Division of Solid Waste Management within the Department of Resource Conservation to be the agency responsible for development and implementation of the District Plan.

B. Solid Waste Advisory Council

The Act requires that a solid waste advisory council be appointed in each county to assist in the development and formulation of the district solid waste management plan and establishes minimum criteria for the composition of the council. The size and composition of the Burlington County Solid Waste Advisory Council (SWAC) is determined annually by the Board, and includes, at a minimum, a mayor of one of the municipalities in the County that hosts a major solid waste disposal facility or their designee, a representative of the solid waste collection and disposal industry, a sludge generator, a member of the agricultural community, an environmentalist, a private citizen and County and State government officials. SWAC meets on an as-needed basis to review, consider and advise the Board on proposed amendments and updates to the Plan and may meet on a regular schedule to consider matters relevant to solid waste planning and recycling in the County.

C. Public Participation Procedures

1. Objectives

The objectives of the Burlington County public information and participation program are as follows:

- a. Inform and involve all sectors of the population that are likely to be affected by the solid waste management planning process.

b. Establish clearly defined mechanisms for citizens, environmental organizations and industry representatives to provide input and submit comments to the County regarding formulation, revision, update and implementation of the District Plan.

c. Develop a clear mechanism through which specific concerns can be identified, considered, evaluated and resolved.

d. Develop public support and confidence that all views will be considered in the solid waste planning and implementation process.

e. Keep the public informed of the progress of solid waste management planning and plan implementation, major issues relating to waste management and proposed plan modifications.

2. Solid Waste Advisory Council

The County will continue to rely upon SWAC as the primary mechanism for public involvement in the development and implementation of the District Plan. All meetings of SWAC are open to the public.

3. Plan Amendments

Section VIII. D sets forth procedures for consideration of amendments to the District Plan. In order to afford the public a greater opportunity for input, these procedures extend beyond the minimum requirements of the Act by calling for an informal public information meeting in addition to the required public hearing, distribution of the proposed plan amendment and notice of the public hearing to an extensive mailing list, and deposition of the proposed amendment and all reports supporting the amendment at every public library in the County. Moreover, following the public hearing and comment period, County staff is required to prepare a report in response to comments received for submission to the Board for its review and consideration prior to final Board action on the proposed amendment. This response document is distributed to all persons submitting written comments on the amendment together with the resolution by the Board adopting or rejecting the proposed amendment as required by N.J.S.A 13:1E-23e.

4. Media Communications

An important aspect of maintaining a communications link with the public is through the use of available media, including newsletters, press releases and personal contact with local newspapers, radio and television.

D. Procedures for Consideration of Amendments to the District Plan

1. Applicability

N.J.S.A. 13:1E-20a.(1) requires that every solid waste management plan contain provisions for automatic review of the plan not less than once every two years following approval of the plan by the Commissioner. If, upon such review, the Board determines that the plan or any part thereof, is inadequate for the purposes for which it was intended, the Board shall formulate a new plan or modify the existing plan.

The County will adopt amendments to the Plan based upon an ongoing review if: (a) the County finds an amendment necessary to update information or to address new or unanticipated situations; (b) DEP directs the County to amend the Plan; (c) an amendment is otherwise required by law; or (d) third parties request an amendment to include a new solid waste facility or an expansion of an existing facility.

In considering plan amendments, the County shall follow the procedures set forth below. The County may provide or require additional opportunity for public participation if found to be necessary or desirable, including additional public meetings and public hearings, informal consultations, and consultations with SWAC. The County reserves the right to waive any of these procedural requirements when considering plan amendments provided that the notice and hearing requirements of the Act are met.

2. Plan Amendments to Include New Facilities, Sites and/or Facility Expansions in the Plan

N.J.S.A. 13:1E-21b(3) requires that all proposed solid waste facilities be included in the applicable district plan. N.J.S.A. 13:1E-4b and 26 prohibit the construction or operation of any solid waste facility or issuance of a solid waste facility permit or approval

by DEP for a facility that is not consistent with the District Plan. Although the District Plan includes all facilities that are necessary to meet the present solid waste processing and disposal needs of the County, situations arise where either the County or a third party proposes construction of a new facility or expansion of an existing facility. In these cases, the following procedures shall apply:

a. A pre-application conference to review facility siting requirements and operational standards set forth in the District Plan is encouraged but is not required.

b. A complete application for amendment to the District Plan shall consist of the following:

- (1) All the information required by New Jersey Statute or regulation;
- (2) A report in support of the application which shall include:
 - (a) A discussion of the need for the proposed facility and the relationship between the proposed facility and State and County solid waste planning;
 - (b) A list of sources and types of waste proposed to be accepted at the facility;
 - (c) Analysis of existing markets, if the proposed facility is a recycling center or resource recovery facility;
 - (d) A study sufficient to show that substantive facility standards set forth in Section VIII.I. are met;
- (3) Preliminary or conceptual engineering plans including a general site plan;
- (4) Agreed benefits to be afforded to the host municipality pursuant to N.J.S.A. 13:1E-28 or, if no agreement, the applicant's best offer;
- (5) A preliminary Environmental Impact Statement, including a health risk assessment and an emergency plan, as required by DEP;

(6) The disclosure statement or license required by N.J.S.A. 13:1E-128;

(7) A nonrefundable filing fee to defer cost of review if the Board of Chosen Freeholders elects to establish a fee schedule by duly adopted resolution. The fee may include the cost of experts retained by the Board to assist the County in review of the application.

c. The County shall review the application for completeness within thirty (30) calendar days of receipt. If additional information is required, the County shall notify the applicant in writing and the applicant shall have thirty (30) calendar days to supply the information requested.

d. If the County determines that, on the face of the application, the proposed facility does not comply with substantive facility siting standards, it may deny the application. Said denial shall be in writing and state that it is the final action by the County.

e. If the County determines the application complete, it shall so notify the applicant in writing and request that the applicant supply sufficient number of copies of the application for public distribution and review.

f. Following a determination of completeness, the County shall:

(1) Consult with the applicant and the host municipality to determine a convenient time and place for a SWAC meeting and public information meeting, if required by the County. All expenses incurred in securing the site and conducting the public information meeting shall be met by the applicant;

(2) Schedule a date for the Public Hearing to be held before the Board of Chosen Freeholders;

(3) Make arrangements to obtain a stenographer at applicant's expense for the public information meeting, SWAC meeting and public hearing;

(4) Prepare a proposed plan amendment;

(5) Prepare a Notice of Public Hearing pursuant to N.J.S.A.

13:1E-23 which shall include:

(a) a description of the project;

(b) the generally recognized street address of the proposed facility;

(c) the block and lot location of the proposed facility;

(d) the date, time and location of public information meeting;

(e) the date, time and location of public hearing;

(f) the location of all depositories for public inspection of the complete application and all supporting documentation; and

(g) the deadline for submission of written comments on the proposed application.

(6) Cause notice to be published in at least two newspapers of general circulation within the County, one of which must be the official newspaper of Burlington County as designated annually by the Board of Chosen Freeholders. Said notice shall be published once each week for two consecutive weeks with the second notice appearing no less than ten days before the public hearing to be held before the Board and no less than two days before the public information meeting if required hereunder.

(7) Distribute the application, notice of public hearing and proposed plan amendment to:

(a) each member of the Burlington County Board of Chosen Freeholders;

(b) the Mayor of the municipality in which the facility is proposed to be located and all other municipalities located within a one mile radius of the proposed facility; and

(c) all relevant County Departments.

(8) Mail or otherwise serve upon each of the following a copy of the notice of public hearing and proposed plan amendment:

(a) each SWAC member;

(b) all property owners within 200 feet of the proposed site of the facility as well as the current owner of each parcel of property on which the proposed facility is to be located;

(c) each public library within the County, with a request that it serve as a depository for the public notice and proposed plan amendment;

(d) the Mayor of every municipality in Burlington County;

(e) the New Jersey Department of Environmental Protection;

(f) the New Jersey Pinelands Commission, if applicable;

(g) the Delaware Valley Regional Planning Commission;

(h) the Delaware River Basin Commission; and

(i) other affected parties as the County may deem necessary on a case by case basis.

g. Public Information Meeting

(1) The applicant shall attend a public information meeting, if required.

(2) The public information meeting may be held in conjunction with the meeting of the SWAC.

(3) A stenographer must be provided at each public information meeting or continuation(s) of said meeting and a transcript of each meeting(s) provided to the County at the applicant's cost.

(4) The applicant may be required by the County to have a representative from each consultant that participated in the preparation of the application present at each public information meeting to answer any questions that may be raised by the County or members of the public.

(5) If any public information meeting cannot be completed within the arranged time, the County will schedule a time for continuation of said meeting.

h. Solid Waste Advisory Council Meeting

(1) A meeting of the County Solid Waste Advisory Council shall be scheduled prior to the public hearing to be held before the Board of Chosen Freeholders.

(2) A stenographer and a transcript of the meeting must be provided at the applicant's cost.

(3) The applicant and a representative from each consultant that participated in the preparation of the application must attend said meeting, present an overview of the application and be available to answer all questions raised by SWAC.

(4) Following the meeting, SWAC shall vote to recommend that the proposed amendment be adopted, rejected, or adopted with modifications. Such recommendation shall be reported to the Board prior to the public hearing.

i. Written Comment Period

(1) The County shall accept written comments on the application until the close of business on the Friday preceding the date scheduled for the public hearing.

j. Response Document

(1) The County will prepare a response document addressing written and oral comments received during the comment period, the public information meeting and SWAC meeting. If possible, the response document will be provided to the Board for its consideration prior to the public hearing.

k. Public Hearing

(1) A stenographer must be provided at the public hearing and a transcript of the hearing provided to the County at the applicant's cost.

(2) The public hearing to be held before the Board of Chosen Freeholders pursuant to N.J.S.A. 13:1E-23 shall be governed by the following procedures:

(a) The Director of the Board shall preside as the hearing officer.

(b) Any member of the public desiring to be heard shall register in advance.

(c) The hearing officer may impose reasonable limitations on the time allowed for any speaker.

(d) The applicant or a representative from the consultant that prepared the application shall provide a presentation of the application and be available to answer all questions raised by the Board or the public.

(e) Public officials shall be called upon immediately following the applicant's presentation followed by private individuals in the order in which they were registered to speak.

(f) Speakers shall generally be limited to a single opportunity to be heard provided that the applicant is given a reasonable opportunity to respond to comments. The hearing officer may afford any person additional opportunity to be heard.

(g) The Board may recess the hearing from time to time.

(h) At the close of the public comment portion of the hearing, the Board may:

i. vote to approve, approve with modifications or reject the proposed amendment to the plan;

ii. delay action on the application pending examination of written materials submitted at the hearing and consideration of comments provided; or

iii. hold the record open for submission of additional written comments.

1. If the Board defers a decision on the proposed plan amendment based upon the comments received, then the County will prepare a supplement to the response document addressing comments received during the public hearing and any additional written comments submitted to the Board if it determines to extend the written comment period. The response document will be provided to the Board for its consideration prior to final action on the application.

m. Upon final approval or approval with modification by the Board, the County shall:

(1) transmit the plan amendment, the Board's resolution approving the amendment and the record supporting its action to the Department of Environmental Protection;

(2) serve upon each person who filed a written objection at or prior to the public hearing, a copy of the resolution adopting the amendment.

n. The Board shall act upon an administratively complete application within 180 days.

3. Procedures for Plan Amendments to Address Emergency or Unexpected Situations Not Involving a New Facility Site, New Facility or Facility Expansion

Plan amendments addressing unanticipated situations, shall be prepared by the Division of Solid Waste Management upon its preliminary determination that the Plan or a portion thereof is inadequate for the purposes for which it was intended.

Following preparation of a Plan amendment hereunder, the County shall comply with the procedures set forth in Section VIII.D.2.a. through VIII.D.2.m., as applicable, provided however that all references to “applications” shall refer only to the proposed amendment and public meetings shall be held at any location the County deems appropriate.

4. Administrative Actions

N.J.A.C. 7:26-6.11 allows a county to amend its district solid waste management plan for limited, specified purposes by way of administrative action. The regulations simply require that a county submit a letter to DEP describing in detail the action to be taken to amend the district plan. DEP is required to approve, modify or reject an administrative action within 30 days of receipt of the letter.

An administrative action to amend the Burlington County District Solid Waste Management Plan shall be approved by duly adopted resolution of the Board of Chosen Freeholders. A certified copy of the resolution shall be submitted with the letter to DEP describing the action taken.

5. Procedures for Inclusion of Class C Composting Facilities

A blanket inclusion policy for vegetative waste composting facilities was included in the District Plan in 1984 to encourage establishment of composting facilities by streamlining the approval process. Since that time, DEP amended its regulations to exempt facilities that propose to compost less than 10,000 cubic yards per year of yard trimmings from the requirement to obtain a permit (now, a general or limited approval as a recycling center). Although exempt from DEP permitting requirements, such facilities are still required to be included in the District Plan. N.J.A.C. 7:26-6.11(see below) allows the County to take administrative action to include this type of facility in the Plan. Therefore, this blanket inclusion policy shall apply only to those facilities that propose to accept more than 10,000 cubic yards per year of vegetative waste and are not eligible for the exemption provided in N.J.A.C. 26-3.

Any composting facility proposed for the composting of residential leaves and grass clippings, vegetative waste from farms, plant nurseries and greenhouses produced from the raising of plants which includes such crop residue as plant stalks, hulls, leaves and tree wastes processed through a wood chipper is consistent with the Burlington County District Solid Waste Management Plan provided that:

a. The host municipality, solid waste management district and the Pinelands Commission, where applicable, are notified in writing of the proposed application and each receive a full copy of the complete application submitted to the DEP including all engineering designs, reports, maps, etc., which DEP requires of the applicant. If the proposed site of operation is located in the Pinelands area, the Pinelands Commission is notified and receives the same.

b. The applicant publish two (2) notices of the proposed application, once each week for two (2) consecutive weeks, in a newspaper of general circulation within the host municipality. The notice shall set forth:

(1) The nature of the project;

(2) The block and lot number of the site location;
(3) The generally recognized address of the site;
(4) The location of the depositories (which in all cases must be the municipal building and the Division of Solid Waste Management) for inspection of the complete application and supporting documents;

(5) A statement that written comments on the proposed application will be accepted by the Division of Solid Waste Management for a period of 30 days from the date of the first notice; and

(6) No objections to the site location are raised by the host municipality, the solid waste management district, the Pinelands Commission, if applicable, or any other person; provided further however, that if any such objection be raised, the proposed site and facility must be subject to the formal plan amendment process pursuant to N.J.S.A. 13:1E-23 and 24 including notice, public hearing, Freeholder Board approval and subsequent DEP approval prior to construction of the facility, N.J.S.A. 13:1E-26, or to the issuance of any Certificate of Approval Registration and Engineering Design pursuant to N.J.S.A 13:1E-4 and 5.

An applicant that has satisfied the procedural requirements outlined in Items a. and b. above and there are no objections raised, may then submit the required information to DEP for review accompanied by a letter from the County stating the proposed facility's consistency with the District Plan. If a proposed application raises objections, the County must amend its Plan to formally consider inclusion of the facility.

E. General Policies of the Solid Waste Management District

1. Policy Related to Transfer Stations

To honor the contractual obligations of such municipalities that have voluntarily entered into Municipal Solid Waste Service Agreements with the County, transfer stations included in the Plan shall dispose of solid waste generated within Burlington County municipalities at the Burlington County Resource Recovery Complex.

Where a transfer station receives solid waste from one or more sources which are contractually obligated to be disposed of at the Burlington County Resource Recovery Complex, the transfer station shall keep a record of the amount of solid waste received from each source and, for each source, shall distribute an equal amount of solid waste to the Burlington County Resource Recovery Complex for disposal. Solid Waste Facility Monthly Disposal and Materials Recovery Reports shall be transmitted to the disposal facility on a monthly basis and wastes received and disposed in kind shall be reconciled no less than quarterly.

This policy was previously approved by the Department in its Certification issued 4/18/83.

2. Compliance History Policy

No new solid waste facility or expansion of an existing facility shall be included in the Plan and no existing facility shall continue to be included in the Plan unless the owner and operator of said existing and proposed solid waste facilities exhibit sufficient reliability, expertise, and competency to operate the facility to be included in the Plan, given the potential for harm to human health and the environment which could result from the irresponsible operation thereof, and if no prior record exists, the applicant demonstrates a likelihood to exhibit such reliability, expertise and competence.

This policy was previously approved by the Department in its Modified Certification issued 6/15/88.

3. Policy with regard to siting new facilities within the County or facility expansions to serve needs of those outside the County

The County's disposal capacity needs for the next ten (10) years will be satisfied by the Resource Recovery Complex. However, the County contemplates that a situation may arise where a party may propose a new facility or facility expansion to meet the needs of out-of-county users or other needs. Consistent with the City of Philadelphia v. New Jersey, 473 U.S. 617 (1978), the County cannot arbitrarily exclude out-of-county waste.

Before such facility sites may be included in the Plan pursuant to N.J.S.A 13:1E-21.b(3), the County's policy requires assurance that (a) the environment is protected and (b) the requirements of the Act are satisfied. The County considers particularly important the policy inherent in the Act and N.J.S.A. 13:1E-21.b(3) that the burden of waste disposal be equitably distributed within the region such that waste may only be accepted from areas where there is an absence of sufficient suitable sites, and then only pursuant to a waste flow contract. Similarly, the County will require maximum use of recycling and resource recovery. Users of any such proposed site will therefore be required to implement resource recovery and recycling programs at least equivalent to those required for in-county sources. The County has implemented this strategy by developing procedures for consideration of amendments to the District Plan and the standards to be utilized in facility siting. These standards should be considered a part of this strategy. The same standards will apply to sludge and solid waste facilities.

This policy was previously approved by the Department in its Modified Certification issued 6/15/88.

F. Substantive Facility Standards

1. Disposal Facility Siting Policy

All new solid waste facilities for the disposal or storage of solid waste on the land (land disposal facilities) and land disposal facility expansions under the jurisdiction of the Burlington County Solid Waste Management District must be confined to the recognized non-aquifer or clay aquiclude, outcrop areas within the County. In Burlington County, these non-aquifer outcrop areas include the outcrops of the Manasquan Formation, the Vincentown Formation, the Hornerstown Formation, the Navesink Formation, the Marshalltown Formation, the Woodbury Clay Formation and the Merchantville Formation. Location of disposal facilities in the aquiclude outcrops must be such that a minimum of forty (40) feet of in situ clay underlies the bottom of the disposal facility and the next underlying aquifer.

This siting policy should in no way be construed to mean that land disposal facilities located in accordance with this policy will be exempt from the requirements of the New Jersey Department of Environmental Protection for containment liners.

The intent of this siting policy is to utilize naturally occurring geologic features, specifically the outcrops of clay aquicludes, as a back-up protection to manmade containment liners. Maximum protection of the following major aquifer systems will result from this siting policy: the Cohansey-Kirkwood Aquifer System, the Mt. Laurel-Wenonah Aquifer System, the Englishtown Sand Aquifer System and the Magothy-Raritan Aquifer System.

NJDEP permitted land application and marketing of residual (which includes sewage sludge, compost or co-compost products) and vegetative waste composting facilities are specifically exempted from this policy. All other land disposal facilities, including landfills, impoundments, waste piles, and even facilities not normally required to have containment liners, such as construction/demolition waste disposal facilities, must be confined to the above mentioned aquiclude outcrops.

This policy was previously approved by the Department in its Certification issued 10/27/80.

2. Specific Standards Applicable to Putrescible Waste Composting Facilities

The handling, processing and recycling of putrescible organic waste generates gaseous emissions and aqueous discharges that must be adequately controlled in order to protect public health and the environment and minimize offensive, obnoxious odors. The County has determined it necessary to establish specific standards for these facilities to ensure that such protection is provided.

This policy shall apply to all new facilities proposing to compost any of the following materials in an annual aggregate amount of 10,000 tons or more per year: 1) food waste from residential, commercial or institutional establishments, food processing

facilities, supermarkets and food distribution centers, animal slaughterhouses, canneries, food packing facilities and similar facilities handling food or food co-products or by-products; 2) organic industrial waste; and 3) any combination thereof.

An enclosed system for the receipt and mixing of waste shall be provided. The enclosed system design shall provide that all air within the enclosure is collected under negative pressure and treated through the use of biological, chemical or thermal processes appropriately designed and sized for the volume of air to be treated so that the facility will not cause off-site odors.

The design of the enclosed system shall also provide for an impervious surface and infrastructure for the collection of all free liquids, process water, leachate and condensate generated during the receipt and processing of all waste materials.

3. Specific Standards Applicable to Land Application Facilities

All new facilities for the land application of sewage sludge, septage, and food processing waste shall satisfy the standards of N.J.A.C. 7:14A-20 et seq.

IX. SOURCE REDUCTION

Source reduction is the first tier in the hierarchy of solid waste management practices established by DEP in the Statewide Plan Update. Source reduction describes those activities that result in a decrease of the amount of waste, by weight or volume, or toxicity of waste entering the waste stream. Source reduction may also encompass activities intended to increase product durability, reusability and reparability. Source reduction measures to be implemented in the Burlington County Solid Waste Management District are identified below.

A. Yard Waste

Yard waste comprises 10% of the total waste stream. Not only is yard waste expensive to collect, but facilities for the processing of waste are difficult to site and can be costly to operate. In addition, the collection and transportation of these materials, particularly if facilities cannot be located in close proximity to the source of generation, contribute significantly to greenhouse gas emissions. From every objective form of measurement, reducing the volume of yard waste at the source is the best management solution for this waste stream.

The County will continue to work to promote source reduction of yard waste by:

1. Encouraging the use of backyard composting activities for leaf and yard waste through backyard composting workshops and sale of compost bins to residents.
2. Conducting educational programs and disseminating publications on the benefits of vermiculture in schools and at community events.
3. Conducting educational programs that encourage the use of mulching mowers to reduce grass generation and “Cut It and Leave It” as the most effective means of managing grass clippings.
4. Informing the public on slower growing grasses and non-lawn alternatives, including xeriscaping. Xeriscaping is the patented name for an approach to landscaping that

involves use of drought-resistant or heat-tolerant, generally native, plants in dry areas to reduce the need for watering.

B. Hazardous Waste Programs

1. Current Hazardous Waste Diversion and Source Separations Measures

Many jobs around the home require the use of products containing hazardous components. Certain paints, cleaners, stains and varnishes, car batteries, motor oil, and pesticides are some of these products. The unused portions of these products that require disposal are known as household hazardous waste (HHW). According to the EPA, an average home can accumulate as much as 100 pounds of household hazardous waste in the basement or garage and in storage closets, presenting hazards to children, pets and the environment.

Under federal and state law, household hazardous waste is not regulated as a hazardous waste and can be disposed of with regular household solid waste. The mixing of household hazardous waste with regular household waste has the potential to cause physical injury to the sanitation workers during collection, may react with other waste in refuse collection vehicles causing fire, or emit dangerous fumes from chemical reactions at the waste handling facility. Moreover, if not mixed with household solid waste, these hazardous products are commonly disposed of by pouring them down the drain, on the ground, into storm sewers or into septic systems. When disposed of in this manner, there is great potential for contamination of ground and surface waters. Pouring hazardous wastes down the drain not only impacts the proper functioning of a wastewater treatment plant or septic system, but may degrade the quality of sludge and septage.

Burlington County has taken a proactive role in the management of household hazardous waste. In 1986, the County was one of the first counties in the State to sponsor a pesticide disposal day. In subsequent years, this event was expanded to include household hazardous waste collection days. In 1994 Burlington County opened a permanent Household Hazardous Waste Facility (HHWF) at the Complex and is currently one of three counties to

fund and operate this type of facility (Monmouth and Morris also have permanent facilities). The facility is open five days a week and receives material from over 5,000 residents each year. As shown on Table 9-1, an average of 464 tons per year of household hazardous waste were managed at the County's facility over the past 4 years.

Burlington County is the largest county in the State, covering 827 square miles. It is not convenient for many county residents to travel long distances to reach the HHWF. In September 1996, the County initiated a pilot satellite program in order to optimize resident convenience. The satellite program permits municipalities to accept and manage certain household hazardous wastes at municipal drop-off locations and deliver the material to the County's Facility. Municipalities participating in the satellite program must adhere to guidelines which set forth collection, storage and transfer procedures for the material they collect. Municipalities that have entered into solid waste disposal agreements with Burlington County and comply with program guidelines are entitled to participate in the satellite program at no charge. As of June 2008, twenty municipalities are participants in the satellite program. These municipalities are listed in Table 9-2. In 2007, the satellites generated approximately 250 tons of household hazardous waste, representing 55% of the household hazardous waste collected in the County that year.

Burlington County also provides cost effective hazardous waste disposal to Conditionally Exempt Small Quantity Generators (CESQGs), including school districts. CESQGs are non-residential generators that generate less than 200 pounds per month of hazardous waste. CESQGs are also exempt from federal hazardous waste regulations and may legally dispose of their waste along with municipal and commercial waste. CESQGs and residents from surrounding counties that lack permanent facilities are permitted to use the HHWF for a fee. In 2007, the HHWF received 274,000 pounds of hazardous waste from CESQGs.

Burlington County bans the disposal of household hazardous waste and CESQG waste from its landfill and encourages all solid waste transfer facilities located within the county to adopt a similar prohibition.

2. Future Hazardous Waste Diversion and Source Separation Measures

The County will enhance existing programs which address the proper management of hazardous products at the end of their useful life and will institute programs aimed at reducing the types and amounts of these wastes generated by consumers. Towards this end, the County will:

- a. Encourage municipalities to enter the satellite program;
- b. Continue to provide information to all generators via its website, newsletters and other publications regarding proper disposal of household hazardous waste;
- c. Pursue partnerships with potable water, wastewater and storm water management companies and agencies to supplement outreach efforts regarding hazardous waste management and minimization;
- d. Provide educational materials to promote use of safer alternatives to household products used for cleaning, pesticide control, paint, and other household improvements;
- e. Work with the United States Green Building Council to encourage businesses to select products that will not result in the generation of hazardous materials in the commercial and institutional sectors; and
- f. Encourage partnerships with manufacturers and retailers to support convenient industry-based collection and disposal programs and with the State to provide a sustainable source of funding to support county household hazardous waste programs. The costs to manage household hazardous waste programs will continue to rise commensurate with increased levels of participation. Current funding sources are not adequate, placing a growing financial burden on counties that continue to provide these services.

C. Solid Waste

Over the long term, the most cost-effective means to manage solid waste is to minimize generation. By reducing waste generation, landfill capacity is preserved and transportation related impacts, such as fuel consumption and air emissions are reduced. Accordingly, the County proposes to continue with ongoing source reduction efforts while engaging in the following new source reduction activities:

1. Encourage businesses and institutions to use computer networks to deliver internal mail;
2. Encourage consumers to utilize materials more efficiently by purchasing materials in containers of the appropriate size for the work performed;
3. Encourage reuse of materials such as grocery bags to reduce the amount of plastic and paper that must be handled in either recycling or waste management programs;
4. Encourage the use of more durable products such as refillable toner cartridges;
5. Encourage commercial and institutional establishments to incorporate green building standards, as adopted by the United States Green Building Council, in the construction of new facilities and within the operation of existing facilities through outreach and coordination with local business groups;
6. Encourage commercial and institutional generators to incorporate source reduction strategies as routine business practices such as:
 - a. Reducing office paper waste by implementing a formal policy to duplex (2 sided copying) all draft reports, and by making training manuals and personnel information available electronically;
 - b. Improving product design to use less material;
 - c. Redesigning packaging to eliminate excess material while maintaining strength;

d. Working with customers and suppliers to design and implement a packaging return program;

e. Switching to reusable transport containers;

f. Purchasing products in bulk;

g. Reusing products and packaging to prolong their useful life, thereby delaying final disposal or recycling. Reuse is the repair, refurbishing, washing, or recovery of worn or used products, appliances, furniture, and building materials for internal reuse. Samples include:

(1) Reusing corrugated moving boxes internally;

(2) Reusing office furniture and supplies, such as interoffice envelopes and file folders; and

(3) Using incoming packaging for outgoing shipments.

h. Donating products or materials to charities or nonprofits, or exchanging materials through a commercial materials exchange. Samples include:

(1) Donating unwanted supplies to local schools or nonprofits;

(2) Advertising surplus and reusable items through a commercial materials exchange; and

(3) Donating excess building materials to local low-income housing developers or Habitat for Humanity's "Restore Program", which resells gently used or excess building supplies at reduced cost.

TABLE 9-1
HOUSEHOLD HAZARDOUS WASTE AND CESQG
ANNUAL PARTICIPATION AND WASTE QUANTITIES COLLECTED

| Year | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 |
|------------------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|------------------|----------------|
| Residential deliveries | 3,928 | 4,528 | 5,320 | 5,288 | 5,905 | 5,104 | 5,318 | 5,436 | 5,478 | 5,809 |
| CESQG deliveries | 209 | 260 | 245 | 270 | 216 | 302 | 209 | 206 | 245 | 137 |
| Total Deliveries | 4,137 | 4,788 | 5,565 | 5,558 | 6,121 | 5,406 | 5,527 | 5,642 | 5,723 | 5,946 |
| CESQG weight (lbs) | 93,282 | 120,510 | 80,201 | 100,628 | 113,761 | 118,957 | 96,850 | 107,692 | 279,492 | 320,694 |
| HHW weight (lbs) | 474,012 | 413,210 | 543,356 | 547,284 | 632,348 | 666,919 | 826,992 | 758,608 | 734,848 | 587,764 |
| Total Disposal (lbs) | 567,294 | 533,720 | 623,557 | 647,912 | 746,109 | 785,876 | 923,842 | 866,300 | 1,014,340 | 908,458 |
| Total Disposal (tons) | 284 | 267 | 312 | 324 | 373 | 393 | 462 | 433 | 507 | 454 |

TABLE 9-2
HOUSEHOLD HAZARDOUS WASTE MUNICIPAL SATELLITE
COLLECTION PROGRAM PARTICIPANTS

| Municipality |
|---------------------------------------|
| Bass River Township |
| Bordentown Township |
| Burlington City |
| Burlington Township |
| Cinnaminson Township |
| Evesham Township |
| Lumberton Township |
| Maple Shade Township |
| Medford Lakes Borough |
| Medford Township |
| Moorestown Township (Lockheed Martin) |
| Mount Holly Township |
| Mount Laurel Township |
| Shamong Township |
| Southampton Township |
| Riverton Borough |
| Tabernacle Township |
| Washington Township |
| Westampton Township |
| Woodland Township |

X. RECYCLING PLAN

A. Required Recycling Plan Elements

The 1987 Mandatory Source Separation and Recycling Act required that each county prepare and adopt a district recycling plan as an amendment to its solid waste management plan. The Mandatory Recycling Act together with the Statewide Solid Waste Management Plan Update set forth specific elements that must be included in each district recycling plan. These are:

1. Designation of a district recycling coordinator and by January 2010, designation of a certified district recycling coordinator;
2. Designation of recovery targets in each municipality to achieve the maximum feasible recovery of recyclable material from the municipal solid waste stream which shall include, at a minimum, the recycling of at least 50% of the municipal solid waste stream;
3. Designation of countywide recovery targets to achieve the maximum feasible recovery of recyclable materials from the total solid waste stream which shall include, at a minimum, the recycling of at least 60% of the total solid waste stream;
4. Designation of the recyclable materials mandated to be source separated in the residential, commercial and institutional sectors (designated recyclables);
5. Designation of the strategy for the collection, marketing and disposition of designated recyclables in each municipality, including a listing of those entities providing these services for each of the designated recyclable materials;
6. Description of the communication program to be utilized to inform generators of their source separation and recycling responsibilities; and
7. A comprehensive enforcement program that: (a) identifies the county and/or municipal entity(ies) responsible for enforcement of the recycling mandates; (b) specifies the minimum number of recycling inspections that will be undertaken by these entities on an annual basis; and (c) details the penalties to be imposed for non-compliance

with municipal source separation ordinances and the district recycling plan. Additionally, the updated district plan shall include copies of each municipal source separation ordinance.

This plan has been organized so that the required elements are addressed in the order listed above.

B. Designation of District Recycling Coordinator

Burlington County established a full time position of District Recycling Coordinator in the Office of Solid Waste Management in 1987. The Office, now the Division of Solid Waste Management, is located within the Department of Resource Conservation. The County has also established the full-time position of Assistant Recycling Coordinator and employs a part-time coordinator for the Clean Communities Program.

C. Designation of Recovery Targets

The County is adopting the state recovery targets and commits to achieving these targets by 2012. Accordingly, the recovery targets for recyclable materials in the Burlington County District Solid Waste Management District shall be:

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

The County's historical recycling rates are shown in Table 10-1. In 2006, the County attained a municipal recycling rate of 38.7% and total recycling rate of 54.7%.

The County's strategy to increase recycling rates in order to achieve the recovery targets is set forth below. This strategy entails designation of the materials that must be recycled, identification of materials that have potential for increased recovery, and development of systems for collection and marketing of designated and non-designated recyclables. The County will rely upon education as the primary means to increase recycling rates and rely upon enforcement to obtain compliance with mandatory recycling provisions of the District Recycling Plan and municipal ordinances should educational efforts fail.

D. Mandatory Recyclable Materials

1. Designated Recyclables

Those materials mandated to be source separated and recycled by all persons in Burlington County are listed in Table 10-2. Definitions of these materials are found in Section II of this Plan.

All municipalities shall adopt an ordinance that identify these materials as designated recyclables and may include additional materials mandated to be recycled within the municipality if it so desires. All designated recyclables shall be kept separate from solid waste at the point of generation and be recycled. The mixing and transportation of designated recyclables with solid waste is strictly prohibited. All designated recyclables, except for *de minimus* amounts, are banned from DEP regulated solid waste disposal facilities operating within Burlington County.

2. Material Designation Considerations

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

a. Aluminum Cans

Aluminum cans have always had the highest revenue value of any of the Class A recyclable materials and have been collected in residential recycling programs for more than two decades. This revenue source has been the mainstay of many recycling programs and is actively sought after by public and private recycling collectors. There are no impediments to recycling aluminum cans.

b. Antifreeze

Used antifreeze contains traces of fuel, oil and metal particles (including lead) and, if not properly managed, poses a threat to human health and the environment. Despite the existence of established recycling opportunities for all generators of used antifreeze, EPA reports that only 12% of all antifreeze produced in the United States is recycled each year. Designation of used antifreeze as a mandated recyclable is warranted given the risks posed by improper management and the existence of recycling opportunities. Additionally, recycling antifreeze saves resources. Ethylene glycol, the primary active ingredient in antifreeze, is produced from natural gas, which is a finite, non-renewable resource.

c. Consumer Electronics

Consumer electronics, including computer monitors, central processing units, laptop computers, and used televisions, may contain varying amounts of lead, cadmium, mercury, copper, lithium, brominated flame retardants and phosphorus and therefore should be managed in an environmentally responsible manner. Consumer electronics are a growing component of the waste stream, increasing the importance of diverting these products from landfills and incinerators to recycling facilities. The County has determined that adequate collection systems are presently available to all generators for recycling of consumer electronics, with the exception of used televisions. As discussed below, the list of consumer electronics designated to be recycled shall be expanded to include used televisions at a later date.

The Electronic Waste Recycling Act (EWRA), P.L. 2007 c. 347, was signed into law in January 2008. This legislation is intended to respond to the growing volume of consumer electronics in the waste stream and the need to manage these wastes in an environmentally sound manner. While EWRA covers desktop and personal computers, computer monitors and portable computers, its most significant provisions pertain to televisions sold to a consumer. EWRA calls for the establishment of the Used Television

Recycling and Management Program Fund to be funded by annual registration fees paid by manufacturers of televisions offered for sale in the State. Monies in the fund are to be appropriated by DEP for payment to counties or municipalities for costs incurred in operation of used televisions recycling programs and for funding of a statewide recycling program for used televisions. EWRA directs DEP to establish criteria for county and municipal television recycling and management programs by July 1, 2009.

EWRA also provides that after January 1, 2010, no person shall knowingly dispose of a used covered electronic device or any of the components or subassemblies thereof, as solid waste. The County will add used televisions to the list of mandatory designated recyclables for all generators effective January 1, 2010 or a later date as may be established by law to coincide with EWRA's prohibition of the disposal of electronic devices as solid waste.

d. Corrugated Cardboard

There are adequate collection systems to support designating corrugated cardboard (cardboard) as a mandatory recyclable material. The Regional Program provides collection of cardboard to residents and schools and cardboard, due to its bulk and revenue value, is currently one of the most common materials recycled by commercial and institutional generators.

e. Fluorescent Lights

Fluorescent lights, especially compact fluorescent bulbs (CFLs), are growing in popularity due to the substantial energy savings offered as compared to their incandescent counterparts. The increase in use will result in an increased presence of discarded bulbs in the waste stream. Collectively, these bulbs contain a significant amount of mercury and are cause for concern. Virtually all components of a fluorescent light can be recycled. The metal end caps, glass tubing, mercury and phosphor powder can all be separated and reused. Recyclers often sell the metallic portions as scrap metal. The recycled glass can be remanufactured into other glass products. The mercury can be recycled into new

fluorescent light bulbs and other mercury-containing devices. Consequently, the County has designated fluorescent lights as a mandatory recyclable and has provided the following information from EPA in support of this decision.

According to EPA, lighting manufacturers have greatly reduced the amount of mercury used over the past 20 years, but have not yet been able to eliminate its use entirely. Fluorescent lights discarded in the trash will undoubtedly break and some mercury will be released into the environment. CFL bulbs contain only about 1/100th of the amount of mercury found in a mercury fever thermometer; however the impact of improper disposal of these bulbs is far greater due to the sheer number of bulbs that will be used and discarded. The fact that these bulbs contain mercury is not reason to discourage their use. CFL bulbs are more energy-efficient because they require less energy to provide light. Electrical generation from coal-burning power plants also releases mercury into the environment. The use of fluorescent bulbs in place of incandescent bulbs lowers energy use and thus reduces the associated release of mercury from power plants.

f. Glass Containers

There are adequate collection systems to support designating glass containers as a mandatory recyclable material. The Burlington County Regional Program provides collection of glass containers to residents and schools and private recyclers offer glass collection to commercial and institutional generators as a component of commingled recycling services.

g. Lead Acid Batteries

Lead acid batteries have been designated because by design, they contain large amounts of lead. The health risks of lead are well documented and include damage to the nervous system, kidneys, and reproductive system. Consequently, every effort must be made to keep lead acid batteries out of the waste stream and manage them in an environmentally sound manner. An added concern is that, if compacted in solid waste vehicles or at solid waste facilities, batteries may explode, causing serious harm to solid

waste handlers. Lead acid batteries do have a well established collection system available to all generators, presenting no major obstacles to their recycling.

As additional background, it should be noted that a typical lead-acid battery contains 60% to 80% recycled lead and plastic. Battery recycling captures these two primary materials. The plastic components are sent to a reprocessor for manufacture into new plastic products and the lead is sent to battery manufacturers and other industries. According to EPA, nearly 90% of all lead-acid batteries are recycled.

h. Leaves

The 1987 Mandatory Source Separation and Recycling Act required that each municipality mandate leaves as a designated recyclable. This mandate is still in effect and by designating leaves as a mandatory recyclable in this Plan, the County is merely restating a requirement of law. It should also be noted that leaves have been banned from the County landfill since it first opened in 1989.

i. Metal Appliances

The designation of metal appliances (stoves, washers, dryers, hot water heaters and refrigerators) as mandatory recyclables is premised upon two important factors. First, metal appliances are readily recyclable. These items consist of about 75% steel by weight. According to the Steel Recycling Institute, scrap steel, including that which comes from metal appliances, has become the steel industry's single largest source of raw material because it is economically advantageous to recycle old steel into new steel. Consequently, the demand for scrap steel is strong.

Second, many metal appliances contain refrigerant fluids, which include chlorofluorocarbons (CFCs) and hydrochlorofluorocarbons (HCFCs) and their blends. These compounds are known to contribute to ozone depletion and their use is regulated by both federal and state law. It is required that these compounds be recycled to the maximum extent possible in the servicing and disposal of air-conditioning and refrigeration equipment. Individuals are prohibited from knowingly venting these

compounds to the atmosphere while disposing of air-conditioning or refrigeration equipment. Waste haulers are prohibited from transporting appliances containing regulated refrigerants in a manner that would result in the crushing of the appliance and venting of refrigerants into the atmosphere. Further, N.J.A.C. 7:26A-5.1(a) prohibits the shearing, shredding, baling or any other action which could cause release of refrigerant fluid prior to recovery of such refrigerant fluid.

These laws and regulations effectively prohibit the collection of metal appliances containing refrigerant fluids mixed with solid waste in compacting vehicles. Mandating metal appliance recycling, in addition to increasing recovery rates, will serve to reinforce the state and federal mandates relating to release of ozone-depleting compounds to the atmosphere. An adequate system for the collection of metal appliances exists to support this decision.

j. Paper

There are adequate collection systems to support designating paper as a mandatory recyclable material. The Regional Program provides collection of paper to residents and schools and private recyclers offer a variety of paper recycling programs to commercial and institutional generators, including programs for office paper and confidential documents.

k. Plastic Bottles

There are adequate collection systems to support designating plastic bottles as a mandatory recyclable material. The Regional Program provides collection of plastic bottles (#1 and #2) to residents and schools and private recyclers offer plastic collection to commercial and institutional generators as a component of commingled recycling services. Additionally, plastic bottles are a growing component of the waste stream and additional measures are warranted, including mandatory designation, to ensure a high rate of recovery.

1. Rechargeable Batteries

Rechargeable batteries contain heavy metals such as cadmium, mercury and lead. These heavy metals present no threat to human health or the environment while the battery is being used. However, when spent batteries enter the waste stream, they do present hazards and therefore must be managed in an environmentally sound manner. The County has designated rechargeable batteries to ensure their proper disposition.

m. Steel Cans

There are adequate collection systems to support designating steel cans as a mandatory recyclable material. The Regional Program provides collection of steel cans to residents and schools and private recyclers offer steel can collection to commercial and institutional generators as a component of commingled recycling services.

n. Textiles

Burlington County has designated used textiles as a mandatory recyclable because there is great potential to recover large amounts of textiles from the waste stream and because collection and marketing systems are well established.

Based on industry estimates, each person discards 65 pounds of textiles per year. Applying that figure to the 2000 Census data, Burlington County residents generate more than 13,000 tons of used textiles annually. However, in 2006, less than 2% of this amount was reported as recycled. This is well below the potential available for recovery. Though lack of reporting may have artificially lowered this rate, significant additional recovery is achievable. Because used textiles are rarely thought of as “recyclable”, a brief overview has been provided regarding the recovery of this material.

According to EPA, textiles represent 5% of the total municipal waste stream. The textile recycling industry prevents 2.25 million tons of postconsumer textile product waste from entering the solid waste stream each year. Nearly half of textiles discarded are contributed to charities according to an estimate from the Council for Textile

Recycling. About 61% of the clothes recovered for second-hand use are exported to foreign countries.

Regardless of their final destination, used textiles command a relatively high price and revenue generated by sales is enough to cover processing costs. Textile recovery facilities separate overly worn or stained clothing into a variety of categories which include wiping and polishing cloths; rags; components for new high-quality paper; car insulation or seat stuffing; upholstery; insulation and even building materials. Buttons and zippers are reused. The natural materials, such as various grades of cotton, can be composted. More than 500 textile recycling companies handle the stream of used textiles in the United States. Used textiles are a readily recyclable and their designation as a mandatory recyclable is clearly appropriate.

o. Tires

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

It is estimated that more than 400,000 scrap tires are generated each year in Burlington County. Based upon the Department's 2006 Recycling Tonnage Report totals, only 48% of these tires were recycled despite that fact that stable markets for recycling of scrap tires exist. The largest end use of scrap tires continues to be alternative fuel, known as tire derived-fuel (TDF). Other uses include playground cover material, equestrian track surfacing and civil engineering applications. A relatively new market opportunity is the use of scrap tire chips as a substitute for gravel in the trenches of septic systems. In view of the fact that over 10,000 new septic systems are installed annually in New Jersey, this end use shows much promise.

While only a small percentage of the total solid waste stream on a weight basis, scrap tires present serious problems in terms of their impact on the

environment. The two greatest concerns are associated with tires in landfills and the hazards of illegal tire dump sites.

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

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

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

P.L. 2004, c.46 established a fee on tires sold in New Jersey that was projected to generate \$12.3 million in annual revenue, of which \$2.3 million was to be allocated for scrap tire programs. Unfortunately, for the past three years, the State has reallocated these monies for other purposes. Restoring funding to this program, as intended by the legislature, is a critical step to maximizing recycling of scrap tires.

Even in the absence of state funding, there are tire collection systems available to all generators. Designating tires as a mandatory recyclable material will

channel more of this problematic material into recycling programs, rather than into the waste stream or illegal dump sites.

p. Used Motor Oil

The County has designated used motor oil as a mandatory recyclable because, though easily recyclable, it continues to be a major pollutant of soil and water. Used oil contains toxic substances, (halogens, organics, PCBs) and metals (lead, cadmium, chromium, arsenic), which are generated during engine use and which are contained in oil additives designed to improve engine performance. These contaminants can easily enter the food chain, harming fish and wildlife. DEP regulations prohibit the disposal of used oil in any manner and require that it be collected and delivered to a used oil collection site. (N.J.A.C. 7:26A-6). Many residents change their own motor oil in cars, boats and lawn maintenance equipment and are unaware that used oil must be recycled. The enhanced education and enforcement measures resulting from this designation should reduce the incidents of improper disposal and increase recovery rates.

There is sufficient storage and processing capacity at in-state recycling facilities to meet the needs of New Jersey used oil generators.

E. Current and Projected Recovery Goals by Material

The County has identified which recyclable materials, including non-mandatory materials, have the potential for increased recovery and has established recovery goals for each. This information is set forth in Table 10-3. Recovery goals are based upon projected future material generation, existing and developing market conditions and existing and evolving collection programs. Data presented in Table 10-4 is relied upon to support statements regarding the changes evidenced over time in generation and recovery rates for commingled containers. This data reflects the composition of the commingled recyclable stream collected in 2001 and 2007 through the Burlington County Regional Recycling Program (see Section F for a full description of the Regional Program). Each material is discussed below in terms of the potential for increased recovery.

1. Aluminum Containers

The potential for recycling increased amounts of aluminum containers is limited. While markets are expected to remain strong, container manufacturers will continue efforts to reduce the weight of the aluminum can and plastic containers are increasingly replacing aluminum packaging. Therefore, less aluminum containers are expected to be available for recycling. Table 10-4 shows that the percentage of aluminum containers, as a component of the commingled recyclable stream, remained unchanged from 2001 to 2007, while the percentage of plastic containers rose by 9%.

2. Yard Waste

Limited potential exists for increased recycling of yard waste, which includes grass, leaves, brush and tree parts. The current recovery rate of 94% as shown in Table 10-3 offers little room for improvement. Additionally, the Department's storm water regulations at N.J.A.C. 7:8 et seq. have made it more challenging for municipalities to maintain source separated collection programs for these materials.

3. Corrugated Cardboard

Significant increases in the amount of corrugated cardboard (cardboard) recovered can be realized. The cardboard market is projected to remain strong, providing economic incentives for haulers and generators to increase recovery. Additionally, the County is aware that there are commercial cardboard recycling activities that are simply not reported by generators. Measures to improve reporting are discussed in Sections H.6 and I.1 and, when implemented, will result in higher tonnage numbers for this material.

4. Food Waste

Presently, there is little potential for increased recovery of food waste. The single greatest impediment to increased recovery is the limited number of facilities in the state that are permitted to recycle food waste. Peninsula Composting is a proposed Class C Facility that, if approved and included in this Plan, will accept food waste. Should this facility be approved, higher recovery rates for food waste are anticipated.

5. Glass Containers

The potential for increased recovery of glass containers is very limited due to the continuing decline in the number of products packaged in glass. This trend is evident in Table 10-4 which shows the percentage of glass containers as a component of the commingled recyclable stream, fell from 68% in 2001 to 63% in 2007.

6. Mixed Office Paper

There is great potential for increased recovery of mixed office paper. Markets for mixed office paper are strong and are expected to remain strong. Improved reporting could possibly double the recycling rate for this material. For example, many financial institutions, corporations, government offices and medical facilities contract with paper shredding companies to recycle their office paper but do not report this tonnage to municipalities.

7. Newspaper

There is limited potential for increased recovery of newspaper. Markets are expected to remain strong, but generation will be reduced as a result of greater reliance upon television and on-line services for obtaining news. That being said, new tonnage can be gleaned from improved participation by single family homes as was demonstrated by the Regional Program's fiber cart program, described in Section F.1. An additional 100 pounds per household per year of paper was captured through participation in the cart program.

8. Other Glass

There is very limited potential for increased recovery of this category or material, which includes non-container glass and specialty glass, such as plate glass and automotive glass. Currently, Oldcastle Glass, located in Moorestown, is the only known generator of other glass in the County. They produce window and architectural glass and are recycling and reporting all the material they generate. Unless new glass manufacturers locate in the County, increased recovery is not anticipated.

9. Other Paper/Magazines, Junk Mail

There is strong potential for increased recovery of this material. Markets for all grades of paper are stable. The main source of new tonnage for this category will come from the residential sector (single and multifamily housing sources). Many residents are still unaware that these materials can be recycled along with newspapers. Ongoing county and municipal educational efforts will correct this assumption and result in improved paper recovery. As stated above, implementation of the fiber cart program will yield additional paper tonnage. Also, institutional generators such as post offices will be targeted to improve recycling practices.

10. Other Municipal & Vegetative

There is strong potential for increased recovery of this component of the waste stream. This category, as defined by DEP, includes antifreeze, lead acid batteries, textiles, used motor oil and consumer electronics. Stable markets are in place for these materials, but reporting by collectors and generators is lacking. Increased rates of recovery can be shown through improved reporting. In addition, as described below, new programs for consumer electronics, future programs for covered electronic devices, including televisions and a new emphasis on textile recycling will capture additional tonnage.

11. Other Plastic

There is strong potential for increased recovery of "other plastic." Other plastic includes plastic film, plastic bags, marine plastic and mixed rigid plastics. Markets for these materials exist, but have a lower value compared to plastic containers. Plastic resin prices are related to oil prices, consequently, market opportunities are increasing. Public and private collection initiatives will also drive up the recovery of other plastic. As examples, supermarkets are intensifying efforts to collect and recycle plastic grocery bags and, as described in Section F.3, the County has recently established programs for marine and mixed rigid plastics.

12. Plastic Containers

There is strong potential for increased recovery of plastic containers, specifically PET (#1) and HDPE (#2) bottles. The recycling market for these items is strong and should remain so for the near future for reasons stated above. The amount of plastic bottles available for recycling will increase as more packaging shifts from glass and metal to plastics. As shown in Table 10-4, the percentage of plastic bottles as a component of the commingled recyclable stream, rose from 15% in 2001 to 24% in 2007. Water, sport and energy drink bottles are a significant new source of plastic containers that will increase the tonnage of this material recovered from the waste stream. A new emphasis on plastic bottle recycling at commercial and institutional locations including school athletic fields, strip malls and convenience stores will also increase recovery rates.

Markets for PET and HDPE non-bottle containers, such as tubs and trays are beginning to emerge. Markets for bottles made of other plastic resin types, commonly referred to as #3 through #7's, are also slowly developing. At present, the County is not prepared to collect and process these other types of plastic, but will investigate future potential, based upon long term market conditions.

13. Steel Containers

There is limited potential for increased recovery of steel containers. Although markets for steel containers are stable, continuing declines in the types of products packaged in steel will make less and less available for recycling. As an example, many coffee "cans" are now made from plastic. Table 10-4 shows that the percentage of steel containers as a component of the commingled recyclable stream fell from 10% in 2001 to 8% in 2007. Enhanced education efforts and enforcement of recycling requirements in the commercial and institutional sectors should result in increased recovery rates.

F. Strategy for Collection, Marketing and Disposition

1. Class A Recyclable Materials

This section on Class A materials focuses primarily on collection, the most critical factor in recycling program development for the residential and institutional sectors. A discussion of current and proposed strategies to increase participation through collection program improvements is provided below for each class of generator – residential single family households, multifamily dwellings, institutions, including schools, governmental agencies and non-profit agencies, small businesses, and large commercial generators. These proposed strategies are intended to supplement and support the communication and enforcement provisions of the plan included in Sections H, I, and J. As preface to this discussion, a short overview of the history of the County's collection program is provided.

The cornerstone of the County's strategy for the collection and marketing of Class A recyclable materials generated by residents and schools is the Burlington County Regional Program. The Regional Program began in 1982 and currently provides recycling services to: 1) residents in all 40 municipalities, including those residing at Fort Dix and McGuire Air Force Base; 2) the majority of the schools in the County; 3) a number of small non-profit agencies and main street businesses; and 4) multifamily dwelling units. The Regional Program is the only county-wide recycling program in New Jersey funded by a board of chosen freeholders at no direct cost to municipalities.

The Regional Program is operated by the Occupational Training Center of Burlington County (OTC), a private, non-profit agency that provides training and employment to individuals with disabilities. The Board designated the OTC as the agency responsible for implementing the Regional Program by Resolution #137, adopted on March 24, 1982. This relationship is reaffirmed on an annual basis through award of a single year contract to OTC with a commitment to fund the program.

OTC is also responsible for processing and marketing of recyclable materials collected through the Regional Program. During the first decade of operations.

(1982-1992), processing consisted of curbside sorting by recycling crews. This was labor intensive and limited the types of recyclable materials the program could accept. By 1993, it was apparent that the Regional Program required a recycling facility capable of processing a large volume of commingled containers (glass, metal and plastic) and fiber (paper and cardboard). A suitable building in Westampton Township was purchased by OTC and now serves as the central processing facility for Class A recyclables collected through the Regional Program (Robert C. Shinn Jr. Recycling Center or Recycling Center).

The Board formalized OTC's processing and marketing responsibilities by Resolution #324, adopted on May 25, 1994, authorizing a 20 year agreement under which OTC is to operate the Recycling Center and market all material collected through the Regional Program.

OTC continues to provide cost effective recycling services at a cost of less than \$2 per household per month in 2007. That year, 46,125 tons of materials were recycled representing a savings to municipalities of more than \$2.9 million dollars in avoided landfill disposal fees. Table 10-5 depicts the tons of recyclables collected by the Regional Program in each municipality and the associated disposal savings.

The Board of Chosen Freeholders remains committed to providing a comprehensive and cost effective recycling program to participants of the County's solid waste management system, as described in Section 4 of this Plan.

a. Residential Single Family

(1) Collection Strategy

(a) Curbside Recycling

The Regional Program provides curbside collection to approximately 150,000 homes in thirty-seven municipalities. Collection service is provided every two weeks. The materials collected include all Class A designated recyclables (paper, corrugated cardboard, glass and steel containers, aluminum cans and plastic #1 & #2 bottles). The collection system is a dual stream system, meaning one truck

collects fiber (paper and cardboard) and another collects commingled containers (bottles and cans). Fiber has traditionally been collected in bags or bundles while recycling buckets specified by the County and supplied by each municipality are used for collection of commingled bottles and cans.

(b) Depot-Only Recycling

Three rural municipalities, Bass River, North Hanover and Woodland Townships provide and maintain convenience centers for residentially delivered solid waste. In these municipalities, the municipal recycling depot is located at the convenience center and is the designated method of residential recycling. The Regional Program provides service to these locations on a weekly basis.

(2) Strategies to Improve Participation

(a) Municipal Depot Program

The County has long recognized that municipal recycling depots are critical components of the single family residential recycling program, and provides service to these locations as a component of the Regional Program. Residents with limited storage ability or periodic surges in household recyclables often rely upon the municipal depot to address their needs. In some communities, municipal depots account for up to 15% of the residential tonnage collected.

The 1986 District Recycling Plan required each municipality to provide a recycling depot for designated Class A recyclables to supplement the curbside collection programs. In past years, the County has helped municipalities to comply with this requirement by providing grants for depot improvements. Additionally, in 2000, the County provided new fiber recycling dumpsters and signage to all municipal depots to enhance their aesthetics, safety and serviceability. For their contribution, municipalities were required to supply carts for commingled recyclables as specified by the County. Burlington County shall continue to require that all municipalities maintain a municipal recycling depot.

(b) Curbside Value Partnership Project

As stated above, municipalities are required to provide their residents with recycling buckets for commingled collection. Tonnage figures indicate that as the Regional Program matured, participation was not increasing. Curbside surveys revealed that a number of homes did not have recycling buckets and did not know how to attain them. In 2006, the County conducted a pilot study with the Curbside Value Partnership, a national partnership funded by recycling industries, to study the benefits of "Recycling Bucket Drives." The study was conducted in five communities with lower than average recycling rates. Approximately 1,000 new buckets were distributed along with recycling information. As added reinforcement, towns sent notices to residents who were not recycling. The pilot was a success, with some communities reporting increases in participation of 11%. The amount of bottles and cans collected rose to an average of 12 pounds per household per month. This study validates the importance of providing standardized recycling containers to curbside program participants. Therefore, municipalities shall continue to provide recycling containers as set forth in Section G.2.

(c) Fiber Cart Program

In reviewing material recovery trends, it was noted that fiber tonnage collected from homes dropped 6.4% between 2003 and 2007 while commingled recycling increased by 10.7%. During this same time frame, an increasing number of residents were calling the County and OTC offices to request containers for fiber, most likely because paper grocery bags became more difficult to obtain. Additionally, curbside placement of loose stacks of cardboard and paper is perceived as inconvenient, unsightly and a litter problem. Based on the foregoing, the County has concluded that the lack of a recycling container for paper is driving down recovery rates.

Fiber represents the bulk of the tonnage collected through the Regional Program. As shown in Table 10-5, approximately 31,000 tons or 68%

of the total weight of material collected consisted of recyclable fiber. As is obvious, reversing the decline in fiber recovery would significantly improve recycling rates.

In an effort to address the decline in fiber recovery, the County launched a pilot study in the fall of 2007 using automated carts for collection of fiber. Through the pilot study, the County was able to measure the benefits of the automated system with respect to improvements in participation and fiber recovery and associated reductions in Program operating costs.

Approximately 3,200 carts were deployed in the fall of 2007 in sections of Evesham and Medford townships. Data was collected through April of 2008. The findings were significant, especially the survey responses from residents who received the carts: 90% of households found the carts made fiber recycling more convenient; and 46% of homes reported recycling more types of fiber.

This translated into a 25% increase in the amount of fiber recovered (100 pounds per home per year). If implemented countywide, the cart program could capture an additional 7,500 tons of fiber per year. In addition, the study found that Regional Program costs would drop as a result of automating curbside collection.

Based on these findings, the Board of Chosen Freeholders has approved staged implementation of the cart system and has offered to share the cost of the carts with its municipalities. The Board will fund 50% of the purchase price and allow municipalities to pay the balance over a six year period. The County is committing several million dollars to support this initiative, further evidence of its commitment to recycling. Most municipalities will be able to fund their share of the carts entirely through Recycling Tonnage Grant monies.

This fall, the Regional Program will expand cart service to 20,000 homes, including neighborhoods in 14 towns. The County's goal is to expand the cart program to all curbside service areas within three years. This new program is an important component of the County's strategy to increase residential recovery rates.

(d) Additional Measures for Curbside Program

Table 10-6 shows curbside recovery rates as pounds per household recycled in each municipality for all materials collected by the Regional Program in 2007. The table reflects a wide range in recovery rates, with a low of 343 pounds to a high of 901 pounds, and an average of 553 pounds per household. There are a variety of factors that may contribute to the lower recovery rates, including reduced material generation. As examples, age restricted communities, due to a relatively low household size, generate less waste and less recycling than the general populations; residents who obtain their news from non-print sources, may not have newspapers to recycle, and residents who frequently dine out, have less containers to recycle.

Despite these considerations, the fact that thirteen municipalities are capturing less than the County average of 553 pounds is reason for concern. The County will meet with the recycling coordinators to review existing efforts and collectively develop new strategies to improve recycling. As part of this process, municipalities will be requested to: (1) review solid waste collection contracts and procedures to ensure that haulers are not collecting recyclables with solid waste; (2) identify neighborhoods with low participation; (3) determine if language barriers are preventing effective communication of recycling information; and (4) consider expanding depot hours of operation to improve convenience. As part of the new strategy, the County recommends that each of the thirteen towns participate in the fiber cart program. It should be noted that two of these communities, Pemberton Township and Willingboro, have taken this step and will join the cart program in 2008.

(e) Additional Measures for Depot-Only Program

The municipalities with depot-only programs have lower recovery rates when compared to communities with curbside collection programs. The pounds per household recycled annually by the depot-only towns are listed below. These

rates, shown in Table 10-7, are well below the 553 pounds per household average and are cause for concern.

The reasons for these low rates are unclear. As part of its strategy to improve participation, County will meet with these municipalities to discuss possible factors contributing to low recycling weights. The County will request that waste delivered to the convenience centers be monitored to ensure residents are source separating designated recyclables or may conduct waste audits of this material.

The new resident notification requirements and municipal enforcement provisions described in Sections X.G.6 and X.I.2 respectively will further support efforts to increase single family residential recycling. The County will provide monthly tonnage reports to municipalities to track their progress. The County has set a goal of increasing the average residential recovery rate to 600 pounds per household by 2010.

(f) Future Considerations – Single Stream Recycling

Recycling programs are dynamic systems that continually evolve to embrace new opportunities and meet new challenges. A new innovation, single stream recycling, has gained momentum over the past five years, with several hundred programs now in existence nationwide. This term refers to a system in which all fiber (paper and cardboard) and containers (bottles and cans) are set out for collection in one common container, collected in one common truck and then fully sorted by commodity at a recycling center.

There are two major advantages to single stream programs. The first is increased convenience to the homeowner who can place all recyclables in one container. Most programs converting to single stream have reported increased participation because of this added convenience. The second advantage is the potential for reduced curbside collection costs. With single stream, each house is serviced by

one truck instead of two, resulting in significant savings on labor and fuel. These savings are tempered by higher costs for processing.

Single stream processing systems can cost several million dollars to install. Utility and maintenance costs are higher than dual stream processing systems because single stream systems generally require more extensive and more sophisticated sorting equipment. Single stream systems also require more manual labor to ensure adequate separation of the fiber and container streams. These systems are not perfect and cross-stream contamination can occur, impacting the quality of the recycling commodities produced, potentially resulting in lower market price.

Despite these challenges, single stream facilities have recently opened in neighboring counties, including Camden and Gloucester. Burlington County will conduct a comprehensive analysis to determine if single stream recycling is the right approach for the long term sustainability of the Regional Program.

b. Multifamily Recycling

For the purposes of this discussion, multifamily recycling shall refer to collection service to complexes that rely upon dumpsters, open roll-off and closed roll-off containers for solid waste storage and collection. Smaller complexes that place trash and recyclables at the curb in the same manner as a single family home are serviced as a component of the curbside collection program discussed above.

(1) Collection Strategies

(a) Regional Program

The Regional Program first provided recycling service to multifamily complexes in 1989. Today, the Regional Program provides collection to approximately 161 multifamily complexes in Burlington County, servicing approximately 90% of the multifamily population. The remaining 10% rely upon private recyclers for collection services and are discussed later in this section.

The Regional Program services multifamily complexes on a weekly basis and collects all Class A designated recyclables. Front-end style dumpsters are the primary containers used for the storage and collection of fiber and carts are used for storage and collection of commingled bottles and cans. As a condition of service, complexes are required to provide all recycling containers, as specified by the County.

i. Services to MACCS Complexes

The provisions of the “Kelly Bill” (enacted as P.L. 1989 Chapter 299, N.J.S.A. 40:67-23.2 et seq.) and subsequent legislation is discussed in Section VII.A.1.b. These laws require municipalities to assume the responsibility for providing or reimbursing multifamily complexes for solid waste and recycling services. As further discussed in Section VII, eleven municipalities within the County organized a regional collection program to provide these services to their multifamily dwellings. This organization, known as the Municipal Apartment Condominium Collection Services (MACCS) of Burlington County, is a participant in the County’s solid waste management system, and therefore, its multifamily complexes are serviced by the County’s Regional Program.

ii. Service to Non-MACCS Complexes

The Regional Program currently provides multifamily recycling service to complexes in non-MACCS municipalities, many of which entered the program at the time all solid waste was required to be delivered to the County Resource Recovery Complex. Many of these complexes contract privately for solid waste collection and the County is not certain if solid waste is being delivered to its solid waste management system. It is important for the County to know that recycling services are being provided at no charge to only those generators that participate in the solid waste management system. Therefore, to be eligible for continued recycling service through the Regional Program, multifamily complexes or their respective municipalities, shall provide annual documentation to the County verifying that solid waste generated at the multifamily complex

is delivered to the Burlington County Resource Recovery Complex. Multifamily complexes failing to meet this requirement by June 30, 2009, shall still be eligible for recycling service, but will be charged a fee for collection.

There are proven economic advantages to regionalizing solid waste and recycling services to multifamily complexes. These services, as previously stated, must ultimately be provided or paid for by municipalities. Municipalities that are not MACCS members may wish to consider contracting for solid waste collection services on behalf of their multifamily complexes and incorporate them as participants into the County solid waste system. This will ensure their complexes' participation in the Regional Program, and thereby avoid additional costs that would arise if the municipality had to provide for multifamily recycling services.

(b) Private Collection

Multifamily complexes that choose not to participate in the Regional Program shall contract privately for recycling collection service, unless this service is provided by the municipality in accordance with the provisions of N.J.S.A C.40:66 - et al. Multifamily complexes that contract privately for recycling collection shall be responsible for reporting recycling tonnages to their respective municipality and shall comply with the Recycling Container Capacity Guidelines found in Table 10-8. Haulers that provide recycling containers as part of their service shall also comply with these guidelines.

(2) Strategies to Improve Multifamily Recycling

(a) Multifamily Guidelines

In 2003, the County studied methods to boost recycling in the multifamily community. The study was conducted in Lumberton Township and included seven complexes. The County conducted visual audits of waste and recycling containers and prepared site modification reports on measures to improve recycling convenience. Lumberton Township provided financial assistance for complexes to make the

recommended changes. These included co-locating recycling at all solid waste collection points and installing enhanced, permanent signage. Recycling tonnage doubled at the complexes that adopted all suggested improvements while complexes who failed to fully implement changes had less success (tonnage increases of 15% or less).

The County took a similar approach in 2004, when it provided recycling collection service to an additional 60 multifamily complexes in conjunction with the implementation of the MACCS program. As part of this process, the County visited all these complexes to assess the need for additional recycling containers. As a result of this effort, 200 new fiber dumpsters and 760 carts for commingled were installed at multifamily locations. Permanent, full color recycling information signs were provided, at cost, by the County for placement at recycling collection points. Training workshops for complex site managers and recycling brochures for each occupant were also provided. The County will continue to use this process when adding any new multifamily complex to the Regional Program.

The 2004 MACCS expansion project described above, confirmed the need for an adequate number of properly located recycling containers. Therefore, the County has established Recycling Capacity and Siting Guidelines for Multifamily Complexes, as set forth in Table 10-8.

These guidelines shall be adhered to by all multifamily complexes that utilize one or more centralized collection areas for solid waste, including those complexes that contract privately for recycling services. The County shall periodically modify the guidelines as needed to address changes in recyclable material compositions or collection methods. Additionally, the guidelines will be incorporated into the Model Source Separation and Recycling Ordinance discussed in Section H. Municipalities shall be advised to amend local zoning and land use ordinances to reflect these provisions.

(b) Reporting and Audits

For several municipalities, multifamily housing comprises a significant percentage of the residential population, and therefore, impacts the attainment of recovery goals. As an example, in Maple Shade, multifamily complexes account for 31% of residential program tonnage. Consequently, the ability to track multifamily recovery rates has great value.

The Regional Program will provide quarterly tonnage reports to municipalities for each complex it services. The County will provide recovery goals for each complex in the Regional Program to identify those in need of additional recycling support. If requested by the municipality, County recycling staff may conduct an on-site assessment of a complex's current recycling activities and recommend improvements. These actions will support County and municipal enforcement efforts described in Section J.2.

c. Institutional and Non-Profit Agency Recycling

(1) Schools

(a) Collection Strategy

i. Regional Program

Burlington County is home to 42 public school districts, more than one dozen private schools and Burlington County Community College. The Regional Program first provided recycling service to schools in 1989 and now services 37 school districts, 11 private schools and the community college.

The Regional Program provides schools with weekly collection of all Class A designated recyclables. Front-end style dumpsters are the primary containers used for the storage and collection of fiber and carts are used for storage and collection of commingled containers. As a condition of service, schools are required to provide all recycling containers, as specified by the County.

A number of municipalities provide solid waste collection service to their schools, and therefore, their schools are part of the County's solid waste management system and are eligible to receive the services of the Regional Program. Schools that contract privately for solid waste services may not be participants in the County solid waste management system, unless they have contractually required their hauler to dispose of their solid waste at the County Complex. Schools that do not specify this requirement are not eligible to participate in the Regional Program. It is important to correct this inconsistency. Therefore, to be eligible for continued recycling service through the Regional Program, schools that contract independently for solid waste services shall provide annual documentation to the County verifying that their solid waste is disposed of at the Burlington County Complex. Schools that do not meet this requirement are still eligible for service, but may be charged a fee for Regional Program services in the future.

ii. Private Collection Services

Schools that do not participate in the Regional Program shall contract privately for recycling services. Currently, three school districts, Bordentown, Delran and Rancocas Valley Regional, have exercised this option. Schools that contract privately for recycling collection shall be responsible for reporting recycling tonnages to their respective municipality.

(b) Strategies to Improve School Recycling

i. Educational Performances

The County has long provided matching grants to municipalities and/or schools for recycling educational performances. The school performances reinforce recycling habits of students in school and at home. On average, 15 performances are funded each year. The County has relied upon recycling and solid waste services grants to support this program and may need to find alternate sources of funding, if the Department reduces grant support as discussed earlier in Section F.

ii. School Recycling Improvement Program

In 2004, the County conducted a study at Burlington County Institute of Technology (BCIT) and Riverside Elementary School to determine whether a multi-step improvement program would increase recycling. This comprehensive process involved: meeting with the school facilities manager and business manager; providing a written assessment of recycling container needs for all interior school locations; providing a matching grant to purchase these containers; providing recycling posters and labels for each container location; conducting mandatory training for all staff; and reporting pre and post collection tonnage data. The project was successful, resulting in a 150% increase in tonnage at Riverside Elementary and a 300% increase in tonnage at BCIT.

The County has adopted this program as a model for improving school recycling and has offered the program to all schools in Burlington County. As of December 2007, 12 school districts and several private schools had completed the program. In 2008, more than one dozen additional schools have signed up for the program. The County will continue to promote the School Recycling Improvement Program, with the intent of implementing it county-wide by 2010.

iii. Waste Audits

Waste audits can provide a meaningful measure of the success of a school's recycling efforts. As an example, the Mansfield School District had implemented all the County's school improvement recommendations. To test the true effectiveness of their efforts, in April 2008 the County conducted an audit of the District's waste and recycling streams. The results were impressive; the school district had recycled 98% of their Class A recyclable materials, leaving their waste virtually recyclable free. Additionally, fiber, which was the largest component of the recyclables collected, was recycled at a rate of 41 pounds per student per year. The County's recycling staff will conduct periodic waste audits at other school locations to identify districts with outstanding programs and as well as those that may need additional recycling support.

iv. Additional Strategies

Most schools have been very receptive to the County's improvement program and have requested feedback, in the form of tonnage reports. The Regional Program's operator, the OTC, has on-board scales to record weights of the fiber collected from schools, and can therefore provide reasonably accurate tonnage data. This data will be used by the County to provide quarterly recycling reports to schools participating in the Regional Program. This information will also be shared with municipal recycling coordinators.

As a component of the communications strategies, discussed in Section I.2.b, the County will conduct recycling opportunity workshops with school officials including facility managers and business administrators to encourage recycling of additional materials, such as ceiling tiles, carpet, metal, etc.

The County will also provide CEHA inspectors, MRCs and other municipal enforcement agents with training on effective school recycling programs to support the County and municipal enforcement efforts described in Section I.2.

(2) Governmental Institutions and Non-Profit Agency

(a) Collection Strategy

i. Regional Program

The Regional Program provides collection service to all County facilities, many municipal offices, 15 post offices and a limited number of non-profit agencies. Most of these sites are serviced in the same fashion as schools, while some of the small generators are serviced through the curbside component of the Regional Program.

The post offices and non-profit locations currently serviced by the Regional Program have been long-time participants and, as such, are considered "grandfathered" into the program. Unless these establishments can

demonstrate that they are part of the County's solid waste management system, as described above, the County may, at its sole discretion, impose a fee at a cost appropriate to the needs of the Recycling Program, to continue to provide recycling services.

New post office and non-profit generators may be added to the program, if their municipality is providing solid waste collection on their behalf. If not, to be eligible for service, the generator must demonstrate that no recycling collection service is available from the private sector. In those instances, the County may, at its sole discretion and at a cost appropriate to the needs of the Recycling Program, offer to provide these recycling services in order to assist the generator in complying with the law. However, cost of service from the private sector shall not be a criterion for a service request.

ii. Private Collection Services

There are recycling providers available to meet the needs of those governmental and non-profit generators who are currently not participants in the Regional Program. Additionally, recycling of confidential papers is a service fully provided by the private sector.

(b) Strategies for Improving Governmental and Non-Profit Agency Recycling

Sections H, I, and J discuss specific strategies related to generator education and enforcement. As mentioned above, the recommendations for improvement in this section are related to collection system improvements. The County has targeted three specific areas related to government and other institutions that currently lack effective collection systems. These are discussed herein.

i. County and Municipal

(i) Office Buildings

The County has conducted an audit of County offices and implemented a program, similar to the school recycling improvement

program, for county facilities, including training of all facility maintenance staff. The County will continue efforts in this regard.

A number of municipal office recycling programs appear to be inadequate. Recycling containers and collection and storage procedures are often lacking. This sets a poor example for the public and calls into question the validity of municipal enforcement efforts. The County will meet with each municipal recycling coordinator; conduct an audit of the existing office recycling program, and present the audit findings and recommendations for improvement to the governing body. The County has set a goal of completing all municipal audits by January 1, 2011.

(ii) Parks and Community Events

All County parks are outfitted with recycling and solid waste containers. Where possible, these have been co-located to ensure proper segregation of waste from recycling. The County also provides temporary recycling containers for large public gatherings such as the County Earth Fair and Farm Fair and for events at the County Amphitheatre. County recycling and park staff will continue to work together, to incorporate recycling into the expanding County park system. Under the current strategy, County park staff empty recycling containers and then consolidate recyclables at centralized points for collection by the Regional Program.

Municipalities shall develop similar programs for their parks, athletic fields, main street areas and community events such as street fairs. At present, there is scant evidence that municipalities have enacted such programs. There is one notable exception; Mt. Holly Township has provided permanent recycling containers throughout its downtown business district. The County will provide information on similar successful programs to assist municipalities in meeting this requirement.

ii. State Agencies – New Jersey Transit

One major state agency, New Jersey Transit, has provided no recycling opportunities for riders traveling on the River LINE light rail system. The light rail stations located in Burlington County have no recycling containers. The County has met with DEP and NJ Transit officials to discuss options for recycling, with no resolution. It is apparent that additional measures by the Department are warranted to ensure a timely solution. Additionally, New Jersey Transit, in accordance with this Plan, meets the definition of a Generator, and therefore shall be responsible for complying with the provisions of municipal recycling ordinances.

iii. Federal Agencies

Post Offices have potential to recycle large amounts of paper. These federal buildings are of particular concern because many do not provide collection systems to capture the unwanted mail discarded by the public. The County shall request the Department's assistance in coordinating meetings with appropriate postal officials to develop a standardized solution to this issue.

iv. Large Institutions – Hospitals

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

d. Commercial Establishments

(1) Small Businesses

(a) Collection Strategies

i. Regional Program

The Regional Program was instituted to serve the needs of the residential community, but later evolved to include service to schools and other public institutions. Commercial generators have historically contracted with private haulers for solid waste and recycling services. Over time, at the request of municipalities, the Regional Program has made limited exceptions for small businesses located along the main street sections of older communities, such as Bordentown City, Burlington City, Florence, Mt. Holly, Riverside, and others. The exceptions were made because the municipality already provided solid waste services to the businesses and the amounts of recyclables generated were similar to household quantities.

Moving forward, the County will provide service to small businesses in accordance with the following criteria: the municipality in which the business is located must be a participant in the County's solid waste management system and initiate the request for service; the municipality must provide solid waste collection to the business; the location must be along an existing curbside route; the amounts generated must be comparable to a single family household; and the generator must meet all preparation requirements, including the purchase of recycling containers as deemed necessary by the County. The County may at its discretion add additional small businesses to the Regional Program that meet the above criteria. Businesses that do not meet the above criteria shall only be considered for service if the generator clearly demonstrates that no recycling collection service is available from the private sector. In addition, the County may, at its sole discretion and at a cost appropriate to the needs of the Regional Program, offer to provide these recycling services in order to assist the generator in complying with the law.

However, cost of service from the private sector shall not be a criterion for a service request from the business generator.

ii. Private Collection Service

Any small business may choose to contract privately for recycling collection services. This may be a more convenient option, as most private collectors tailor their service to meet the specific needs of their clients. Businesses that contract privately for recycling shall be responsible for reporting all tonnage recycled to their municipality as required by the District Plan and the municipal recycling ordinance.

(b) Strategies to Improve Small Business Recycling

i. Municipal Recycling Depot

Small businesses may have storage problems and may have difficulty complying with the curbside recycling schedule. Recyclables placed curbside in a business district on the evening before collection, may be considered unsightly and may be subject to vandalism, contributing to litter. These factors are disincentives to participation.

The municipal recycling depot can be an attractive alternative for many small businesses, and has worked well in several communities. For the depot to be a viable option, it must have operating hours that are business friendly. Municipalities are encouraged to survey the recycling needs of their small businesses to determine if expanded depot hours would be a benefit.

ii. Recycling Containers

The fiber cart program discussed in the single family recycling section may be suitable for use by small businesses. Municipalities should determine if cart service is appropriate for their business districts.

iii. Increased Frequency of Service

The County will meet with municipalities and small business owners to determine if there is a collective interest in paying for a

recycling service provided by the Regional Program or by a private recycler. If requested, the County shall explore whether the Regional Program or other service provider could provide this service and establish an appropriate fee for participants. As stated above, only those businesses that have solid waste services provided for by their municipality would be eligible for this Regional Program services.

(2) Large Commercial Generators

For the purposes of this discussion, large commercial generators shall refer to locations that rely upon dumpsters, open roll-off and closed roll-off containers for solid waste storage and collection.

(a) Collection Strategies

iv. Regional Program

The Regional Program does not provide collection service to large commercial generators however; it does serve as a market for all Class A recyclable materials. Commercial and other generators may deliver these materials directly to the Recycling Center. OTC may pay for recyclables based on market pricing, and the quality and quantity of the materials delivered.

v. Private Collection Services

There are an adequate number of private recyclers operating within Burlington County that provide collection services for all Class A recyclables. These include national waste hauling companies and local recyclers. A listing of recycling companies is easily accessed through the yellow pages. The County is developing a list of recycling collectors and markets for its website.

(b) Strategies to Improve Recycling at Large Commercial Establishments

iv. Collection Program Guidelines

Commercial establishments may be reluctant to add recycling services because they perceive it will increase their overall solid waste

management costs. Consequently, recycling containers are sometimes undersized to reduce cost and the overflow is placed in the trash. In reality, proper sizing of recycling and solid waste containers often affords opportunities for savings. Businesses can increase the value of their recyclables by implementing measures to minimize contamination. If good signage and employee training is neglected, collection systems may fail. The County will work with the County Chamber of Commerce and other organizations, to identify businesses willing to participate in free program enhancement studies. The studies will be used to develop guidelines for recycling programs based upon the type of commercial establishment. The results will be shared with other members of the business community through workshops and other outreach measures.

v. Public Convenience Recycling Containers

The increased public consumption of beverage containers out side of the home requires the development of collection systems to capture these “take away” recyclables. These are often consumed and discarded at convenience stores, shopping centers, malls and other commercial establishments. The DEP has recognized this concern and has stepped up enforcement efforts to ensure that these locations provide recycling containers for public use. Based on a review of existing collection programs, these locations clearly need additional guidance. The County will partner with property managers and their haulers to develop working models for effective “take away container” recycling programs.

vi. Construction and Demolition Sites

There are large amounts of cardboard and other recyclables typically discarded with trash at construction sites. There are serious on-site challenges to keep these materials segregated in separate containers. Dumpsters of recyclables are often mixed with other debris by subcontractors as well as residents or businesses moving into completed sections of a development. The County will partner with developers, contractors and haulers to form a task force to test collection strategies and

establish guidelines for successful construction and demolition site recycling. These efforts will support the construction and demolition ordinance requirements discussed in Section G.

2. Other Designated Recyclables

a. Antifreeze

(1) Residential

The Household Hazardous Waste Facility and participating municipal satellites are available to accept antifreeze from residents.

(2) Commercial and Institutional

Several options exist for antifreeze recycling in these sectors. Large generators such as government fleet operations and commercial automobile repair shops can set up on-site antifreeze recycling systems that significantly reduce management costs and lessen the amount of new materials purchased. There are also private recyclers that provide collection services for used antifreeze. Antifreeze is accepted at the Household Hazardous Waste Facility from Conditionally Exempt Small Quantity Generators.

b. Consumer Electronics

(1) Residential

The County has and will continue to provide recycling opportunities for residentially generated consumer electronics. The County has long recognized the need for the proper management of these products and, in 1999, held the first of many "Computer Roundups." A minimal fee was charged for each monitor, but later discontinued to encourage greater participation. From 2000 forward, the County sponsored free "Computer Roundups" at various municipal and county owned sites. Over time, the roundups were expanded to accept other consumer electronics including all computer related equipment, fax machines, copiers, printers and VCR's.

In 2006, the County established a permanent dropoff for consumer electronics at the Resource Recovery Complex. This site is popular, but due to its location in the north western part of the county, it is not convenient for use by all residents.

To minimize the distance residents must travel to recycle, the County may continue to hold off-site events that are more centrally located.

The consumer electronics program has historically been funded through the Solid Waste Services Entitlement Program and the Recycling Tonnage Grant Program. Because the Solid Waste Services Tax was eliminated in 2008, the County must rely solely upon funding received from the Recycling Grant Program for future programs. As discussed below, the County is optimistic that other private and public sector recycling opportunities will become available and lessen the demands on county funded programs.

A new option for residential consumer electronics recycling emerged in June of 2007 when Dell and Goodwill Industries launched the "Reconnect" computer recycling program. Reconnect is a no-charge computer recycling program for consumers throughout the State of New Jersey and the City of Philadelphia. Consumers can bring any brand of computer equipment to any Goodwill donation center for recycling. There are four Goodwill donation centers located in Burlington County. These are located in Bordentown Township, Lumberton, Maple Shade and Willingboro. Additionally, Reconnect maintains an informational website: www.reconnectpartnership.com that contains details regarding the program.

The Reconnect program has improved the recovery of consumer electronics in Burlington County and may reduce the demand for County sponsored roundups in the future. Table 10-9 presents historical tonnages of consumer electronics collected and demonstrates the impact of the Reconnect program.

In addition to the Reconnect program, some municipalities have elected to establish consumer electronic dropoffs at their recycling depots.

Until this point in time, televisions have been excluded from the County's consumer electronics recycling program due to limitations on funding and handling

issues. As noted above, the Electronic Waste Management Act will make funding available to counties for recycling programs for used televisions. The County will work with DEP to determine if, and how, it shall expand its current consumer electronics program to include televisions. The County is reluctant to assume this added responsibility without clear guidance as to the extent of its responsibility and confirmation from the Department that it will be reimbursed for additional program costs. However, given the expected increase in used televisions that will be introduced into the waste stream when broadcast signals change from analog to digital format in 2009, the County may decide to accept televisions in its Consumer Electronics Program prior to receipt of such guidance and funding commitments. The County is hopeful that recycling programs will be established by television manufacturers as was envisioned in EWMA and that private programs, such as Reconnect, expand to include used televisions.

(2) Commercial and Institutional

There are multiple consumer electronic recycling options available to commercial and institutional generators. Small businesses and institutions may deliver consumer electronics to the County's permanent dropoff for a fee. Additionally, there are six Class D facilities in New Jersey that are permitted by DEP accept and demanufacture consumer electronics. These facilities typically will accept direct deliveries and/or provide collection services. A listing of the approved Class D consumer electronics recyclers may be found on the Department's website www.state.nj.us/dep.

c. Fluorescent Lights

(1) Residential

Residential collection strategies for fluorescent lights, which are primarily CFLs, are limited but growing. At present fluorescent lights are accepted at the County HHWF and municipalities are encouraged to include them in their satellite programs. Obviously, there are challenges to ensure that the lights are collected and transported intact. The County will assist the satellites to develop practices ensuring their

safe transmission to the County. New options are on the horizon. IKEA is the first major retailer to accept CFLs from customers, and it is expected that other CFL retailers will follow with programs of their own. SYLVANIA now offers a mail back program with their "RecyclePak Consumer CFL Recycling Kit". Consumers who purchase the pre-paid/pre-labeled recycling kit online can simply give the package to any letter carrier or bring it to any United States postal facility for return delivery. Additionally, in June of 2008, Home Depot announced that it will accept spent CFLs at all store locations in the United States.

(2) Commercial and Institutional

There is a fairly well developed collection system for fluorescent lights from commercial and institutional generators. Small generators, including CESQGs may deliver fluorescent lights to the HHWF for a nominal fee. Most large generators use the services of electrical contractors who recycle spent lights as part of replacement lighting projects. There are trade associations for lamp recycling that may serve as a market resource for generators. These include the Association of Lighting and Mercury Recyclers (ALMR), a national organization that represents the lamp recyclers, universal waste handlers and related equipment manufacturers (www.almr.org) and the International Association of Lighting Maintenance Companies (NALMCO, www.nalmco.org) that represents lighting maintenance companies, including those who provide spent lamp management recycling services.

d. Lead Acid Batteries

(1) Residential

There are many recycling opportunities available to residential generators. Almost any retailer that sells lead-acid batteries collects used batteries for recycling. The County HHWF and participating municipal satellites also accept batteries from residents.

(2) Commercial and Institutional

As mentioned above, most retailers and automotive parts stores will collect used batteries for recycling. There are also private battery collectors who will service large generators, such as trucking operations. As of June 2008, lead acid batteries had a positive market value increasing their recyclability.

e. Leaves

(1) Residential

Residential leaf programs, either curbside or dropoff, are provided by thirty-two (32) municipalities. Eight of those thirty-two towns send their leaves to farms approved to accept leaves for mulching and the other twenty-four utilize Class C facilities located within the County. A list of Class C Recycling Facilities is found in Section VI - Solid Waste and Sludge Management Facilities. The remaining eight municipalities in the County are more rural and do not offer leaf collection programs. The existing collection system functions well since leaves are rarely found in loads of waste entering the landfill.

(2) Commercial and Institutional

Leaves from commercial and institutional sources, if collected, are managed by lawn service companies, who typically deliver their leaves to permitted Class C facilities.

f. Metal Appliances

(1) Residential

Most municipalities have separate curbside collection programs for metal appliances, though they may charge for appliances containing refrigerants. Collections are performed by public works crews or by contracted waste haulers. Municipalities without curbside collection programs either accept metal appliances at their municipal recycling depots or direct residents to deliver them to the Resource Recovery Complex. Scrap metal is accepted at the Complex for no charge, but a fee is collected for appliances containing regulated refrigerants. Residents also have the option of

delivering material to one of several scrap metal recyclers located in and around Burlington County. These collection options provide an adequate strategy for the collection of metal appliances.

(2) Commercial and Institutional

There is an established collection system available to commercial and institutional generators. Multiple waste haulers in the South Jersey area offer metal recycling services. A listing of companies providing these services may be found under the heading of "Garbage Removal" in the yellow pages of the phone book. As mentioned above, direct delivery to a scrap metal recycler or the Resource Recovery Complex is a viable option.

g. Rechargeable Batteries

(1) Residential

Rechargeable Battery Recycling Corporation (RBRC) provides a collection system for all consumers of rechargeable batteries. RBRC is a non-profit public service organization, representing many rechargeable battery manufacturers dedicated to recycling used rechargeable batteries. Consumers can bring spent rechargeable batteries to several participating retailers. As of June 2008, these retailers included, but are not limited to: Best Buy, Black & Decker, Circuit City, The Home Depot, Lowe's, Office Depot, OfficeMax, RadioShack, Sears, Staples, Target and Verizon Wireless. Consumers can find the closest recycling location by visiting RBRC's website www.rbrc.org. Additionally, rechargeable batteries are accepted at the HHWF.

(2) Commercial and Institutional

RBRC offers various recycling plans for commercial and institutional establishments. For these generators, RBRC pays or shares the cost of consolidating, shipping and processing batteries. Program information for commercial and institutional generators can be obtained by contacting RBRC via their website www.rbrc.org.

h. Textiles

(1) Residential

There are multiple entities that provide textile collection boxes at convenient locations throughout the County, many of which can be found in parking lots of retail shopping centers. Charitable thrift shops operated by Goodwill Industries, hospitals, and other non-profit agencies accept residential used textiles. Municipalities are encouraged to consider locating textile collection boxes at municipal recycling depots to increase resident convenience.

(2) Commercial and Institutional

There are well-established markets for large generators of used textiles, but added opportunity for recovery exists through periodic textile collections. As an example, schools should consider working with a textile collection box provider for locker cleanouts at the end of the school year. This would result in increased recycling and reduced disposal costs.

i. Tires

(1) Residential

The current system for tire recycling consists of several options. There are 27 municipalities that offer tire dropoff and/or collection programs to their residents. Additionally, several municipalities collect tires at community cleanup events. Additionally, residents may bring tires to the County Complex for a fee or can pay retailers to keep their old tires when purchasing new ones.

(2) Commercial and Institutional

Commercial and institutional generators may bring tires, including truck tires, to the County Complex for a fee. There are also several major scrap tire facilities in the region that will provide trailers or accept deliveries from large generators. The DEP tracks and posts a listing of Scrap Tire Facilities and Tipping Fees on their website to assist generators in finding markets. Based on the Department's May 2008 posting, the

average tipping fee charged by facilities in the vicinity of South Jersey was approximately \$125.00 per ton, or \$1.25/tire.

The County also provides a Tire Amnesty program for farmers each spring. This program has the added benefit of supporting local agriculture.

j. Used Motor Oil

(1) Residential

Residents who change their own oil have a number of options for recycling. N.J.S.A. 13:1E-99.36 requires all retail automotive service stations with oil collection tanks to accept used motor oil from residents. All municipalities except for Beverly, Fieldsboro, New Hanover, Pemberton Borough, Springfield, Washington and Woodland have collection programs for used motor oil. Residents may also deliver used motor oil to the County HHWF. Additional collection centers may be found through the American Petroleum Institute's website, at www.recycleoil.org or the Earth 911 website, www.1800cleanup.org.

(2) Commercial and Institutional

Conditionally exempt small quantity generators (CESQGs) may deliver used motor oil to the County HHWF for a fee. For larger generators, such as automotive service centers and fleet maintenance operations, there are many companies that provide used motor oil collection services.

3. County Programs for Non-Designated Recyclables

The County has established programs for additional recyclable materials to help achieve recycling targets. These programs were feasible to implement because of the storage and/or processing capabilities available at the Resource Recovery Complex and the Recycling Center. The County will continue to explore opportunities to recycle additional materials at these two facilities as new markets develop.

a. Carpet

The carpet recycling industry is relatively new, but viable end markets now exist. These emerging markets have afforded the County the opportunity to establish a residential carpet recycling program at the Complex. The program, established in 2007, accepts dry, unsoiled carpet for recycling at a fee of \$35 per ton. Though this material is bulky and therefore challenging to transport, a small, but growing number of residents are taking part in the program. Burlington Township is the first municipal participant in the program, collecting carpet curbside from their residents.

b. Drywall

There are emerging recycling companies capable of recycling drywall by separating the paper from the gypsum to create two marketable products. Based on industry estimates, approximately 12 percent of new construction drywall, also known as sheetrock, is wasted during installation (1 ton of drywall per new home). Construction projects within the County have the potential to generate 2,000 tons of drywall annually. The gypsum component of drywall, calcium sulfate, is problematic for landfills, due to its potential to create hydrogen sulfide gas under anaerobic conditions. This gas is corrosive to the landfill's biogas processing and utilization equipment, and is a source of sulfur dioxide emissions when flaring biogas and/or combusting biogas for electric power generation. To minimize the amount of drywall entering the landfill and improve recycling recovery rates, the County established a drywall recycling program at the Complex in 2007. Unpainted, clean drywall is accepted for a recycling fee of \$39 per ton.

c. Marine Plastic Shrink Wrap

Plastic shrink wrap used by the boating industry to protect boats and other watercraft from winter weather conditions, can be recycled if kept clean and dry. Burlington County has approximately 12 marinas that would benefit from a shrink wrap recycling program. DEP's Office of Coastal Management has provided grant funds for the purchase of two large recycling containers for the collection and recycling of boat shrink

wrap. In the spring of 2008, two marina owners, one along the Delaware and one in Bass River, agreed to serve as collection points for area marinas and boaters. The shrink wrap was transported by the County to the Recycling Center for processing and marketing. The County will continue this program as long as markets are available.

d. Mixed Rigid Plastics

Mixed rigid plastics are large, bulky plastic items, such as plastic buckets, crates, coolers, children's play equipment and lawn furniture. These items are too bulky to collect and process in typical curbside collection and processing systems. The County secured a market for mixed rigid plastics in 2006 and established a free dropoff program for the material at the County Complex. The plastics are transported to the Recycling Center for baling and shipment to market. Municipalities may collect mixed rigid plastics at their recycling depots and deliver these materials directly to the Recycling Center. Two municipalities, Burlington and Medford Townships have taken this step and in 2007, collectively recycled 32 tons of material. Non-residential generators, including businesses and private recyclers may also deliver mixed rigid plastics directly to the Recycling Center. The Recycling Center sets pricing for non-residential loads based upon market conditions.

e. Wood

The County has a need for woodchips as a feedstock for the Co-Composting Facility and meets this need by processing several types of wood, including untreated lumber, pallets, tree parts/brush, and stumps into chips. The County serves as one of the regional markets for these materials, accepting wood from in and out-of-county sources, both public and private.

G. Municipal Responsibilities

The Mandatory Recycling Act together with the Statewide Solid Waste Management Plan assigns specific responsibilities to municipalities for meeting recycling rates. The County, in defining its recycling strategy, must identify these requirements as well

as any others it deems necessary to ensure that each municipality attains a 50% recovery rate.

These requirements are:

1. Designate a Municipal Recycling Coordinator

Each municipality shall designate one or more persons as the Municipal Recycling Coordinator (MRC). The MRC shall compile recycling data and prepare reports as required by the state and county, oversee the recycling activities of all generators within the municipality and assist all generators in compliance with applicable requirements for recycling. It shall be the responsibility of the municipality to ensure that the MRC has the knowledge to provide this assistance. Newly designated MRCs shall attend a recycling coordinator orientation provided by the County within 30 days of assuming the title. All MRCs shall attend at a minimum one County sponsored recycling meeting annually.

MRCs are encouraged to attend the New Jersey Recycling Certification Series offered by the Rutgers Office of Continuing Professional Education. The Association of New Jersey Recyclers (ANJR) also offers free guidance documents to MRCs, including *The Recycling Coordinator's Primer*, which is available on the ANJR website, www.anjr.com.

Each municipality shall designate one or more persons as the Municipal Certified Recycling Coordinator (MCRP) by January 12, 2010. A "Municipal Certified Recycling Coordinator" means a person who shall have completed the requirements of a course of instruction in various aspects of recycling program management, as determined and administered by the Department. Each municipality shall provide the County with annual notification of the designated MRCP by January 31 of each year.

2. Provide for a Collection System

The Act requires that each municipality provide a collection system for the recycling of the materials designated in the District Recycling Plan. The County has assumed primary responsibility for collection of Class A recyclables at single and multifamily residences and schools, and for acceptance of other designated recyclables at its

HHWF. To supplement the collection system, the County has required that all municipalities maintain a municipal recycling depot for Class A recyclable materials. This requirement shall remain in effect. A municipality may set guidelines regarding the use of its recycling depot by residents and small commercial and non-profit agencies, including limitations on the amount of material accepted. Municipalities are encouraged to accept additional recyclables at their depots to meet recycling goals. Additionally, all municipalities that are participants in the County's Regional Program shall provide recycling containers, as specified by the County, to all homes eligible for curbside recycling service.

Recycling collection services are offered to municipalities as a component of the County solid waste management system (See Section 4 herein). Participation in the system is voluntary. If a municipality elects to deliver waste outside of the system, it must provide a comparable level of recycling service to all affected generators within 30 days of leaving the system. Collection strategies for other designated materials and generators have previously been addressed in Section F.

3. Adopt Recycling Ordinances

a. Mandatory Ordinances for Designated Recyclables

Within 90 days of the date of DEP certification of this Plan, the governing body of each municipality shall adopt an update to its recycling ordinance. The ordinance shall require all persons generating municipal solid waste within the municipal boundaries to source separate from the solid waste stream, designated recyclable materials, which shall include at a minimum, the materials listed in Table 10-2. The ordinance shall further require that unless otherwise provided for by the generator, the designated recyclable materials shall be placed for collection in the manner provided by the ordinance.

The County will provide a Model Municipal Source Separation and Recycling Ordinance that shall be used by each municipality to update its ordinance. The model ordinance will be distributed to municipalities prior to Plan certification. Each

municipality shall provide the County with a copy of its ordinance immediately upon adoption.

The Recycling Act allows the governing body of a municipality to exempt persons occupying commercial or institutional premises within its municipal boundaries from the source separation requirements of the municipal recycling ordinance if those persons have otherwise provided for the recycling of all designated recyclable materials. To be eligible for an exemption, a commercial or institutional generator of solid waste shall file an application for exemption with the municipal recycling coordinator on forms to be provided for this purpose. The following information shall be provided on the forms: the name of the commercial or institutional entity; the street address and lot and block designation; the name, official title and phone number of the person making application on behalf of the commercial or institutional entity; the name, address, official contact person and telephone number of the facility providing the recycling services and a certification that the designated recyclable materials will be recycled, and that, at least on an annual basis, said recycling service provider shall provide written documentation to the municipal recycling coordinator of the total number of tons collected and recycled for each designated material.

The County has provided a guidance document, Guidelines for the Granting of Municipal Exemptions for Commercial and Institutional Establishments, to assist municipalities in determining when the granting of an exemption is warranted. This document is included as Appendix B.

b. Additional Ordinances

(1) Provision of Recycling Containers for Residential Development

The County has prepared model language that municipalities are encouraged to adopt regarding the provision of recycling containers by residential developers. The language requires developers to provide containers for each proposed housing unit as a condition of site plan approval. Several municipalities have

adopted similar provisions and found them very useful. The suggested language should be reviewed and approved by municipal legal counsel prior to adoption and is stated as follows:

Recycling Containers

As a condition to issuance of the initial certificate of occupancy, the applicant shall provide escrow funds in an amount specified by the municipality that is sufficient for the municipality to supply the following:

(a) For each residential unit, recycling containers, of a quantity, size and type that shall be specified by the municipal recycling coordinator.

(2) New Development Ordinance

Too often, multifamily, commercial and institutional developments have been constructed without the inclusion of an effective and convenient recycling collection and storage system. It can be costly and problematic to incorporate recycling into a project after construction has been completed. This lack of planning results in severely undersized areas for recycling collection and storage and presents a serious impediment to achievement of recycling goals. The Department has addressed this issue by providing ordinance language which requires applications for subdivision or site plan approval to provide for recycling. This ordinance language, titled Recycling Plan Component for New Developments is included as Appendix C. All municipalities shall adopt this language within 90 days from the date of DEP certification of this Plan. Each municipality shall provide the County with a copy of this ordinance immediately upon adoption.

(3) Construction and Demolition Recycling Ordinance

DEP has prepared a model ordinance to encourage recycling at construction and demolition sites that is included in this Plan as Appendix D. The ordinance requires a “Debris Recovery Plan” to be filed for construction, renovation or demolition projects for which a building permit or a demolition permit is required, and for which a dumpster or roll-off container is placed on site for solid waste materials. If adopted,

this ordinance should greatly enhance the recovery of construction and demolition materials. The County will host workshops with developers, municipal recycling coordinators and code enforcement officials to discuss the implications of this ordinance. Municipalities are strongly encouraged to adopt the model ordinance or similar ordinance.

4. Review and Revise Master Plan

The 1987 Mandatory Source Separation and Recycling Act requires that each municipality, at least once every 36 months, conduct a review and make necessary revisions to the master plan and development regulations adopted pursuant to P.L. 1975, c.291 (C.40:55D-1 et seq.), and that these revisions reflect changes in federal, state, county and municipal laws, policies and objectives concerning the collection, disposition and recycling of designated recyclable materials.

The law further requires that the revised master plan include provisions for the collection, disposition and recycling of recyclable materials designated in the municipal recycling ordinance and for the collection, disposition and recycling of designated recyclable materials within any development proposal for the construction of 50 or more units of single-family residential housing or 25 or more units of multifamily residential housing and any commercial or industrial development proposal for the utilization of 1,000 square feet or more of land.

This provision has been interpreted as an action to be taken at the discretion of the municipality and not as a requirement of law. As a consequence, not all municipalities have complied with this requirement.

All municipalities shall make the necessary revisions to the master plan to comply with these requirements within 6 months of Department's certification of the Plan. Copies of the master plan revisions pertaining to recycling shall be submitted to the County upon adoption by the municipality. Municipal planning boards or other appropriate municipal agencies shall adopt ordinances, reflective of these revisions, to affirm that provisions for the collection, disposition and recycling of designated recyclable materials

have been provided by all applicants receiving approval for site plan and development. Ordinances adopted to meet this requirement shall include the Recycling Capacity Guidelines for Multifamily Complexes shown in Table 10-8 and Recycling Plan Component for New Developments listed in Appendix C.

Municipalities are advised to address these requirements without delay, thereby ensuring that all new developments will provide generators with convenient opportunities to recycle.

5. Submit Recycling Tonnage Reports

Each municipality shall, on or before July 1 of each year, submit a recycling tonnage report to the DEP in accordance with rules and regulations adopted by the Department. The governing body of each municipal shall provide an electronic copy of this recycling tonnage report concurrently to the County.

6. Notify Generators of Recycling Opportunities and Requirements

Each municipality shall at least once every six months notify all persons occupying residential, commercial, and institutional premises within its municipal boundaries of local recycling opportunities, and the source separation requirements of the municipal recycling ordinance. In order to fulfill the notification requirements of this subsection, a municipality may, at its discretion, place an advertisement in a newspaper circulating in the municipality, post a notice in public places where public notices are customarily posted, include a notice with other official notifications periodically mailed to residential taxpayers, or any combination thereof, as the municipality deems necessary and appropriate. Copies of these notifications shall be provided to the County.

The County has historically provided, at its expense, at least one of the required residential notifications as a benefit to municipal participants in the County solid waste management system as described in Section 4. The County may, at its discretion, continue to provide this benefit to municipal participants, however, the primary responsibility for notification lies with the municipality. In the event a municipality elects not to participate

in the County's solid waste management system, the municipality shall be solely responsible for any residential notifications that were previously provided by the County.

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

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

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

Each municipality shall be responsible for providing recycling notifications to each multifamily, commercial and institutional generator. These generators, especially commercial establishments, have received little or no recycling information, and none on a consistent basis. Consequently, many still remain unaware of mandatory recycling requirements, including tonnage reporting provisions. To address this issue, municipalities

shall be required to provide at least one direct notice to each multifamily, commercial and institutional generator on an annual basis. The notice must state the mandatory recycling requirements, including the provision to accurately report the types and tonnages of materials recycled. The notice shall further state, that to meet the reporting requirements, generators should only contract with recycling collectors and/or markets capable of providing adequate tonnage documentation.

The County will assist municipalities in developing recycling outreach information for multifamily, commercial and institutional generators. A detailed discussion of County outreach efforts is found in Section H.

H. County Communication Programs

1. Publications

The County's regional approach to residential recycling has afforded the opportunity to provide consistent and standardized recycling information to residents served by the Regional Program since its inception in 1982.

The keystone document for the program has been the customized municipal recycling brochure that the County provides to each municipality. In 2008, the County distributed more than 175,000 brochures and historically has funded the associated municipal mailing costs. The County continually updates the design of the brochure to keep the recycling message fresh and effective. As a measure of success, counties and municipalities in other parts of the state have incorporated the County's design elements into their own publications. The County also provides to municipalities, upon request, a mid-year recycling schedule for distribution in municipal tax bills. These requests totaled 105,000 schedules in 2008. The County provides a separate multifamily recycling brochure for municipalities to distribute to their multifamily complexes. The County intends to provide these publications as described, to municipalities in accordance with the terms set forth in Section G.6 above.

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

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

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

2. Other Communication Measures

a. Events and Presentations

The County hosts several major events designed to promote recycling, including the County Earth Fair which attracts over 10,000 people annually. The County offers programs at the Robert C. Shinn Recycling Center, including school tours, Scout Tour Days and an America Recycles Day open house. Several thousand people take

part in these four programs each year. The County provides school recycling assembly programs, presenting to more than 1,500 students in 2007 and offers presentations to civic organizations upon request. The County will continue these outreach efforts in the future.

b. Recycling Workshops

Within the past five years, the County has conducted recycling workshops for municipal officials, multifamily complex managers, school business administrators, school facilities managers and county maintenance staff. In 2007, the County partnered with the Chamber of Commerce to offer its first business recycling workshop.

The County intends to provide another series of workshops to all the groups listed above, and will place special emphasis on providing workshops for commercial establishments. These will include workshops for builders regarding recycling of construction and demolition sites and for commercial property managers and tenants. Recycling workshops are also contemplated for municipal planners and engineers and for officials responsible for recycling enforcement.

c. Municipal Recycling Coordinator (MRC) Outreach

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

I. Reporting and Enforcement Strategies

1. Reporting of Solid Waste and Recycling Tonnages

a. Reporting of Municipal Origin for Generators

Accurate reporting of solid waste and recycling tonnages by haulers is essential for the County to track municipal recovery rates and determine which sectors of the community (residential, commercial, institutional) may need additional recycling program support. The Department requires that all solid waste haulers report solid waste type and tonnages collected by municipal origin. The Department further requires that

all solid waste facilities and all recycling centers holding a general approval maintain a record of materials received, stored, processed or transferred that include the municipality of origin. Additionally, these facilities must submit an annual report summarizing this information. The Department provides a list of municipal origin codes to be used for this purpose.

The solid waste and recycling haulers report the origin(s) of their loads to the receiving facility (recycling and/or solid waste) and the facility uses this information as the basis for their reports. Inaccuracies result when haulers report waste origin by billing address relying upon zip codes. Zip code boundaries do not coincide with municipal boundaries. For example, the zip code "08088" covers portions of three municipalities. Haulers may report waste picked up in any of these municipalities as being generated in Vincentown, the town in Southampton Township where the post office is located. Tonnage reported as being generated in Vincentown is arbitrarily apportioned among the three municipalities.

The County estimates that identification by zip code rather than geographic boundaries impacts reporting in approximately one-third of the municipalities within Burlington County. This issue must be addressed if the County is to provide an accurate assessment of municipal recycling rates. Therefore, effective January 1, 2009, the County will require all haulers providing solid waste and or recycling collection services to generators located within Burlington County to report municipal origin based upon the geographic location of the municipality. Identification of municipal origin by zip code or mailing address is not acceptable and shall be considered a violation of the District Plan.

A table of municipal origin codes is provided in Table 10-10 as a resource to all solid waste and recycling haulers operating within Burlington County. This list along with instructions on reporting will be posted upon the County website and provided to all users of the County Complex and all recycling and solid waste facilities located within the County.

In addition, the County will require its enforcement staff to periodically audit hauler and facility waste reports to ensure proper reporting of the origin municipality for all materials collected.

b. Failure to Report

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

c. Non-Standardized Reporting

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

Adoption of these standardized reporting practices shall ensure that generators and municipalities receive the full benefit of recycling activities.

d. Reporting Awareness

The lack of knowledge among commercial and institutional generators regarding their recycling responsibilities has perpetuated reporting issues. The municipal notification requirements set forth in H.6 will definitely improve reporting rates, but a complete solution must include direct outreach to recycling providers. The County

shall endeavor to advise recycling providers, where feasible, of the standard reporting practices set forth herein. Towards this end, the County has and shall continue to serve as a reporting conduit for recycling providers to municipalities. This option allows these haulers to provide one single report which lists, by municipal origin, the materials and tonnages recycled from their customers. This has proven a convenient and efficient way to capture and disseminate recycling tonnage information.

e. Standardized Statewide Electronic Reporting

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

The County recommends that the Department establish an electronic reporting system for solid waste disposal facilities and haulers as soon as possible.

2. Enforcement

The County shall rely upon education as the primary means to enhance compliance, and as discussed above, has established the framework for a comprehensive education and outreach program to be undertaken by the County and its municipalities. In those cases in which educational efforts do not bring about compliance, enforcement action will be necessary. The enforcement strategy that the County will implement to compel

compliance with recycling requirements is described below. Enforcement responsibilities will be shared by the Burlington County Health Department and each municipality.

a. Burlington County Health Department

The Solid Waste Management Act authorizes a local board of health, a county health department or DEP to enforce codes, rules or regulations adopted by DEP related to the collection and disposal of solid waste. N.J.S.A. 13:1E-9. As a requirement of the Act, district plans constitute legally binding and enforceable requirements akin to a code, rule or regulation. Enforcement actions taken by a county health department must conform to all applicable performance and administrative standards adopted by DEP pursuant to the County Environmental Health Act (CEHA), N.J.S.A. 26:3A2-21 et seq. CEHA allows DEP to delegate the administration of environmental health laws to certified local health agencies. In order to be certified, DEP must find that the local health agency provides and can continue to provide a complete program of environmental health services which meet standards of performance and procedure as indicated in a work program prepared by the agency.

The Burlington County Health Department's original Work Program was submitted to DEP and approved in March 1984. The Health Department is presently certified to administer certain aspects of environmental health laws relating to solid waste, air pollution, water pollution, noise control and hazardous materials. Each year the Health Department submits a Work Program to DEP and, upon its approval, executes an agreement which sets forth the specific activities that will be undertaken in each area, establishes a minimum number of inspections which must be completed during the calendar year and commits State funding for these activities. DEP provides guidance on conduct of these activities in "Standard Operating Procedures for CEHA Delegated Solid Waste Enforcement Activities."

In addition to the funds received from the State, the County Health Department receives revenue to conduct solid waste enforcement activities through a fee

imposed on each ton of waste delivered for disposal at the County landfill. That solid waste enforcement fee was established in the first year of the landfill's operation in 1989 at \$0.33 per ton and has remained the same through the present date. Monitoring of solid waste activities conducted by the Health Department include facility permit and regulatory compliance, transporter regulations, transportation routes, complaint investigations, and solid waste and recycling generator requirements.

DEP has placed growing emphasis on enforcement of recycling mandates, particularly at multifamily, commercial and institutional establishments and this has been reflected in the number of generator inspections required in the annual Work Program. Recycling enforcement at single family residences, however, is a municipal obligation, enforced through the provisions of the municipal ordinance. DEP also recommends that compliance assistance be an integral component of county enforcement programs. The County fully supports this recommendation and believes that such assistance will play a vital role in achieving compliance with recycling mandates. The County will furnish CEHA inspectors with informational materials to distribute to generators at the time of inspection.

Specific enforcement activities to be undertaken by the County Health Department in regard to recycling requirements are as follows:

(1) Multifamily Complexes

The County will provide, at a minimum, the number of multifamily compliance inspections set forth in the annual CEHA Work Program. In 2008, County Health Department staff was responsible for, and has completed, inspections of 50 multifamily complexes. This represents approximately 30% of the multifamily complexes located in the County.

(2) Schools and Other Institutions

The County will provide, at a minimum, the school compliance inspections set forth in the annual CEHA Work Program. In 2008, inspections

were required at 50 school locations, representing approximately one-third of the schools in the County. The Health Department, through its food inspection program, visits all schools on an annual basis. It may be possible to incorporate recycling inspections into these visits, thereby ensuring compliance in the entire school universe.

The school inspection program has produced results. Most recently, a school district was inspected and found to be deficient in meeting recycling obligations. The school had been unaware of its recycling requirements, and once notified, took immediate corrective action based on guidance from the County to significantly improve its recycling program. CEHA inspectors are also measuring compliance at other institutions, including municipal government building and post offices.

(3) Commercial Establishments

The County will provide, at a minimum, the commercial inspections set forth in the annual CEHA Work Program. In 2008, inspections at 70 business locations were required and half of these were completed as of May 2008. The businesses inspected included convenience stores, supermarkets, small retail operations, health care facilities, automotive service centers and hotels. Investigators also respond to complaints from members of the public regarding lack of recycling programs at commercial locations. Due to the large number of businesses within Burlington County, the number actually monitored represents only a fraction of the commercial community.

(4) Coordinating Enforcement Measures

An effective enforcement program must include a well structured coordinated effort between county and municipal enforcement officials. CEHA inspectors shall transmit copies of all inspection reports to the District Recycling Coordinator for transmission to MRCs within 10 days of performing the inspection. This should prevent duplicative inspections by CEHA and municipal staff. A system to track recycling activities by generator must be developed to improve coordination between county and local inspectors. The basics of this system exist. The Department requires CEHA inspectors to

prepare a recycling survey for each location inspected. The County will compile this data electronically into a tracking system that will identify those generators in compliance and those with poor compliance histories and that are in need of additional recycling program support. County and local inspectors could rely upon this database to determine where to focus compliance assistance efforts. The County has set a goal of providing this tracking system by January 2009.

(5) Waste Hauler Inspections

CEHA inspectors shall periodically monitor solid waste transporter collection activities and take action as authorized in instances where designated recyclables have been mixed with solid waste collected from residential, commercial and institutional generators.

(6) Penalty Assessments

The County may initiate enforcement proceedings in a court of competent jurisdiction against violators as appropriate. To ensure consistency, all penalties sought shall be calculated according to the penalty schedule, matrix and criteria found in the Solid Waste Management Act and regulations promulgated thereunder.

b. Municipal Enforcement

Each municipality shall implement a fair and effective enforcement program to ensure compliance with the municipal recycling ordinance and achieve mandated recycling goals. The required elements of this program, based upon the type of generator, are described herein. Penalties associated with this section of the Plan shall be in accordance with those established in the municipal recycling ordinance and available to the municipal court of jurisdiction.

(1) Single Family Residential

Each municipality shall provide an enforcement program for single family residences that includes: identification of residents who have solid waste

visibly contaminated with designated recyclables; issuance of progressive warnings for non-compliance; and imposition of penalties as prescribed by ordinance.

(2) Multifamily Complexes

By law, municipalities must pay the disposal fees on waste generated by multifamily complexes. Therefore, ensuring that complexes are recycling provides a benefit to municipal taxpayers. Each municipality shall provide an enforcement program that includes an assessment of recycling activities at a minimum of 3 multifamily complexes per year. Assessments will not be required in those instances where recycling inspections were performed by County CEHA inspectors.

The assessment shall verify that: all residents receive recycling information; the complex has a recycling collector; recycling tonnages are properly reported; the number and location of recycling containers are adequate; and the complex is segregating solid waste and recyclables as set forth by ordinance.

The County shall provide a Multifamily Recycling Assessment Form to municipalities to be used for this purpose. Municipalities shall be required to begin these annual assessments in 2009, and shall submit reports annually by January 31st of the following year.

Municipalities may consider using the results of the annual multifamily assessment to determine whether a multifamily complex is eligible for reimbursement for solid waste collection services. Pursuant to N.J.S.A. 40:66-1.3, a multifamily dwelling must comply with all recycling requirements generally applicable to all other residential properties within the municipality in order to be eligible for solid waste collection services or reimbursement for those services. If a multifamily dwelling is not in compliance with the municipal recycling requirements, then the municipality may terminate solid waste and recyclable collection services to the multifamily dwelling, or reduce its reimbursement payment.

(3) Schools and Other Institutions

Tax dollars fund a school's waste disposal costs, so there is a measurable public benefit to increased compliance at educational institutions.

Additionally, recycling habits learned at school reinforce recycling behavior at home, and in later years, in the work place. School visits conducted by County recycling staff over the past 3 years indicate that there is a wide range of compliance, even among schools within the same district.

To ensure that all schools reach their recycling potential, each municipality shall provide a school enforcement program. This program shall include an annual assessment of recycling activities at public and private schools, except in those instances where recycling inspections have been performed by CEHA inspectors.

The assessment shall verify that: the school has a recycling collector for all designated materials; recycling tonnages are properly reported; the number and location of recycling containers for all indoor and outdoor facilities are adequate; and that the school is segregating solid waste and recyclables as set forth by ordinance.

Municipalities shall incorporate their enforcement of other institutions into the commercial enforcement program described below.

(4) Commercial Establishments

Commercial waste may represent 50% or more of the waste generated in a municipality and has the greatest potential for increased recovery of recyclable materials. Though many businesses in Burlington County have strong recycling programs, a large number are still unaware that recycling is mandated by law, in part due to lack of municipal enforcement.

Burlington County is fairly diverse with respect to commercial development. Some municipalities have very limited commercial businesses while large municipalities, such as Evesham and Mt. Laurel have hundreds of business, including strip malls, corporate office parks and large big box retail establishments.

Therefore, the actual enforcement protocol, including the number of inspections to be conducted, will vary by municipality. Communities experiencing growth or redevelopment must address construction and development sites that present distinct enforcement challenges.

Therefore, the imposition of one standard commercial enforcement program upon all municipalities is neither feasible nor effective. Instead, each municipality shall be required to adopt a commercial enforcement plan (CEP). The CEP shall be adopted by all municipalities by June 30, 2009 and shall set forth the measures a municipality shall adopt to ensure compliance with the municipal recycling ordinance. The County shall assist municipalities in the development of their CEPs, and provide resources such as the compliance tracking program previously discussed. The County shall also provide training workshops for municipal officials responsible for recycling enforcement.

TABLE 10-1
ANNUAL TRENDS IN SOLID WASTE GENERATION, DISPOSAL AND RECYCLING
IN BURLINGTON COUNTY
1996 - 2006

| YEAR | GENERATION | | DISPOSAL | | | | | RECYCLING | | | |
|--------|---------------|-------------|---------------|---------------|------------------------------|---------------|--------------------|-------------|------------------|--|--|
| | Total tons | MSW tons | Bulky tons | Total tons | % of total tons generated | Total tons | % of total tons | MSW tons | % of MSW tons | | |
| 1996 | 879,129 | 286,380 | 109,447 | 395,827 | 45.0% | 483,302 | 55.0% | 166,605 | 36.8% | | |
| 1997 | 914,006 | 286,410 | 110,149 | 396,559 | 43.4% | 517,447 | 56.6% | 171,898 | 37.5% | | |
| 1998 | 668,660 | 249,547 | 95,932 | 345,479 | 51.7% | 323,181 | 48.3% | 144,690 | 36.7% | | |
| 1999 | 802,034 | 290,923 | 110,971 | 401,894 | 50.1% | 400,140 | 49.9% | 138,607 | 32.3% | | |
| 2000 | 772,903 | 309,366 | 118,125 | 427,491 | 55.3% | 345,412 | 44.7% | 160,406 | 34.1% | | |
| 2001 | 989,603 | 317,484 | 118,168 | 435,652 | 44.0% | 553,951 | 56.0% | 199,500 | 38.6% | | |
| 2002* | 1,049,940 | 322,076 | 118,859 | 440,935 | 42.0% | 569,079 | 54.2% | 212,950 | 39.8% | | |
| 2003* | 1,013,407 | 343,555 | 127,124 | 470,679 | 46.4% | 497,423 | 49.1% | 191,830 | 35.8% | | |
| 2004 | 1,058,320 | 363,707 | 134,580 | 498,287 | 47.1% | 560,033 | 52.9% | 195,676 | 35.0% | | |
| 2005 | 1,046,913 | 385,473 | 117,827 | 503,300 | 48.1% | 543,613 | 51.9% | 196,552 | 33.8% | | |
| 2006** | 1,108,508 | 383,503 | 119,014 | 502,517 | 45.3% | 605,991 | 54.7% | 241,630 | 38.7% | | |

Note:

MSW tons = Waste types 10 + 23.

Bulky tons = Waste types 13 + 13c + 25 + 27.

Source: NJDEP, NJ Generation, Disposal and Recycling Statistics.

* Source for 2002, 2003 and 2006 recycling and 2006 disposal data = Burlington County.

TABLE 10-2
DESIGNATED RECYCLABLES
BURLINGTON COUNTY

| Designated Recyclable |
|-------------------------------|
| Aluminum Cans |
| Antifreeze |
| Consumer Electronics |
| Corrugated Cardboard |
| Fluorescent Lights |
| Glass Containers |
| Lead Acid Batteries |
| Leaves |
| Metal Appliances |
| Paper |
| Plastic Bottles (coded 1 & 2) |
| Rechargeable Batteries |
| Steel (tin) Cans |
| Textiles |
| Tires |
| Used Motor Oil |

**Table 10-3
Burlington County Material Recycling Goals**

| MSW Recyclable Materials | DEP Estimated % of Waste of Stream | DEP Estimated Tons Available for Recycling | Tons Recycled in 2006 | % Recovered in 2006 | Recovery Goals (tons) |
|---|---|---|------------------------------|----------------------------|------------------------------|
| Aluminum containers | 0.30% | 3,326 | 1,020 | 31% | 1,500 |
| Yard waste (brush, tree parts, grass, leaves) | 10.00% | 110,851 | 104,005 | 94% | 105,000 |
| Corrugated | 6.00% | 66,510 | 29,184 | 44% | 40,000 |
| Food waste | 7.40% | 82,030 | 41,674 | 51% | 50,000 |
| Glass containers | 2.50% | 27,713 | 12,115 | 44% | 13,000 |
| Mixed office paper | 2.30% | 25,496 | 4,840 | 19% | 12,000 |
| Newspaper | 4.20% | 46,557 | 32,116 | 69% | 38,000 |
| Other glass | 0.40% | 4,434 | 2,457 | 55% | 2,500 |
| Other paper/magazines/junk mail | 9.10% | 100,874 | 924 | 1% | 15,000 |
| Other municipal & vegetative* | 8.30% | 92,006 | 7,066 | 8% | 25,000 |
| Other plastic | 4.80% | 53,208 | 356 | 1% | 5,000 |
| Plastic containers | 0.90% | 9,977 | 3,962 | 40% | 5,500 |
| Steel containers | 0.50% | 5,543 | 1,911 | 34% | 2,500 |
| Totals | | | 241,630 | | 315,000 |

* Other municipal vegetative includes antifreeze, household batteries, textiles, consumer electronics and used motor oil.

Note: Total waste stream in 2006 was 1,108,508 tons.
MSW waste stream total = 625,133 tons.

TABLE 10-4
COMPOSITION OF COMMINGLED RECYCLABLES
BURLINGTON COUNTY REGIONAL RECYCLING PROGRAM

| Material | 2001 | 2007 | Percent Change |
|---------------------|-------------|-------------|-----------------------|
| Aluminum containers | 5% | 5% | 0% |
| Steel containers | 10% | 8% | -2% |
| Glass containers | 68% | 63% | -5% |
| Plastic containers | 15% | 24% | 9% |

**TABLE 10-5
2007 BURLINGTON COUNTY REGIONAL RECYCLING PROGRAM TOTALS BY MUNICIPALITY**

| Municipality | Paper & Cardboard | Aluminum | Steel | Glass | Plastic | Total Tons | 2007 Disposal Savings |
|-----------------------|-------------------|------------|--------------|--------------|--------------|---------------|-----------------------|
| Bass River | 39 | 2 | 4 | 27 | 10 | 81 | \$5,217 |
| Beverly | 205 | 5 | 8 | 61 | 22 | 302 | \$19,452 |
| Bordentown City | 319 | 7 | 13 | 96 | 35 | 470 | \$30,303 |
| Bordentown Township | 671 | 18 | 32 | 237 | 85 | 1,044 | \$67,248 |
| Burlington City | 637 | 16 | 28 | 205 | 74 | 961 | \$61,887 |
| Burlington Township | 1,579 | 34 | 61 | 445 | 161 | 2,328 | \$149,947 |
| Chesterfield | 277 | 8 | 14 | 101 | 37 | 437 | \$28,141 |
| Cinnaminson | 1,372 | 30 | 54 | 396 | 143 | 1,996 | \$128,576 |
| Delanco | 365 | 8 | 14 | 103 | 37 | 527 | \$33,937 |
| Delran | 1,024 | 26 | 47 | 343 | 124 | 1,565 | \$100,780 |
| Eastampton | 363 | 10 | 17 | 124 | 45 | 558 | \$35,930 |
| Edgewater Park | 462 | 11 | 19 | 137 | 50 | 678 | \$43,677 |
| Evesham | 3,606 | 75 | 134 | 979 | 354 | 5,148 | \$331,569 |
| Fieldsboro | 40 | 1 | 2 | 15 | 5 | 64 | \$4,110 |
| Florence | 839 | 22 | 39 | 285 | 103 | 1,288 | \$82,930 |
| Hainesport | 472 | 11 | 20 | 149 | 54 | 706 | \$45,490 |
| Lumberton | 982 | 22 | 40 | 289 | 104 | 1,437 | \$92,548 |
| Mansfield | 738 | 15 | 27 | 197 | 71 | 1,048 | \$67,530 |
| Maple Shade | 1,070 | 26 | 46 | 333 | 120 | 1,594 | \$102,689 |
| Medford Lakes Borough | 503 | 10 | 18 | 135 | 49 | 715 | \$46,079 |
| Medford Township | 2,320 | 49 | 87 | 633 | 229 | 3,349 | \$215,704 |
| Moorestown | 1,957 | 37 | 66 | 480 | 173 | 2,712 | \$174,693 |
| Mount Holly | 669 | 16 | 28 | 204 | 74 | 991 | \$63,861 |
| Mount Laurel | 3,760 | 62 | 111 | 809 | 292 | 5,035 | \$324,278 |
| New Hanover | 34 | 1 | 2 | 13 | 5 | 55 | \$3,569 |
| North Hanover | 191 | 6 | 11 | 79 | 28 | 315 | \$20,311 |
| Palmyra | 447 | 12 | 21 | 151 | 55 | 685 | \$44,109 |
| Pemberton Borough | 77 | 2 | 4 | 31 | 11 | 126 | \$8,114 |
| Pemberton Township | 886 | 33 | 59 | 432 | 156 | 1,566 | \$100,852 |
| Riverside | 406 | 12 | 21 | 156 | 57 | 653 | \$42,052 |
| Riverton | 255 | 5 | 10 | 70 | 25 | 366 | \$23,591 |
| Shamong | 580 | 13 | 23 | 166 | 60 | 843 | \$54,268 |
| Southampton | 975 | 19 | 33 | 242 | 87 | 1,382 | \$89,036 |
| Springfield | 221 | 7 | 12 | 85 | 31 | 355 | \$22,879 |
| Tabernacle | 553 | 15 | 26 | 193 | 70 | 857 | \$55,188 |
| Washington | 40 | 2 | 4 | 29 | 10 | 85 | \$5,492 |
| Westampton | 729 | 16 | 28 | 204 | 74 | 1,050 | \$67,650 |
| Willingboro | 1,534 | 42 | 74 | 542 | 196 | 2,389 | \$153,846 |
| Woodland | 58 | 1 | 3 | 19 | 7 | 88 | \$5,673 |
| Wrightstown | 60 | 2 | 3 | 21 | 8 | 93 | \$6,000 |
| Ft. Dix | 40 | 1 | 2 | 13 | 5 | 61 | \$3,944 |
| McGuire | 167 | 3 | 5 | 38 | 14 | 226 | \$14,583 |
| Total* | 31,523 | 713 | 1,272 | 9,269 | 3,348 | 46,125 | \$2,970,911 |

* All material is reported in tons and was collected from single family and multifamily dwellings, schools, government offices, small businesses and non-profit entities.

Source of data: Burlington County Regional Recycling Program.

**TABLE 10-6
2007 CURBSIDE RECOVERY RATES
BURLINGTON COUNTY REGIONAL RECYCLING PROGRAM**

| Municipality* | Number of Single Family Homes | Pounds Recycled Per Household** |
|--|-------------------------------------|---------------------------------------|
| Beverly | 1,158 | 500 |
| Bordentown City | 2,500 | 343 |
| Bordentown Township | 3,000 | 676 |
| Burlington City | 3,750 | 478 |
| Burlington Township | 6,599 | 637 |
| Chesterfield | 2,000 | 432 |
| Cinnaminson | 6,800 | 569 |
| Delanco | 1,600 | 645 |
| Delran | 5,200 | 592 |
| Eastampton | 1,600 | 637 |
| Edgewater Park | 1,864 | 571 |
| Evesham | 15,300 | 572 |
| Fieldsboro | 222 | 575 |
| Florence | 3,968 | 608 |
| Hainesport | 2,202 | 627 |
| Lumberton | 3,747 | 699 |
| Mansfield | 3,462 | 581 |
| Maple Shade | 4,675 | 525 |
| Medford Lakes Borough | 1,550 | 901 |
| Medford Township | 7,751 | 815 |
| Moorestown | 8,400 | 618 |
| Mount Holly | 3,021 | 638 |
| Mount Laurel | 16,000 | 557 |
| New Hanover | 280 | 367 |
| Palmyra | 2,500 | 528 |
| Pemberton Borough | 600 | 420 |
| Pemberton Township | 8,107 | 356 |
| Riverside | 2,449 | 509 |
| Riverton | 967 | 741 |
| Shamong | 2,050 | 793 |
| Southampton | 4,694 | 582 |
| Springfield | 1,183 | 601 |
| Tabernacle | 2,352 | 687 |
| Washington | 400 | 426 |
| Westampton | 3,150 | 613 |
| Willingboro | 11,500 | 398 |
| Wrightstown | 350 | 469 |
| Total Homes | 146,951 | |
| Average Recovery per Household*** | | 553 |

* Bass River, North Hanover and Woodland Townships are not listed since they do not recycle curbside.

** Pounds recycled include paper, cardboard, bottles and cans.

*** Based on 41,124 tons from non-military, single family sources.

TABLE 10-7
DEPOT RECOVERY RATES
BURLINGTON COUNTY

| Municipality | Number of Homes | Pounds per Household |
|---------------|-----------------------|----------------------------|
| | | |
| Bass River | 548 | 296 |
| North Hanover | 1,271 | 430 |
| Woodland | 506 | 121 |

**TABLE 10-8
RECYCLING CAPACITY AND SITING GUIDELINES FOR MULTIFAMILY COMPLEXES**

| Material | Fiber (paper and cardboard) | Commingled (bottles and cans) |
|---|---|--|
| Minimum Container Capacity Requirements for Weekly Recycling Service | | |
| Non-Age Restricted Complex | One cubic yard of capacity for every 15 dwelling units | 95 gallons of capacity for every 18 dwelling units |
| Age Restricted Complex | One cubic yard of capacity for every 20 dwelling units | 95 gallons of capacity for every 24 dwelling units |
| <p>Unless expressly prohibited by a municipality, or not feasible due to existing site constraints, recycling containers for all Class A designated recyclables shall be co-located at all solid waste collection areas within a multifamily complex.</p> | | |

TABLE 10-9
TONS OF CONSUMER ELECTRONICS COLLECTED IN BURLINGTON COUNTY
2000 - 2007

| Year | Tons |
|--------------|-------------|
| 2000 | 10 |
| 2001 | 25 |
| 2002 | 33 |
| 2003 | 25 |
| 2004 | 48 |
| 2005 | 85 |
| 2006 | 99 |
| 2007* | 136 |
| Total | 461 |

* 51 tons were collected through the Reconnect Program.

**TABLE 10 - 10
DEP MUNICIPAL ORIGIN CODES**

| Municipality | County Code | Municipal Code |
|-------------------------|--------------------|-----------------------|
| Bass River Township | 03 | 1 |
| Beverly City | 03 | 2 |
| Bordentown City | 03 | 3 |
| Bordentown Township | 03 | 4 |
| Burlington City | 03 | 5 |
| Burlington Township | 03 | 6 |
| Chesterfield Township | 03 | 7 |
| Cinnaminson Township | 03 | 8 |
| Delanco Township | 03 | 9 |
| Delran Township | 03 | 10 |
| Eastampton Township | 03 | 11 |
| Edgewater Park Township | 03 | 12 |
| Evesham Township | 03 | 13 |
| Fieldsboro | 03 | 14 |
| Florence Township | 03 | 15 |
| Hainesport Township | 03 | 16 |
| Lumberton Township | 03 | 17 |
| Mansfield Township | 03 | 18 |
| Maple Shade Township | 03 | 19 |
| Medford Township | 03 | 20 |
| Medford Lakes Borough | 03 | 21 |
| Moorestown Township | 03 | 22 |
| Mount Holly Township | 03 | 23 |
| Mount Laurel Township | 03 | 24 |
| New Hanover Township | 03 | 25 |
| North Hanover Township | 03 | 26 |
| Palmyra Borough | 03 | 27 |
| Pemberton Borough | 03 | 28 |
| Pemberton Township | 03 | 29 |
| Riverside Township | 03 | 30 |
| Riverton Borough | 03 | 31 |
| Shamong Township | 03 | 32 |
| Southampton Township | 03 | 33 |
| Springfield Township | 03 | 34 |
| Tabernacle Township | 03 | 35 |
| Washington Township | 03 | 36 |
| Westampton Township | 03 | 37 |
| Willingboro Township | 03 | 38 |
| Woodland Township | 03 | 39 |
| Wrightstown Borough | 03 | 40 |

Appendices

APPENDIX A
THE BURLINGTON COUNTY
DISTRICT SOLID WASTE MANAGEMENT PLAN
AND AMENDMENTS THERETO

1979

Solid Waste Management Plan for Burlington County, prepared by Weston Environmental Consultants and Richard A. Alaimo Associates, dated June 22, 1979. *Certified 12/13/79*

1980

Final Modifications to the 1979 Solid Waste Management Plan for Burlington County, N.J. *Certified 10/27/80*

1982

82-1 1982 Modifications to the Burlington County District Solid Waste Management Plan *Certified 4/18/83*

1983

83-1 Inclusion of Site Location and New Proposed Solid Waste Facility, Trofe Incinerator *Certified 11/18/83*

1984

84-1 Redirection of Waste to Parklands Reclamation Project Landfill and Landfill and Development Landfill *Certified 8/30/84*

84-2 Policy for Leaf and Vegetative Waste Composting *Certified 1/2/85*

1985

85-1 Modification of the District Solid Waste Management Plan to include Block 173, Lot 10 in Florence Township and Block 44, Lot 3 in Mansfield Township as part of the site for the Burlington County Resource Recovery Complex *Certified 10/4/85*

1986

86-1 Financial Plan and Schedule for Disbursement of Funds in the Burlington County District Resource Recovery Tax Fund *Certified 12/5/86*

86-2 Waste Flow Redirection to the Fort Dix Heat Recovery Incinerator *Certified 12/5/86*

86-3 Burlington County Recycling Plan *Certified 12/5/86*

APPENDIX A
THE BURLINGTON COUNTY
DISTRICT SOLID WASTE MANAGEMENT PLAN
AND AMENDMENTS THERETO

1986 continued

- 86-4 **Sludge and Septage Management Plan (Cross adopted as Amendment to the 201 Sludge and Septage Management Plan adopted by the Board of Chosen Freeholders pursuant to 33 U.S.C. §§ 1281, 1288 and N.J.S.A. 58:11A-1 et seq.)** *Original Certification issued 1/26/87, Modified Certification issued 6/15/88, Certification Appealed and Final Certification issued 1991*
- 86-5 **Volumetric Expansion of the Parklands Reclamation Project Landfill, Bordentown Township, Burlington County** *Certified 6/12/87*

1987

- 87-1 **Solid Waste Disposal Contingency Plan** *Certified 2/19/88*
- 87-2 **Mandatory Access Routes to the Burlington County Solid Waste Facilities Complex** *Certified 3/3/88*

1989

- 89-1 **Amendment to Closure and Post-Closure Plan, Parklands Reclamation Project Landfill, Bordentown Township, New Jersey** *Certified 3/14/89*
- 89-2 **Recycling Center, Winzinger Recycling Systems, Hainesport Township, New Jersey** *Denied*
- 89-3 **Clarification of Waste Flow Program, Fort Dix Heat Recovery Incinerator** *Certified 8/24/89*
- 89-4 **Recycling Center, Proposed by Robert T. Winzinger, Inc., Delanco Township, New Jersey** *Denied*

1990

- 90-1 **Financial Plan and Schedule for Disbursement of Funds in the Burlington County Resource Recovery Investment Tax Fund** *Certified 9/6/90*
- 90-2 **Recycling Center, Burlington Asphalt Corporation, Lumberton and Hainesport Townships** *Certified 11/4/90*
- 90-3 **Policies Relating to the Use of Mobile Equipment for the processing of Solid Waste and Recyclables** *Certified 11/4/90*
- 90-4 **Recycling Center, Occupational Training Center of Burlington County, Inc., Lumberton Township, New Jersey** *Withdrawn*

APPENDIX A
THE BURLINGTON COUNTY
DISTRICT SOLID WASTE MANAGEMENT PLAN
AND AMENDMENTS THERETO

1990 continued

- 90-5 **Recycling Center, Occupational Training Center of Burlington County, Inc., Eastampton Township, New Jersey** *Certified 3/22/91, but not implemented.*
- 90-6 **Recycling Center, Township of Lumberton** *Certified 8/16/91, but not implemented.*

1992

- 92-1 **Resource Recovery Investment Tax** *Certified 8/18/92*

1993

- 93-1 **Class A Recycling Center, Occupational Training Center of Burlington County, Inc., Westampton Township, New Jersey** *Certified 1/26/94*

1995

- 95-1 **Expansion to Sunnyside Farms Operation for the Land Application of Residuals, Westampton Township, New Jersey** *Withdrawn*

1996

- 96-1 **Expansion to the BFI Transfer Station for the Processing of Municipal Solid Waste, Mount Laurel, New Jersey** *Withdrawn*

1997

- 97-1 **Procedures governing participation in the Solid Waste Management System established by the Burlington County Board of Chosen Freeholders** *Certified 11/10/97*

1998

- 98-1 **Financing of the Solid Waste and Recycling Facilities and Programs necessary for implementation of the District Solid Waste Management Plan** *Certified 4/29/98*

2001

- 01-1 **Class B Recycling Facility, Mimplitsch Enterprises, Evesham Township** *Certified 9/25/01*
- 01-2 **Class B Recycling Facility, Moorestown Township, Moorestown** *Certified 9/25/01*
- 01-3 **Class B Recycling Center, Herman's Trucking, North Hanover Township** *Certified 10/11/01*

APPENDIX A
THE BURLINGTON COUNTY
DISTRICT SOLID WASTE MANAGEMENT PLAN
AND AMENDMENTS THERETO

2001 continued

- 01-4 **Inclusion of Block 44, Lot 5.03 in the list of Blocks and Lots that comprise the Burlington County Resource Recovery Complex** *Certified 9/25/01*
- 01-5 **Update of Procedures for Consideration of Amendments to the Burlington County District Solid Waste Management Plan** *Certified 9/25/01*

2003

- 03-1 **Class D Recycling Facility, Federal Prison Industries, Inc. (UNICOR), New Hanover (Fort Dix)** *Certified 9/25/01*

2004

- 04-1 **Class B Recycling Facility, Pierson Construction Company, Lumberton Township**
Withdrawn 3/22/04

APPENDIX B
Guidelines for the Granting of Municipal Exemptions for Commercial and Institutional Establishments

In considering applications for exemptions, municipalities should recognize that source separation is the general rule and preferred means to separate recyclable materials from the solid waste stream as set forth by P.L. 1987, c.102, the State Mandatory Source Separation and Recycling Act and the Burlington County District Plan. Consideration for granting exemptions should be based upon specific situations where a generator demonstrates special reasons or situations which support substantial difficulty or inability to source separate. The municipality should prepare an application which must be executed by the applicant.

At a minimum, the municipality should include the following data requests in its application:

1. Set forth the specific obstacles that prevent the generator from complying with the municipal source separation requirement;
2. Provide the name, location and NJDEP facility number of the materials recovery facility (MRF) the generator intends to use for disposition of the designated materials;
3. Provide documentation that the MRF has the ability to accurately report the generator's recycling tonnages on an annual basis;
4. Provide the name and address of the generator's solid waste hauler.
5. Provide an estimate of the annual tonnages of solid waste and designated recyclables generated by your facility;
6. State the materials that will be recycled at the MRF on behalf of the generator;
7. State how materials were recycled prior to the date of this application;
8. List all violations incurred by the generator with respect to storage, collection or disposition of solid waste or recyclables;
9. The application shall also include a provision of any exemption granted that the applicant and the operator shall provide the municipality and County the following: a) a report filed every six months listing all tonnages; b) the application and all correspondence relating thereto shall be filed with the municipality and the County including, but not by way of limitation, correspondence and reports from the generator, the operator and the municipality.
10. Any exemption granted by the municipality shall be granted for a limited period of one year and thereafter, the generator should reapply each year to the municipality for the exemption. The reapplication should indicate the continuing need for the exemption, a statement that there have been no violations. If there are violations, address each violation specifically setting forth what remedial action has been taken to avoid future violations.
11. The application shall be notarized and the municipality should assign penalties against generator for deliberate misrepresentation of facts;

The application, in addition to any other information sought by the municipality, should also include the name and address of the applicant, and should describe its facility and the nature of the waste generated. If the commercial establishment or institution has more than one location, it should list all other locations, describe the waste generated there, and set forth its program for meeting the recycling requirements.

APPENDIX C
Recycling Plan Component for New Developments

- A. Any application to the planning board of the municipality of _____, for subdivision or site plan approval for the construction of multi-family dwellings of three or more units, single family developments of 50 or more units or any commercial, institutional, or industrial development for the utilization of 1,000 square feet or more of land, must include a recycling plan. This plan must contain, at a minimum, the following:
1. A detailed analysis of the expected composition and amounts of solid waste and recyclables generated at the proposed development and
 2. Locations documented on the application's site plan that provide for convenient recycling opportunities for all owners, tenants, and occupants. The recycling area shall be of sufficient size, convenient location and contain other attributes (signage, lighting, fencing, etc.) as may be determined by the municipal recycling coordinator.
- B. Prior to the issuance of a Certificate of Occupancy by the municipality of _____, the owner of any new multi-family housing or commercial, institutional, or industrial development must supply a copy of a duly executed contract with a hauling company for the purposes of collection and recycling of source-separated recyclable materials, in those instances where the municipality does not otherwise provide this service.
- C. Provision shall be made for the indoor, or enclosed outdoor, storage and pickup of solid waste, to be approved by the municipal engineer.

APPENDIX D
Construction and Demolition Recycling Ordinance

Chapter _____
Definitions
Construction, Renovation, Demolition Debris Recovery Plan
Review of Debris Recovery Plan
Diversion requirement adjustment
Debris recover plan reporting requirements
Compliance with diversion requirement
Appeal to the _____
Enforcement
Violations and Penalties

Definitions

Covered project- means a construction, renovation, or demolition project for which a building permit or a demolition permit is required, and for which a dumpster or roll off - container shall be placed on premises for the purpose of placement of solid waste materials.

Construction, Renovation and Demolition Debris Recovery Plan

A debris recovery plan shall be filed with the municipal recycling coordinator prior to the commencement of any activity for which municipal approval is required as further identified above. The debris recovery plan shall identify the types and estimated quantities of construction and demolition debris to be generated from the project, how each material will be managed, and the name of each facility or service provider that the entity will use to manage each material. The plan shall further detail how the applicant shall ensure that a minimum of 50% of the materials to be generated will be separated and recycled.

Review of Debris Recovery Plan

- A. Approval: A debris recovery plan shall be reviewed by the municipal recycling coordinator, and approved if it provides for all of the information required by this Ordinance. An approved debris recovery plan shall be marked "Approved" and returned to the owner of the entity which submitted the plan.

- B. Denial: A debris recovery plan shall not be approved if it does not provide all of the information required by this Ordinance. If a debris recovery plan is not approved, the owner of the entity which submitted the plan, shall be notified in writing that the plan has been rejected, including the reasons for the rejection. In order to obtain the building or demolition permit sought, the owner of the entity which will carry out the construction, renovation, or

demolition project shall make the required changes and resubmit the debris recovery plan to the municipal recycling coordinator.

Diversion requirement adjustment

- A. Application: If the owner of an entity carrying out a covered project experiences circumstances that makes it infeasible to comply with the diversion requirement cited in this Ordinance, the owner of the entity may apply for an adjustment. The owner shall indicate in writing why it is infeasible to divert 50% of the materials being generated from the covered project and specify what percentage of diversion could be achieved. Increased costs to the owner of the entity carrying out the covered project will not be an acceptable justification for an adjustment.
- B. Review: The municipal recycling coordinator shall review the information supplied by the owner. If warranted the municipal recycling coordinator shall attempt to contact the owner to discuss possible ways of meeting the diversion requirement.
- C. Granting of an adjustment: If the municipal recycling coordinator determines that it is infeasible for the entity carrying out a covered project to divert 50% of the generated C&D debris from the covered project, the percent of diversion required shall be adjusted. The owner shall be notified in writing of the adjusted diversion requirement. The owner of the entity carrying out the covered project shall be required to divert the percent of C&D debris required by the adjustment.
- D. Denial of adjustment: If the municipal recycling coordinator determines that it is feasible for the owner of an entity carrying out a covered project to meet the diversion requirement cited in this Ordinance, the owner shall be notified in writing of the denial of the diversion requirement adjustment.

Debris recovery plan reporting requirements

Documentation: Upon completion of the covered project, but before the final inspection, the owner of the entity carrying out a covered project shall submit in person or by certified mail to the municipal recycling coordinator, the documentation required to demonstrate that the applicant has met the diversion requirement. The required documentation shall include the following:

- A. A completed debris recovery report, signed by the owner of the entity carrying out a covered project, indicating the quantity of each material generated during the covered project diverted or disposed,
- B. Receipts from all facilities or service providers utilized to divert and dispose materials generated during the covered project, and

- C. Any additional information that the owner of the entity carrying out the covered project believes is relevant to determining compliance with the diversion requirement.

Compliance with diversion requirement

The municipal recycling coordinator shall review the information submitted pursuant to this Ordinance and determine whether the owner of the entity carrying out the covered project has complied, or failed to comply with the diversion requirement. The determination regarding compliance will be provided to the owner of the entity carrying out the covered project in writing.

Appeal

An owner of the entity carrying out the covered project may appeal a determination of failure to comply under this Ordinance to the municipality within 30 days of the decision or determination. The appeal shall be in writing and shall state the facts and basis for the appeal. A decision by the (department where appeal is to be filed) shall be final.

Enforcement

The Code Enforcement Official, the Police Department, the Department of Health, the Recycling Coordinator, the Property Maintenance Official, and the Housing Officer are hereby individually and severally empowered to enforce the provisions of this Ordinance. The respective enforcing official may, in his or her discretion, post warning stickers for a first offense. An inspection may consist of dumping and opening of solid waste bags of containers to detect, by sound or sight, the presence of any recyclable material.

Violations and Penalties

Any person, corporation, occupant, or entity that violates or fails to comply with any provision of this Ordinance or any of the rules and regulations promulgated hereunder shall, upon conviction thereof, be punishable by a fine not less than \$250, nor more than \$1000.

Severability; Effective Date

If it is determined, by a Court of competent jurisdiction, that any provision or section of this Ordinance is unconstitutional, all other sections and provisions shall remain in effect. This Ordinance shall take effect immediately.

