

# Recycling Plastic Containers: What's Happening in North Carolina

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*Many types of plastics including polyethylene terephthalate or "PET", the material of plastic bottles are now recyclable. The National Association for Plastic Container Recycling (NAPCOR) provides assistance to cities wishing to recycle PET. Now, a North Carolina company, Southeastern Container, is giving assistance to smaller communities. This article briefly describes the recycling assistance available and cites current examples.*

## Introduction

The trend toward expanding recycling activities is a positive response by communities, local governments, and businesses to the solid waste crisis in the United States. Many recycling programs include glass, aluminum, newspaper, and perhaps corrugated cardboard or office paper. Few programs planners realize that plastic is recyclable as well. Both PET (polyethylene terephthalate) and HDPE (high-density polyethylene) plastics can now be included in recycling programs. In fact, post-consumer PET bottles and HDPE milk and juice containers are in high demand by processors who recycle these materials into valuable, high-quality consumer products.

## Current Status of Plastics Recycling

In 1988, 175 million pounds or twenty percent of all PET bottles manufactured were recycled. Nearly thirty percent by volume of all soft drinks sold are packaged in plastic bottles. By weight, PET bottles contribute about two-tenths of a percent to the solid waste stream, but by volume, PET bottles actually contribute about five percent.

Recycled PET bottles can be remanufactured into fiber-fill stuffing for pillows, jackets and vests, see-through egg cartons, carpet face yarn and backing, strapping, and engineering plastics. Currently, recycled PET is not used to make new soft drink bottles, however, it is used for non-food applications such as detergent bottles. The quality of the end products made from the recycled PET is reported to be very good. In 1988, the Plastic Bottle Institute identified 130 companies as recycled plastic brokers and processors.

## The National Association for Plastic Container Recovery

The National Association for Plastic Container Recovery (NAPCOR), based in Charlotte, North Carolina, is a nonprofit trade association formed in 1987 to encourage plastic container recycling. NAPCOR's goal is to recycle fifty percent of all PET bottles by 1992. To reach this goal, NAPCOR provides promotional materials, technical assistance, and marketing assistance to communities interested in incorporating PET into recycling programs.

For programs which generate large amounts of PET bottles, NAPCOR provides more extensive assistance. These programs are usually located in states with solid waste crises, large populations, and well-established voluntary or mandatory recycling programs. Of these, NAPCOR concentrates on communities with curbside recycling programs.

Depending on the needs of the community, NAPCOR may contribute funds to purchase trucks and equipment, for promotion and publicity, and for education. NAPCOR also provides a list of market contacts and information on how to prepare the materials for market so that communities have outlets for their materials. NAPCOR itself does not handle or purchase material from recycling programs.

## Southeastern Container

Southeastern Container (SEC) is the third largest manufacturer of plastic soft drink containers in the United States. SEC makes sixteen-ounce, one-liter, two-liter, and three-liter size bottles for the Coca-Cola company at its plant in Enka, North Carolina. SEC makes ten percent of all PET bottles used to package soft drinks nationwide.

Currently, the plastics recycling industry lacks sufficient middlemen to broker and process small quantities of recycled PET for reuse. This has made it difficult for smaller communities to include PET in their recycling programs. Even recyclers who are aware that these materials are marketable often need assistance in designing an efficient collection system and in locating a market for the PET material. SEC has recently begun to provide technical assistance in these areas. In addition, the company acts as a buyer/broker for PET collected in quantities too small for normal wholesale dealers.



Workers sort plastic bottles for recycling at the central processing facility in Mecklenburg County.

SEC's philosophy as a manufacturer of PET bottles is to be responsible for the entire life cycle of the packaging material; PET bottles should be recycled and reused for new consumer products. To insure that the opportunity exists to recycle PET bottles in multi-material recycling programs, SEC is providing technical and marketing resources, and in some cases start-up funds for PET recycling programs. SEC itself recycles all in-plant scrap, including cardboard, plastic film, office paper, and other office materials.

SEC, a member of NAPCOR, assists in its efforts; however, SEC uses different criteria than does NAPCOR in providing support to programs. SEC offers greater assistance to smaller programs. Through their brokerage program, SEC hopes to assist new programs until volumes become great enough to enable a community to market its PET independently.

## Recycling Programs

NAPCOR and SEC are currently providing recycling assistance to the following communities in Georgia and North Carolina:

### *Charlotte and Mecklenburg County, North Carolina*

Coca-Cola Consolidated of Charlotte began supporting PET materials collection for this program in 1987. Since then, NAPCOR and SEC have both joined the effort.

The county's curbside recycling program started in February, 1987 as a pilot program. Participation in the program is voluntary. Recovery rates increased rapidly in the initial two years of the county program, with twenty tons of PET recovered in 1988, increasing to fifty-five tons in 1989, indicating a growth in public awareness of and participation in recycling programs.

The county markets its materials independently with promotional assistance from NAPCOR. SEC and Coca-Cola have provided densifying equipment for the plastic bottles.

### *Gwinnett County, Georgia*

The Recycling Bank of Gwinnett (RBG) was constructed in 1986 to serve as a community buy-back recycling center. The RBG is a project of both the *Gwinnett Clean and Beautiful* and *Keep America Beautiful* programs.

SEC provides densifying equipment and storage facilities for the PET material collected at the RBG. SEC pays a fair market price for the PET material which enables Gwinnett Clean and Beautiful to purchase PET material directly from the public. NAPCOR provides promotional assistance.

### *Western North Carolina*

SEC provides technical assistance and purchases materials from several small county and municipal programs in Western North Carolina.

In Brevard, a community of 6,000 people in a county with a total population of 21,000, SEC provides collection containers for PET bottles at the solid waste and recycling drop-off sites. The material is removed from the sites and stored by a local scrap dealer. An SEC employee regularly collects and pays the scrap dealer for the PET material. The scrap dealer does not separate the bottles or densify them in anyway; the price paid to the dealer reflects the condition of the bottles. For bottles which are separated by color and not mixed with other plastics, the price may be higher.

Currently this program collects approximately eight hundred pounds of PET material per week, including milk jugs and soda bottles. The bottles are then transported to Asheville for processing and eventual resale to companies which reclaim the material and reform it into new products. Similar programs operate in Hendersonville, Henderson County, Asheville, and Buncombe County.

SEC works with recyclers in distant counties to combine loads of recyclables to reduce shipping costs. Creative ways



to include PET recycling in existing or planned recycling programs are examined for smaller communities who request assistance in recycling PET material.

#### *Durham, North Carolina*

Sun Shares, a nonprofit recycling and energy conservation company, is completing the first year of a three-year contract with the city and county of Durham to provide recycling dropoffs, curbside recycling collection, and commercial recycling. Sun Shares' program includes thirteen multi-material drop-off locations at shopping centers and curbside recycling pick-up for fourteen-thousand homes. Another four thousand homes will be added by July of this year.

SEC is investigating the possibility of collecting PET soft drink containers from Sun Shares' drop-off centers and curbside program. As with other larger programs, SEC has offered to provide Sun Shares with a storage trailer, shipping, and a guaranteed market for the material.

## Conclusion

Although North Carolina programs have been the focus of this report, SEC also supplies bottlers in other southeastern states with PET bottles. NAPCOR is very active in recycling programs in Florida communities. NAPCOR and SEC hope to also establish or include plastic in existing recycling programs in Greenville/Spartanburg, Columbia, and Charleston, South Carolina this year. The company is also investigating PET recycling interest of the other states in its market area--Tennessee, Virginia, Alabama, and Mississippi.

As Recycling Manager for Southeastern Container, Sandi Maurer educates communities about the recyclability of PET containers and assists interested communities in setting up recycling programs. Prior to her work with SEC, Ms. Maurer worked in Asheville, N.C. for the Land of Sky Regional Council, a multi-county planning agency, as Solid Waste Programs Planner.

### North Carolina Passes New Law Mandating Recycling

Over this past summer, the North Carolina General Assembly approved the *Solid Waste Management Improvements Act of 1989*. The act involves local governments, state agencies, and the private sector in an effort to recycle 25% of North Carolina's solid waste by the middle of 1993. Regulations cover four main areas: scrap tires, solid waste recycling, landfill fees and closure, and used oil recycling.

The act establishes the following schedule for implementing some of its provisions:

|      |                 |  |
|------|-----------------|--|
| 1990 | January 1 ..... | Begin one percent state tax on new tire sales to help fund tire disposal.                                    |
|      |                 | All pull-tab beverage cans prohibited.   |
|      | March 1 .....   | Disposal of scrap tires in landfills prohibited.   |
|      |                 | Limit scrap tire disposal to one designated site per county.   |
|      | October 1 ..... | Disposal of waste oil in landfills prohibited.   |
|      |                 | Local governments operating solid waste management facilities must publish report on solid waste management. |
| 1991 | January 1 ..... | Large appliances and lead-acid batteries prohibited in landfills.  |
|      | July 1 .....    | Local governments must establish solid waste recycling programs.   |
|      |                 | All solid waste must be weighed before disposal in landfills.  |
| 1992 | March 1 .....   | Local governments must submit biennial solid waste plans.  |
| 1993 | January 1 ..... | Yard trash prohibited from landfills.  |
|      | July 1 .....    | Local governments must achieve twenty-five percent solid waste recycling.                                    |
| 1996 | January 1 ..... | All landfill operators and recycling coordinators must have completed a state-certified training program.    |

The act further requires proof from landfill operators that sufficient funds will be available to properly close a landfill when it is full. It provides incentives for establishment of waste-oil recycling centers. Finally, the act establishes performance criteria and certain certification and reporting requirements for local and state entities to demonstrate compliance.

This information has been extracted from a summary of the provisions of the law and its implications for local governments prepared for the North Carolina Association of County Commissioners by Ed Regan, NCACC Assistant Executive Director. NCACC has offered to provide copies of this informative twelve-page summary to interested readers at no charge. Send your request for the "Summary of Senate Bill 111" to:

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