



XII. RECYCLING ELEMENT

April 17, 2008

Adopted by the Township of Randolph Planning Board on May 5, 2008



XII. RECYCLING ELEMENT

1.0 INTRODUCTION

The recycling element, in accordance with purpose O of Municipal Land Use Law – N.J.S.A. 40:55D-1 et. Seq. (MLUL), is intended to promote the maximum practicable recovery and recycling of recyclable materials from municipal solid waste through the use of planning practices designed to incorporate the State Recycling Plan goals and to complement municipal recycling programs. This element is intended to reflect changes in federal, State, county and municipal laws, policies and objectives concerning the collection, disposition and recycling of designated recycling materials as required by N.J.S.A. 13:1E-99.16.6c. Specifically, the element addresses the Solid Waste Management & Sludge Management State Plan Update of January, 2006 and the Morris County Solid Waste Management Plan (MCSWMP) update of March, 2007. In addition, the element incorporates the following as required the MLUL 40:55D-28(12) which states:

(12). A recycling plan element which incorporates the State Recycling Plan goals, including provisions for the collection, disposition and recycling of recyclable materials designated in the municipal recycling ordinance, and for the collection, disposition and recycling of 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 multi-family residential housing and any commercial or industrial development proposal for the utilization of 1,000 square feet or more of land;

2.0 BACKGROUND

The Township of Randolph administers its own recycling program at the Recycling Center at the intersection of Morris and Sussex Turnpikes. The Recycling Center accepts materials from Randolph residents only. Recycling materials are collected via curbside collection or by direct delivery to the Recycling Center. Residents may drop off recyclables at the Recycling Center Monday through Friday (7:30 – 3:00), Saturday (8:00 to 3:45) and Sunday (9:00 to 2:45). Vehicles entering the Recycling Center must have a residency sticker in the window in order to enter the facility. In addition, residents may also use curbside pick-up to recycle materials. Curbside pick-up is collected twice per month (garbage is collected once a week) along all town streets with the exception of garden apartment complexes.

Table XII-1 illustrates the municipal solid waste and recycling activity for the Township from 2004 through 2007.

Table XII-1				
Township of Randolph				
Summary of Municipal Solid Waste and Recycling Activity				
Category (tons)	2004	2005	2006	2007
Glass	978.9	981.6	977.5	1000.7
News Paper	1107.8	1246.9	1353.2	1323
Cardboard	1718.2	1497.1	1333.3	1263.5
Office Paper	0	0	0	0
Oil	15.9	15.9	2.7	23.1
Batteries	10.2	12	11.5	9
Lightbulbs	0.3	0.4	0.2	1
Tires	32.7	29.6	30.2	23.9
Metal	361.7	345.7	319.4	294.1
Anti Freeze	0.4	0.2	0.1	0.1
Asphalt	22.5	270	480	269.6
White Goods	41.2	43.2	39.2	49.9
Grass Clippings	387	400.5	400.5	372.1
Leaves	20843	17654	4992	2872.5
Stumps	250	20	7.1	72
Total Recycled	25766	22517	9946.7	7574.4
Total Solid Waste	47715	41292.6	16226.9	11538.6

Source: Township of Randolph Health Department and Public Works Department

3.0 SOURCE SEPARATION

As defined in N.J.S.A. 13:1E-99.12. Definitions, the terms "source separation" or "source separated" means "the process by which materials are separated at the point of generation by the generator there of from solid waste for the purposes of recycling." MCSWMP reaffirms that "source separation" is the primary method of separating the recyclable waste stream from the solid waste stream for the following reasons:

- Source separation is mandated by law under the New Jersey Source Separation and Recycling Act (N.J.S.A 13:1e-99 et. seq.). In support of this law, the MCMUA favors a consistent source separation policy throughout the residential, commercial and institutional sectors.
- Source separation promotes the removal of all designated recyclable materials from the waste stream and, therefore, helps in achieving high reduction rates.
- Source separation promotes clean, marketable materials by limiting levels of contamination.
- Contamination undermines long-term marketability of recyclable materials.
- Source separation enables the recycler at the source to receive the economic benefits of cost avoidance by not disposing of recyclable materials as solid waste as well as enabling the recycler to receive revenue by the sale of the recyclable material.

- Source separation fosters a free market, independent of the solid waste collection and disposal system. This reduces the need for burdensome regulations and costly enforcement.
- Proper documentation is difficult, if not impossible, when recyclables are mixed with solid waste.
- Source separation fosters competition among recycling companies, thereby keeping costs low and quality of services high.
- Source separation encourages a thought process for each individual recycler that solid waste disposal is every person's responsibility. This can foster further source reduction and recycling activities at work, home and school.

4.0 MATERIALS MANDATED TO BE SOURCE SEPARATED AND RECYCLED

Morris County has designated a list of materials that are mandated to be source separated and recycled. This means that all of the materials as defined in the list that are generated within Morris County's borders by any and all generators, must be kept separate from solid waste (garbage) at the point when and where it is generated, and then the materials must be recycled. At no time are these mandated materials to be mixed with solid waste. These materials are therefore banned from the county's disposal system which currently includes two transfer stations and out-of-state landfills.

The following materials are mandated to be source separated and recycled in Morris County, New Jersey:

- **Aluminum Cans** Cans made from aluminum that was manufactured to hold a serving of a beverage. Specifically omitted from this definition are aluminum foil and aluminum pie plates.
- **Glass Bottles and Jars** Bottles and jars made from glass including clear, brown and green glass. A bottle is defined as a receptacle having a narrow neck and a mouth that can be corked or capped. A jar is defined as a wide mouthed container that can be capped. Caps and lids not included. Specifically omitted from this definition are drinking glasses, windows, mirrors, light bulbs, and anything made of Pyrex® or ceramic.
- **Plastic Bottles (coded 1 and 2)** Plastic bottles coded to indicate that they are comprised of the specific types of plastic compounds (polymers) known as polyethylene terephthalate (PETE) or high density polyethylene (HDPE). See symbols to the left. A bottle is defined as a receptacle having a narrow neck and a mouth that can be corked or capped. Caps and lids not included. Any item made of plastic that is not a bottle, and any plastic bottle without one of the symbols shown to the left is specifically omitted from this definition.
- **Steel (Tin) Cans** An air-tight container for the distribution or storage of goods, composed of thin, usually ferrous metal. Examples are soup cans and tuna fish cans.
- **Newspaper** A publication containing news, information and advertising, usually printed on low-cost paper called newsprint. Newspaper may include glossy inserts which come with the paper, dependent upon the market conditions at the time.
- **Corrugated Cardboard** Shipping containers made with Kraft paper linerboard and corrugated medium.
- **Mixed Paper** Various categories of recyclable paper including, but not limited to white and colored paper used in printers, photocopiers and fax machines, white and colored ledger

paper, carbonless copy paper, construction paper, undeliverable mail, mailed promotional letters/ advertisements/circulars, magazines, catalogues, envelopes, soft cover books.

- **Leaves** Vegetative material, typically generated in the autumn when they fall from trees and then are raked from residents' and/or commercial lawns.
- **Grass Clippings** Vegetative material generated when grass (lawns) are cut.
- **Brush** Branches, woody plants and other similar vegetative material. Leaves and grass do not constitute brush.
- **Natural Wood Waste** Logs, stumps, branches and other wood tree parts. Dimensional lumber is omitted from inclusion in this definition.
- **Oil-Contaminated Soil** Non-hazardous soil that contains petroleum hydrocarbons (gasoline, diesel, kerosene, jet fuel, #4 & #6 heating oil and certain other refinery products including coal tar). This type of soil shall be determined to be non-hazardous in accordance with the standards set forth in N.J.A.C. 7:26.
- **Used Motor Oil** Motor oil from motor vehicles, lawn mowers, boats, etc., which has served its intended useful purpose.
- **Lead-Acid Batteries** Storage batteries in which the electrodes are grids of lead containing lead oxides that change in composition during charging and discharging, and the electrolyte is dilute sulfuric acid. These include starting batteries such as car batteries that deliver a short burst of high power to start the engine. In addition, they may include deep cell batteries found on boats or campers used to power accessories like trolling motors, winches or lights.
- **Hazardous Dry Cell Batteries** Rechargeable batteries, such as nickel-cadmium, nickel-iron, nickel, metal hydride, lithium ion, small sealed lead acid, etc. These are often used as substitutes for non-rechargeable batteries in standard sizes such as AAA, AA, C, D and 9V. Rechargeable batteries are commonly found in cordless tools, cellular and cordless phones, laptop computers, cameras, remote controls, toys, etc. Also included in this definition are non-rechargeable batteries that are hazardous as defined by the Resource Conservation Recovery Act ("RCRA"), regardless of the RCRA exclusion of household waste from the definition of hazardous waste pursuant to 40 C.F.R. 261.4(b). Non-rechargeable, hazardous batteries include older alkaline and carbon zinc batteries as well as silver oxide, mercury and magnesium button-type batteries, etc. It should be noted that domestically manufactured alkaline and carbon zinc non-rechargeable batteries made after circa 1994 eliminated mercury content to the point that they should not be considered RCRA hazardous and therefore are not included in this material category.
- **Metal Appliances** Appliances composed predominantly of metal, and may include stoves, washing machines and dryers, for example, if the appliance is predominantly metal. Also included are air conditioners, refrigerators and dehumidifiers if they are predominantly metal. If these appliances on the latter list contain refrigerants that are prohibited by the Clean Air Act from being knowingly vented, the refrigerant must be recovered accordingly.
- **Whole Tires*** Tires that are whole, not chipped into small pieces. *Tires are allowed to be recycled and/or incinerated for energy recovery.

The following materials are not mandated to be source separated and recycled, however the MCSWMP recommends that municipalities include these materials in their municipal waste management programs in order to provide generators of these materials with the proper waste management outlet:

- Scrap Metal

- Textiles
- Appliances Containing Refrigerants
- Cell Phones
- Electronics
- Devices Containing Mercury
- Toner Cartridges
- Fluorescent Light Bulbs
- Christmas Trees
- Concrete
- Asphalt

The following materials are accepted at the Township of Recycling Center without restriction. Asterisks (*) indicate the items which are also eligible for curbside collection:

- **Batteries** Car and household (alkaline, carbon zinc, zinc air, mercury oxide, silver oxide, lithium, AAA, AA, C, D and AV-drycells). No special handling required.
- **Books** Books are now accepted at the Recycling Center and require no special handling.
- **Branches** Basic yard debris. Maximum acceptable branch size is 4 feet long by 4 inches in diameter.
- **Cans*** Aluminum (soda) and tin/steel (tuna) food and beverage cans.. No paint/aerosol cans, pie plates or aluminum foil. Maybe co-mingled with glass and plastic at the Recycling Center and for curbside collection.
- **Cardboard and Chipboard*** All corrugated paper materials, chipboard (cereal boxes, pizza boxes, gift boxes...no waxed chipboard, as in orange juice cartons). For curbside pickup; co-mingle chipboard, mixed paper and brown paper bags. Maximum bundle weight: 50 lbs.
- **Clothing, Toys and Household Goods** No food donations.
- **Fluorescent Lights** Unbroken lights only.
- **Glass*** Clear, green/blue & brown beverage and food containers. No drinking glasses, ceramic dinnerware, crystal, light bulbs, plate, window glass, mirrors or lab (test tubes) glass. Maybe co-mingled with plastic and cans at the Recycling Center and for curbside collection.
- **Grass Clippings** Grass clippings may be dropped off at the Recycling Center on weekends only. No other lawn debris.
- **Mercury Thermometers** Glass thermometers containing mercury may be disposed of at the Health Department which has a receptacle for the collection of this common household item. The Morris County Municipal Utilities Authority (MCMUA) will retrieve them when necessary at no cost to the township.
- **Mixed Paper*** Newspapers, junk mail, telephone directories, catalogs, wrapping paper, magazines, books. Also computer paper, envelopes and card stock. Maybe co-mingled. Curbside collection: Maybe co-mingled with chipboard and brown bags. Maximum container/bundle weight: 50 lbs.
- **Motor Oil** All kinds accepted. Must be transported in appropriate containers.
- **Plastic*** Pourable plastic (mouth is smaller than the base) #1 and #2 containers only. Please, no tubs (ice cream/ butter/yogurt), motor oil or antifreeze bottles, any petroleum products, plastic bags, toys or trays. Maybe co-mingled with cans and glass at the Recycling Center and for curbside collection.

- **Scrap Metal** Lawn chair frames, filing cabinets, tools, window frames, metal railings, nails, metal hangers, and some small appliances. All non-metal materials must be stripped.
- **Tires** Automobile, truck and bike tires. Remove steel rims. Curbside collection: limit 1 per pickup.
- **White Goods*** Large household appliances (stoves, refrigerators, washers, dryers, dishwashers etc.). No special handling required. Curbside collection is available year-round by advance arrangement. To have one or more of these items removed, contact the Health Department.

The following items not accepted at the Recycling Center:

- | | |
|---------------------------------|----------------------------------|
| • Asbestos | • Kerosene |
| • Automobile | • Oil-Based Paints/Stains |
| • Fluids | • Pesticides |
| • Computers | • Pool Chemicals |
| • Construction Materials | • Propane Tanks |
| • Driveway Sealer/Tar | • Siding |
| • Gasoline | • Smoke Detectors |
| • Herbicides | • Televisions |
| • Insulation | |

The majority of prohibited materials not accepted at the Recycling Center may be brought to the Mt. Olive Transfer Station on Gold Mine Road. If generated in Morris County, this material is required to go to the MCMUA transfer station if it is being disposed of. For details on hazardous and non-hazardous waste, regulations, special handling and fees, residents may contact the Morris County Municipal Utilities Authority (MCMUA). In addition, the MCMUA holds three household hazardous waste and computer/TV disposal events during the year.

The following items are ineligible materials not required to be recycled and may be disposed of with the regular trash (motor oil, antifreeze, gasoline, kerosene and latex paint containers must be completely empty before being disposed of):

- | | |
|-------------------------------|------------------------------------|
| • Window Glass | • Butter/Margarine Tubs |
| • Mirrors | • Cottage Cheese Containers |
| • Vases | • Yogurt Containers |
| • Ceramics | • Plastic Utensils |
| • Dishes | • Plastic Toys |
| • Flower Pots | • Plant Trays & Pots |
| • Beer & Wine Caps | • Styrofoam |
| • Drinking Glasses | • Motor Oil Containers |
| • Light Bulbs | • Antifreeze Containers |
| • Headlights | • Gasoline Containers |
| • Aluminum Foil | • Kerosene Containers |
| • Pie Plates | • Latex Paint |
| • Oven Cookware | |

5.0 PROVISIONS FOR PLAN IMPLEMENTATION

The conservation of recyclable materials has become an important public concern by reason of the growing problem of solid waste disposal and its impact on our environment and there is an increasing necessity to conserve our natural resources. Morris County has accepted the State policy directive of achieving at least a fifty (50%) percent recycling rate of Municipal Solid Waste (MSW) by 2015. Therefore, the Township of Randolph accepts the State policy directive of achieving at least a fifty (50%) percent recycling rate of Municipal Solid Waste by 2015 as stipulated by N.J.S.A. 13:1E-99.13.b(4)(c). In order to achieve this goal, the following provisions are to be implemented:

5.1 Township of Randolph Land Development Ordinance

Chapter 15-73 (Solid Waste and Recyclables) of Article V, Site Plan and Subdivision Requirements, of the Land Development Ordinance should be amended and revised as follows:

- A. All developments shall provide for adequate disposal of solid waste and provisions for handling recyclable materials.
- B. For nonresidential uses and multi-family developments there shall be at least one (1) location for trash disposal and recyclable material situated either within a building or within the side or rear yard. Exterior trash and recyclable containers shall be fully screened with a gated enclosure constructed of board on board fence or a similar material. The distance between opposite boards shall not exceed two (2) inches. The enclosure shall not exceed a six (6) foot height and shall be buffered from within the site and from any lot line or street line with landscaping in accordance with an approved plan by the Board.
- C. Solid waste and recycling storage areas shall be set back a minimum of ten (10) feet from adjoining property lines and are prohibited within the front yard. For any development proposal of 50 or more single-family detached dwelling units, or 3 or more units of multi-family dwellings, and for any commercial or industrial development proposal for the utilization of 1,000 square feet or more of land, the location and number of recycling containers, and the collection and disposition of recyclables must be provided for and approved of by the Board with jurisdiction. The applicant shall submit a recycling plan in compliance with the Statewide Mandatory Source Separation Act, as referred to in the Municipal Land Use Law, N.J.S.A. 40:55D-28b(12). The recycling plan shall contain a detailed analysis of the expected composition and amounts of solid waste and recyclables generated at the proposed development.
- D. Adequate access shall be provided to all solid waste and recycling storage facilities for convenient recycling opportunities for all owners, tenants and occupants. Such access shall accommodate the type of vehicle normally used for the collection of wastes. The area for solid waste and recycling shall be large enough to accommodate the expected and amounts of solid waste and recyclables generated at the proposed development.
- E. Prior to the issuance of a Certificate of Occupancy by the Township of Randolph, 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 to the Township Recycling Coordinator.

5.2 Residential Dwelling Compliance

It shall be mandatory for persons, except those physically disabled, who are owners, managers, lessees or occupants of residences, including garden apartments, with the township to separate

designate recyclable materials from all other solid waste produced by such establishments and institutions and to recycle these materials in strict conformity with this article and all applicable regulations.

5.3 Commercial Establishments and Institutions Compliance

It shall be mandatory for all commercial establishments and institutions within the township to separate designate recyclable materials from all other solid waste produced by such establishments and institutions and to recycle these materials in strict conformity with this article and all applicable regulations.

Pursuant to N.J.S.A. 13:1E-99.16.6(d), the governing body of the Township of Randolph may exempt commercial or institutional premises within the township from the source separation requirements of this Chapter. To be eligible for an exemption from this Article, a commercial or institutional generator of solid waste shall file an application for exemption with the Recycling Coordinator on forms to be provided for this purpose. The forms shall include, at a minimum, the following information: the name of the commercial or institutional entity; the street address location and block and lot designation; the name, official title and phone number of the person making application on behalf of the commercial or institutional entity; the name, address and official contact person and telephone number of the facility which provides the service of recycling those designated recyclable materials, and a certification that the designated recyclable materials will be recycled, and that, at least, on an annual basis, said recycling service provider or commercial/institutional generator shall provide written documentation to the Recycling Coordinator of the total number of tons collected and recycled for each designated material.

All food service establishments, as defined in the Health Code of the Township of Randolph, shall, in addition to compliance with all other recycling requirements of this chapter, be required to recycle grease and/or cooking oil created in the processing of food or food products, and maintain such records for inspection by any authorized agent.

5.4 Cardboard and Mixed Paper

All commercial and residential generators in the township should separate and recycle corrugated cardboard and mixed paper from all other solid waste. Commercial establishments and institutions should be responsible for establishing their own recycling programs for the collection, transportation and marketing of these materials.

6.0 RECOMMENDATIONS

The following recommendations are provided with others outlined in the element to promote the maximum practicable recovery and recycling of recyclable materials from municipal solid waste in an efficient manner:

1. Randolph Township should continue to administer its recycling program and coordinate efforts with Morris County and surrounding Townships to explore new and innovative ways to collect, store, process, and recycle materials.

2. The Township should consider minimizing administrative costs where opportunities exist to consolidate recycling efforts. Since the Township has bimonthly pick-up it should consider the sharing of equipment, resources, and thus, the cost of recycling with other municipalities.

3. In order to meet the state's requirements for scheduling pickups and maintain the current Leaf Collection Program, it is necessary that the volume of leaves placed at the street be reduced. Residents are urged to dispose of leaves on their own properties whenever possible. Blowing leaves into wooded areas, placing leaves on acid loving plants such as pachysandra, or creating backyard compost piles will have the effect of minimizing costs associated with collection of the leaves at the curbside and trucking the leaves to a compost facility outside the township limits. Such disposal in wooded areas or on acid loving plants is also beneficial to the homeowner's properties.

4. The township's current regulations require outdoor storage areas for solid waste and recyclables however they do not address specific size requirements. Requirements setting minimum sizes for solid waste and recycling enclosures should be developed for multi-family dwellings and nonresidential facilities.

