



Recycling Works

Volume 15, Number 3

Summer 2009

A cooperative effort of the N.C. Department of Environment and Natural Resources and the N.C. Department of Commerce.



COMING SOON! (Oct. 1 to be exact)
Disposal bans on: plastic bottles, oil filters and wooden pallets

The State of Bottle Plastic Processing and End Use in the Southeast

by *Katie Burdett, Intern*

North Carolina is home to many plastics manufacturers and processors that employ nearly 39,500 people. Many of these facilities use recycled materials and their appetite for the materials is increasing. Just beyond North Carolina's borders are additional companies that also rely heavily on a supply of recycled resins. Current collection efforts fall well short of this local and regional market demand. For example, North Carolina

currently recovers less than one out of every five PET and HDPE bottles generated in the state, while hosting some of the largest processors of these materials in the country.

Recycled plastic bottles, including PET and HDPE, are made into plastic pipes, nursery containers, hangers, polyester yarn for clothing and new bottles here in North Carolina. Due to discrepancies in supply and demand of both PET and HDPE, actual end use and

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2009 Recycling Business Development Grant Winners Announced

by Matt Todd, Recycling Business Development Specialist

The N.C. Division of Pollution Prevention and Environmental Assistance awarded 29 Recycling Business Development Grants, totaling \$600,000.

For the 2009 grant round, landfill ban criteria was included to give some weight to proposals that supported developing infrastructure in response to legislation taking effect in 2009. Items included in the landfill bans are wooden pallets, rigid plastic containers and oil filters. Weight was also given to projects that addressed additional legislation that took effect in 2008 requiring ABC permit holders to recycle.

The grants ranged from \$4,000 to \$40,000, and if all the projects are successful, will create more than 86,000 tons of additional recycling capacity in North Carolina. Overall, DPPEA received 56 proposals requesting \$1.94 million in funds. Selected projects include:

Curbside Management (\$40,000) - Curbside Management (Asheville) will upgrade its collection capabilities

by adding a hook-truck and containers to expand drop-site service and increase efficiency to those already served. Contact: Barry Lawson, (828) 252-2532.



DC Foam Recycle Center (\$40,000) - DC Foam (Morrisville) will make improvements to its shearing process for post-consumer carpet that produces a pure nylon 6,6 fiber. Contact: Louis Renbaum, (410) 913-3704.

M'Powered Waste & Recycling (\$40,000) - M'Powered (Raleigh) will meet the needs of its growing customer base with the purchase of an auto-tie horizontal baler. Contact: Bruce Lantrip, (919) 868-0003.

Stoney Creek Lumber (\$40,000) - Stoney Creek (Ahoskie) will construct a building to assist in the development of a pallet recycling operation. It will receive, disassemble, repair or rebuild pallets. Contact: Melody Futrell, (252) 332-2188.

C&D Management Company LLC (\$25,000) - C&D Management Company (Cornelius) will scale up operations in order to recycle more gypsum wallboard through the purchase of a new dump trailer and truck specifically used for hauling this material. Contact: Mike Griffin, (704) 895-4506.

Hatteras Recycle LLC (\$25,000) - Hatteras Recycle (Rodanthe) will purchase an additional recycling truck and roll-carts to collect recyclables. Its service area will also expand to cover all of Hatteras Island - from Rodanthe to Hatteras Village. Contact: Todd Phillips, (252) 987-2810.

Pickett Up Recycling LLC (\$25,000) - Pickett Up Recycling (Charlotte) will purchase a collection truck to increase capacity and expand collection coverage for recyclable materials. Contact: Jill Pickett, (704)759-1400.

Reflective Recycling Inc. (\$25,000) - Reflective Recycling (Winston-Salem) will purchase a vacuum system to increase the processing capacity and efficiency of its Wilson glass processing plant. Contact: Steve Bowles, (336) 251-1025.

Natural Capital Investment Fund

NCIF makes loans and investments in the \$35,000 to \$250,000 range, primarily to expanding businesses.

Recycling businesses interested

in NCIF funding should contact

Rick Larson at rlarson@conservationfund.org or by phone at (919) 967-2223.

NCIF is an affiliate of The Conservation Fund, a national nonprofit with a unique commitment to balanced land and water conservation solutions that emphasize the integration of economic and environmental goals.



Simply Green Recycling Service (\$25,000) – Simply Green (Morganton) will expand recycling operations with the purchase of recycling bins and an enclosed box truck to be used for the collection of recyclable materials. Contact: Stephanie Cates, (828) 437-1277.

Think Green Recycle Service (\$25,000) - Think Green (Mooresville) will expand the collection capacity of its business and residential recycling operation with the purchase of an additional recycling collection truck. Contact: Trish Doak, (704) 799-1520.

French Broad Organics Recycling (\$23,000) – FBOR (Sylva) will purchase an in-vessel composting system to produce marketable top-quality organic compost through the combination feedstock of pre/post-consumer food waste and yard waste. Contact: Joe Klerlein, (828) 586-8416.

GEEP Inc. (\$20,000) – GEEP (Durham) will increase its production capacity and efficiency for processing electronic waste through the purchase of a high-capacity, fully automatic baler. Contact: Serge Mouthon, (919) 544-1443.

Green Pieces Recycling (\$20,000) – Green Pieces Recycling (Albemarle) will purchase a truck with hydraulic tilt trailer and chassis, and add an expanded metal cage for curbside recycling. Contact: Steve Megson, (704) 787-4610.

Orange Recycling Services Inc. (\$20,000) – ORS (Durham) will make facility upgrades to allow for the future installation of an upgraded baling operation at its processing facility. Contact: Perry Black, (919)688-5660 ext. 23.

Planet Recycling Inc. (\$20,000) – Planet Recycling (Matthews) will purchase a collection truck and front end loader to increase efficiencies on collection routes and at its processing facility. Contact: Brian Couture, (704) 849-6363.

Recycling Resources of N.C. (\$20,000) – Recycling Resources of N.C. (Bath) will purchase two trailers with tipping devices and 266 collection carts in order to provide recycling services to non-residential customers in Beaufort County. Contact: L.W. Roper Jr., (252) 944-1085.

Wesbell Technologies (\$20,000) – Wesbell (Durham) will upgrade an in-feed conveyor and add a sort station to a new processing line at its electronics recycling facility. Contact: Glen Hardee, (919) 484-9719 x 232.

Leisure Time Triad Solutions (\$18,000) – LTTS (Winston-Salem) will increase capacity through the purchase of a recycling collection vehicle and material handling equipment. Contact: Gene Petty, (336) 775-4000.

Synergy Recycling LLC (\$16,000) – Synergy (Madison) will purchase a skid-steer to help with material handling at its newly expanded electronics recycling processing facility. Contact: Joe Clayton, (919) 619-4856.

Carolina Waste Disposal Inc. (\$15,000) – CWD (Fayetteville) will purchase a dump trailer with roll off capability, and roll-off containers to assist in the transportation of recyclables to market. Contact: Stacy Bolton, (910) 850-5851.

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LOANS FOR RECYCLING COMPANIES

A Project of the N.C. Environmental Loan Fund

Commercial & SBA Loans from \$10,000 to \$2.5 million for Collection, Processing, Composting, Reuse, Organics, Recycling Equipment & End-Use Manufacturing.

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N.C. Environmental Loan Fund: Self-Help established the N.C. Environmental Loan Fund to provide financing to small businesses and other organizations that preserve our natural resources. Projects that are targeted for financing include recycling firms, land conservancies, environmental consulting and services, environmental equipment firms, and sustainable development products and services. Self-Help has extended more than \$6 million in financing to this growing and important segment of our economy.

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Crumpler corrugated plastic pipe made from 100 percent recycled HDPE.

processing for these materials falls below potential capacity. National recycled PET end use totaled 900 million pounds in 2007. According to conservative estimates by the National Association for PET Container Resources, end users in 11 Southeastern states have the capacity to use approximately 1.439 billion pounds of RPET per year.

Although specific information on regional end use capacity is unavailable for HDPE, data from the American Chemistry Council and the Association of Postconsumer Plastic Recyclers show that U.S. HDPE reclaimers, who provide material to the end users, had a total capacity of slightly more than one billion pounds in 2007. However, due to insufficient market supply, HDPE capacity utilization was 69 percent. PET reclaimers ran at 90 percent utilization rates the same year.

Together, eight of the major bottle plastic (both PET and HDPE) reclaimers in the Southeast have a processing capacity of almost 1 billion pounds annually. These facilities already experience an inadequate supply of raw materials to feed their current needs and more processing demand will be coming on line soon.

All processors agree that supply is tight, with more than half of material collected by recycling programs going overseas, mostly to China. The processors include companies who have made major recent investments in recycling capacity that depend on increasing material supply and the success of measures like North Carolina's plastic bottle disposal ban, effective Oct. 1, 2009.

The following are descriptions of some of the major bottle plastic reclaimers and end users located in the Southeast:

Clear Path Recycling LLC

This new facility in Fayetteville, a joint venture of Shaw Industries Group Inc. and DAK Americas LLC, will have an initial capacity of 160 million pounds annually, but will grow to 280 million pounds at full capacity. The RPET material will primarily be used by Shaw and DAK in their polyester-based products, including carpet.

Crumpler Plastic Pipe Inc.

CPP, located in Roseboro, makes corrugated plastic pipe from 100 percent recycled HDPE content. The company has the capacity to use 6,000-10,000 tons of recycled HDPE per year.

Custom Polymers

Custom Polymers, headquartered in Charlotte, operates multiple worldwide locations. Custom Polymers PET, located in Athens, Ala., has the ability to grind and wash 50 million pounds of PET annually. It is able to pelletize 25-30 million pounds annually. Blue Ridge Plastics LLC, a subsidiary of Custom Polymers located in Eden, processes post-industrial and post-consumer plastic scrap.

Engineered Recycling Company LLC

Located in Charlotte, ERC is a premier supplier of 100 percent recycled content nursery containers and pelletized polymers for use in the plastic molding industry.

Envision Plastics

Envision, located in Reidsville, is the leading re-processor of HDPE in the United States. It is currently running a net of five million pounds per month and is moving that capacity to six million pounds in the near future. Envision is adding in food-grade technology to its operation and will be the first plant in the country with the capability of making a food-grade HDPE post-consumer resin.



Engineered Recycling is a supplier of 100 percent recycled content nursery containers.

Hancor Inc.

Hancor, with a location in Mebane, uses recycled HDPE to make corrugated plastic pipe.

KW Plastics

KW Plastics, located in Troy, Ala., has a rated capacity of 250 million pounds annually. It is currently running at about 70 percent of capacity due to lack of materials and market conditions. KW Plastics produces custom, premium post-consumer resins.

Mohawk Industries

Mohawk, the largest vertically integrated PET processor in the United States, has a capacity of 225 million pounds annually. Located in Calhoun, Ga., Mohawk makes carpet fiber, and cushion and pillow fill from post-consumer PET bottles.

New Horizons Plastics Recycling

NHPR, with locations in Greenville, S.C., and Polkton, is one of the largest producers of recycled PET serving the bottling and other industries.

New United Resource Recovery Corporation LLC

In 2007, United Resource Recovery Corporation and the Coca-Cola Company announced the formation of a joint-venture called NURRC LLC, a PET bottle-to-bottle recycling plant in Spartanburg, S.C. NURRC's input capacity for PET is 130 million pounds per year.

Plastic Revolutions

Plastic Revolutions, located in Reidsville, grinds, washes and pelletizes plastic. Its current capacity is 45 million pounds per year, and it is currently able to obtain that amount. However the company's capacity will increase in the latter part of 2009 to 75 million pounds annually.

Samuel Strapping Systems

Samuel Strapping is a leading manufacturer of steel and plastic strapping and strapping equipment. Its plastic division, located in Fort Mills, S.C., uses recycled PET.

Spectrum Yarns Inc.

Spectrum Yarns Inc., a texturizer and yarn dyer, is headquartered in Kings Mountain. It offers 100 percent post-consumer recycled filament polyester yarns.

Unifi Inc.

Unifi is headquartered in Greensboro and operates manufacturing facilities in Yadkinville, Madison and Reidsville. It is a leading producer and processor of multi-filament polyester and nylon textured yarns. The company recently expanded its line of Repeve recycled products



Unifi produces multi-filament polyester and nylon textured yarns.

to include a fiber made from 100 percent post-consumer PET bottles.

Waste Management's Recycle America

WM Recycle America, located near Raleigh, has the ability to process separated or mixed plastics. Although Recycle America has enough internal material controlled by WM to provide adequate supply to its plastics sorting facility, Dwight King, area director of Recycling Operations, says "better recyclable collection programs and more participation in recycling is greatly needed."

Clearly, the demand for processed bottles remains strong, and demand for post-consumer resins will continue to grow. Widespread compliance with the plastic bottle disposal ban will ensure a flow of plastic bottles to meet market demand for the materials and will result in additional job creation through the expansion of recycling collection companies.

Dave Cornell, technical director of the Association of Postconsumer Plastic Recyclers, concurs that there is a tight market supply of bottle plastic. "We seek to expand the range of collected packaging," he said. "Sustainability is not just about material resources, but also about profitable businesses."

Steve Alexander, executive director of APR, also stresses the need to work with states to collect more material and to keep more of this material here in the United States. China will continue to have an appetite for plastics, so increasing supply will help make the pricing structure more competitive for U.S. reclaimers.

The current investment in new processing facilities shows that plastic recycling is sustainable. All stakeholders, from local recycling programs to markets, reclaimers, MRFs and haulers, need to work together to ensure an adequate supply of material. N.C. DPPEA is continuing to invest in education and promotional programs to help increase public commitment to recycling, and is seeking partnerships with communities and private companies to enhance these efforts.

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Greenville Paving & Contracting Inc. (\$15,000) – Greenville Paving (Greenville) will purchase collection containers to increase asphalt shingle recycling. Contact: James Ross, (252) 752-8842.

Reflective BevCon (\$15,000) – Reflective BevCon (Winston-Salem) will purchase additional customer location storage receptacles (carts) and logistics management system for efficient routing / tracking and fleet management of beverage container retrieval units (trucks). Contact: Bill Clark, (281) 520 0613.

Asheboro Recycling Center (\$15,000) – ARC (Asheboro) will install a glass containment area at its existing recycling facility. Contact: Kim Markham, (336) 625-6078.

Wayne Opportunity Center (\$11,000) - Wayne Opportunity Center (Goldsboro) will install a concrete pad and bunker system for glass containment at its recycling facility. Contact: John Chance, (919)735-5363.

Blue Ridge Recycling (\$10,000) – Blue Ridge Recycling (Charlotte) will purchase a horizontal baler to increase its

capacity to recycle post-consumer carpet and carpet tiles. Contact: Robert Gleaves, (704) 332-2788.

Matangira Curbside Recycling (\$10,000) – Matangira Curbside Recycling (Salisbury) will purchase a recycling truck to expand business and residential collection services. Contact: Nicole Holmes Matangira, (704) 267-3933.

The Recycling Group LLC (\$10,000) – TRG (Connelly Springs) will purchase and install a sort line at its existing recycling facility. Contact: Rosemarie Williams, (336) 510-6903.

C. Todd's Recycling LLC (\$8,000) – C. Todd's (Wilmington) will purchase material handling equipment to assist in the expansion of its recycling operations. Contact: Charles Dorman, (910) 352-6103.

Danny's Dumpster (\$4,000) - Danny's Dumpster (Leicester) will purchase a glass crusher to increase its capacity to process glass containers collected from residential and commercial customers. Contact: Danny Keaton, (828) 380-9094.



C&D Recycling Webinar Series

RBAC is developing a series of construction and demolition waste recycling webinars to begin in September 2009.

The FREE webinars are designed to be an easy way to get information and resources about C&D recycling to a wide audience – local governments, haulers, recyclers, contractors, builders, designers/architects, manufacturers, college/university staff and others.

Attendance is limited and participants will need to register for the events, <http://www.p2pays.org/rbac/CDwebinars.html>. Please be on the lookout for additional reminders and opportunities to register in e-mails that will go out later in the summer and through the end of 2009.

Each webinar is scheduled from 2:00 – 3:30 p.m.

Defining the C&D Waste Stream – Sept. 17

Waste characterization (breakdown by sector), market assessment (supply/demand), rules and regulations.

Opportunities for Recovery – Oct. 15

Collection methods/strategies, targeted materials, mixed waste processing.

Growing the C&D Recycling Infrastructure – Nov. 19

Public/private partnerships, targeted grant funding, cutting to the chase - operational case studies (cost/benefit).

The Role of C&D Recycling in the New “Green Economy” – Dec. 17

The role of material recovery in the LEED rating system, recycling jobs are green jobs, end markets/products from materials in the C&D waste stream.

What's New at the CRA?

by Gary A. Bilbro, CRA Executive Director

This has been a very eventful year for the Carolina Recycling Association. In March 2009, I accepted the position as the CRA's new executive director. I embrace the challenges of this position and consider it a privilege to represent the association.

Some new member benefits have been introduced over the past few months. They include:

- CRA Connections is a free event that provides members and guests with the opportunity to meet and greet others interested in recycling. You never know, you might meet someone that can solve a problem or two for you. Keep your eye on the CRA Web site for future dates and locations for our CRA Connections.
- Webinar Wednesday is another new benefit that will be free to members in good standing. These webinars will be timely and full of valuable information to help you grow your recycling awareness. We will have sessions that will cover topics from social marketing tools such as Facebook and Twitter to C&D Recycling.

Mark your calendars today for the 2010 CRA Conference & Trade Show to be held at the beautiful Grove Park Inn in Asheville on March 15 - 19, 2010.

In addition to the new member benefits, we now have more offices to better serve our members. We recently moved our main office to Winston-Salem. At the same time, we opened an office in Greenville, S.C., and placed one staff member in the Raleigh area. With the CRA spreading out over North and South Carolina, we can

Recycling Works is published by the N.C. Recycling Business Assistance Center, a program of the Division of Pollution Prevention and Environmental Assistance of the N.C. Department of Environment and Natural Resources. For more information call (919) 715-6500 or (800) 763-0136, or write to DPPEA, 1639 Mail Service Center, Raleigh, NC 27699-1639.

Beverly Eaves Perdue, Governor, North Carolina
Dee Freeman, Secretary, Department of Environment and Natural Resources



Division of Pollution Prevention and Environmental Assistance

Gary Hunt, Director
Scott Mouw, Chief, Community & Business Assistance Section
Matt Ewadinger, RBAC Manager
Matt Todd, RBAC Market Development Specialist
Wendy Worley, RBAC Market Development Specialist
Sherry Yarkosky, RBAC Market Development Specialist
Ben Rogers, RBAC Industrial Development Specialist
Chris Frazier, DPPEA Information & Communications Specialist



now better serve our members and be closer to them when they need our help. Learn more about our office expansion and other exciting CRA news on our Web site at <http://www.cra-recycle.org>.

While economic times may be tough, our members realize the value of their CRA membership. The CRA has created a voice to be respected and heard in Raleigh and Columbia. We have supported valuable legislation in both states. These efforts have provided the recycling industry with many new opportunities that otherwise may not have been available. The CRA will continue to grow and build an even stronger voice for the recycling industry in the Carolinas.

If you are not currently a member, but would like to join, please write the CRA at P.O. Box 24518, Winston-Salem, NC 27114, or e-mail us at cra@cra-recycle.org. To contact me directly, call (919) 395-2406 or e-mail me at gbilbro@cra-recycle.org.

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Otto Transforms Cart Production and Reuse

by Matt Ewadinger, RBAC Manager

In 2005, Otto Container Management, with headquarters in Charlotte, began manufacturing its Transformer line of 95-gallon roll-out carts that contained up to 50 percent post-consumer HDPE plastic. Today, Transformer's post-consumer content is up to a whopping 98 percent.

The Transformer line represents a true closed-loop recycling system. "All of the post-consumer HDPE used to make these carts comes from carts that OCM has recovered in the field," said Shawn Newton, OCM's operations manager.

All carts that are made exclusively from HDPE can be remanufactured into the Transformer line of products. Old carts made from other plastic resins or a combination of resins are processed and sold for other recycling applications.

During the 14 month period beginning in April 2008 through the end of May 2009, OCM recycled close to 9 million pounds of HDPE and 1.25 million pounds of the recovered HDPE was used in manufacturing Transformer carts.



For every five 95-gallon carts reclaimed, OCM can build a complete two cubic yard container, like this SteeLite container.



Old HDPE carts are recycled into the new Transformer line of carts and bins.

In 2008, OCM implemented a pilot project with Waste Management Inc. to supply it with several hundred SteeLite 2 cubic yard containers manufactured with up to 30 percent recycled content. For every five 95-gallon carts reclaimed, OCM can build a complete two cubic yard container.

In addition to closing the recycling loop on old HDPE carts, OCM supplies cart maintenance services intended to prolong cart life. Not only will OCM clean old carts, it also uses state-of-the-art portable injection welding machines to make repairs ranging from body cracks to replacing or reshaping rodent damaged areas.

For more information about Transformers and Otto Container Management contact Shawn Newton at (704) 583-5258 or snewton@otto-usa.com, or visit its Web site at <http://www.ottocontainermanagement.com>.

E-waste Recycling Event a Success

by Matt Todd, Market Development Specialist

Creative Recycling Systems Inc. partnered with, MRM, Sharp, Toshiba, Panasonic and FOX 50 (WRAZ-TV) to sponsor an electronics recycling collection event at multiple locations in the Triangle region of North Carolina on June 27, 2009.



The event was held in the parking lot of three local Best Buy stores in Durham, Cary and Raleigh. The one-day event was free to the public and all three sites combined to collect 119,830 lbs. of electronics - 48,725 lbs. of the material (1,275 units) collected was TV and computer monitors.

Additional event volunteers included: Duke Recycles, Sustainability @ Duke, UNC Office of Waste Reduction & Recycling, N.C. State Recycles, Durham County, city of Durham, city of Raleigh and RE3.org.



The Recycling Business Assistance Center is a program of the N.C. Division of Pollution Prevention and Environmental Assistance.

Call (919) 715-6500 or (800) 763-0136 for free technical assistance and information about preventing, reducing and recycling waste.



North Carolina market prices for recyclables

Prices current as of July 31, 2009

Item	Western Region	Central Region	Eastern Region
METALS			
Aluminum cans, lb. loose	\$0.59	\$0.5925	\$0.53
Steel cans, gross ton baled	\$80	\$83.03	\$75.00
PLASTICS			
PETE, lb. baled	\$0.11	\$0.10	\$0.11
HDPE, lb. baled Natural	\$0.235	\$0.225	\$0.21
Colored	\$0.135	\$0.105	\$0.11
PAPER			
Newsprint, ton baled	\$65	\$50	\$57.55
Corrugated, ton baled	\$85	\$75	\$85
Office, ton baled	\$135 (SOP)	\$120 (SOP)	\$170 (white ledger)
Magazines, ton baled	*	\$55	**
Mixed, ton baled	\$55	\$45	\$63
GLASS			
Eastern Region sells glass F.O.B. origin			
Brown, ton crushed delivered	\$18	\$19	\$17
Clear, ton crushed delivered	\$25	\$29	\$21
Green, ton crushed delivered	\$3	\$2	(\$7.50)

* Markets with mixed paper.

**Markets with newsprint.

Note: Prices listed above are compiled by RBAC and are for reference only. These prices are not firm quotes. RBAC obtained pricing information from processors for each category and developed a pricing range.

Visit RBAC online at <http://www.p2pays.org/rbac>