



# Recycling Works

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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**

See story p. 5

## Paving the Way for Shingle Recycling in North Carolina

by Sherry Yarkosky, Recycling Business Development Specialist

Beginning in December 2008, Pitt County Solid Waste and Recycling Department partnered with Greenville Paving & Contracting Inc. to become the first in the state to recycle post-consumer asphalt roofing shingles. Pitt County collects post-consumer tear-off asphalt shingles at its transfer station and Greenville Paving uses the shingles

as feedstock for hot mix asphalt. It's a great example of a public-private partnership that creates economic savings for both.

Asphalt shingle recycling in North Carolina is long overdue, and now it's here thanks to the determination of Pitt County and Greenville Paving working with the state's regulatory agencies. Now that Pitt County and Greenville Paving created a model for others and have experience to share, the

(See *SHINGLES*, page 3)



**Pitt County collects asphalt shingles in 20 cubic yard containers at its transfer station.**

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# Griffin Brothers Acquire Union Gypsum's Recycling Operations

by Matt Ewadinger, RBAC Manager

In February 2009, Griffin Brothers Companies purchased Union Gypsum Inc. now known as Carolina Gypsum Reclamation.

"This strategic acquisition will improve our ability to serve our customers' recycling needs, accelerate Griffin Brothers' role in the recycling industry and enhance the quality of our current yard waste programs in Harrisburg and Apex," said Mike Griffin, partner of Griffin Brothers Companies.

Currently, Carolina Gypsum Reclamation recycles 100 percent of its product at its Marshville facility through the incorporation of a patented gypsum drywall recycling processes. The recyclable gypsum is transferred or hauled from Griffin Brothers' C&D landfill/reclamation facilities in Charlotte and Apex.

Carolina Gypsum Reclamation is in the process of cultivating relationships with innovative local governments that want to aggressively expand the recovery of gypsum drywall from their

waste stream. Mecklenburg and Haywood counties, for instance, have implemented recovery operations and are currently sending trailer loads of segregated gypsum drywall to Marshville.

For more information regarding establishment of a relationship with Carolina Gypsum Reclamation, please contact Steve Davis at (704) 624-2077 or e-mail him at [jsdavis@griffinbrothers.com](mailto:jsdavis@griffinbrothers.com).



**Pictured at the Carolina Gypsum Reclamation facility in Marshville are: (left to right) RBAC Manager Matt Ewadinger, Steve and Kathy Davis, and Mike Griffin.**

## 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](mailto:rlarson@conservationfund.org) or by phone at (919) 967-2223.**

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



## "Dirt Shorts" Made From Recycled Bottles

Hickory's Dirtball Fashion has created a new shorts line - "The Dirt Short" - made out of 16-ounce PET bottles, which have been re-processed to create a high-quality polyester blend fabric.

Dirtball Fashion uses recycled or organic domestically produced materials in its products, and all products are designed and produced in the United States. Not only does the recycled content add to the resource conservation focus of the company, but the U.S.-based manufacturing arm also adds to the local economy and shortens shipping distances, thereby reducing Dirtball Fashion's carbon footprint.

And if that's not green enough for you, the shorts are also recyclable. Once a pair is worn out it can be returned to Dirtball Fashion (for 20 percent off future online purchase) to be re-spun back into polyester fiber. Visit [www.dirtballfashion.com](http://www.dirtballfashion.com) for more information.

## SHINGLES, from page 1

process should be easier for others in the state to start asphalt shingle recycling programs of their own.

At its transfer station, Pitt County directs clean loads of asphalt shingles to 20-cubic yard collection containers. Prior to the program start-up, roofing contractors were notified about the new recycling program and asked to remove wood, insulation, flashing and other trash from the loads before dumping into the collection containers. Contractors have been supportive of the program.

“It really hasn’t been a difficult program for them,” said Paula Clark, Pitt County recycling coordinator. “It requires very little effort and they are part of something benefitting the whole community.”

One unintended benefit of the shingle recycling program has been an increase in wood waste recovery as well. Pitt County estimates that it will save more than \$100,000 per year on landfill disposal fees and divert more than 4,100 tons of shingles from the landfill.

After a shingle collection container is full, Greenville Paving transports the material to its facility where it is sampled, ground and incorporated into the hot mix asphalt. State specifications allow five percent use of recycled asphalt shingles in hot mix asphalt. It takes 2,500 tons of processed shingles to produce 50,000 tons of asphalt mix.

“Recycling shingles is a win-win program for everyone,” states James Ross, quality control manager, Greenville Paving & Contracting Inc. “It enables the county to reduce disposal costs, which saves taxpayer money. It allows us to make a cheaper, high-quality mix, which is a cost-savings to contractors who buy it and the taxpayers who pay for new roads.”

The partnership with Pitt County has been very successful. Greenville Paving wants to build on that success by creating more partnerships with other local governments within a 100-mile radius. For more information contact: Paula Clark, Pitt County recycling coordinator at (252) 902-3352; or James Ross, quality control manager, Greenville Paving & Contracting Inc. at (252) 902-5706.



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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.

## Curbside Stimulus Plan

by Matt Ewadinger, RBAC Manager

Charlotte-based Coca-Cola Consolidated, the city of Charlotte, Mecklenburg County, six area towns and Harris Teeter recently announced a new partnership designed to increase recycling throughout the area. The program titled *Recycle and Win* kicked off in February and will run for a year.

Coca-Cola is sending an educational mailer to all 271,000 single-family households in Mecklenburg County that features the Do's and Don'ts of recycling, along with an opportunity to win \$50 Harris Teeter gift cards simply for doing the right thing ~ recycling and recycling the right way. The educational mailer contains a sticker, which residents are instructed to place on their red "Curb It" recycling bins in order to win. If they are spotted recycling ~ and recycling the right way ~ they could be rewarded.

The Coca-Cola prize patrol started visiting Mecklenburg County communities in early February and plans to award 10 \$50 Harris Teeter gift cards a week for a total of 520 prizes throughout the year.

"Rewards like these are instrumental in building positive recycling habits," said Rod Antolock, executive vice president of Operations and Merchandising for Harris Teeter. "I know our fellow citizens will take advantage of this campaign. I speak on behalf of the entire Harris Teeter family when I say we are very proud to be a part of Recycle and Win."

"Coca-Cola is proud to sponsor this worthy initiative," said Lauren Steele, vice president Corporate Affairs, Coca-Cola Bottling Company. "We want to make recycling a rewarding experience, and what better way to encourage people to recycle than by giving them an opportunity to win! All of this is part of our Global Live Positively campaign."

Coca-Cola Bottling Co. Consolidated is the second-largest Coca-Cola bottler in the United States. With corporate offices in Charlotte, the company does business in 11 states, primarily in the southeast. For more information about the Recycle and Win program, call Coca-Cola toll free at (866) 393-2145 or visit its Web site at [www.cokecharlotte.com](http://www.cokecharlotte.com).



Participating in the ceremonial bottle drop to help kick-off the *Recycle and Win* campaign are (from left to right): Lauren Steele, vice president corporate affairs, Coca-Cola Bottling Company; Rod Antolock, executive vice president of Operations and Merchandising, Harris Teeter; Mayor Pat McCrory, city of Charlotte; Annette Privette-Young, public relations director, Town of Pineville; and Andy Dulin, councilman, city of Charlotte.

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# New Disposal Bans in Sight

by **Scott Mouw, Section Chief, CBAS**

The clock is ticking on a new set of statewide disposal bans that take effect in only a few months. On Oct. 1, 2009, wooden pallets, plastic bottles and oil filters are targeted for diversion from landfills by [North Carolina statutes](#).

When the bill passed in 2005, the General Assembly acknowledged that these materials constitute commodities, not waste. In doing so, lawmakers recognized that the recovery of these materials can contribute to the growth of the state's economy.

## Plastic Bottles

For plastic bottles, the Carolinas have become "ground zero" for PET (#1) recycling in the United States. A joint venture between DAK Inc. and Shaw Carpets will create 100 new jobs and recycle more than five billion PET bottles per year into polyester fiber for carpet manufacture.

The facility, known as Clear Path Recycling, adds a massive 280 million pounds of PET capacity to the 130 million pounds per year needed by a plant operated by NUURC and Coca Cola in Spartanburg, S.C. The combined capacity of these two plants alone is more than double all of the PET generated in North Carolina. That's not even taking into account the additional demand from other manufacturers in the southeast and China's insatiable demand for the same material.

North Carolina hosts a number of leading HDPE recyclers and mixed bottle processing facilities. Envision (the second largest HDPE recycler in the United States), Plastics Revolutions and Ensley Corporation all operate plants in Rockingham County. Also, Raleigh is home to

one of the largest mixed bottle processors in the country, WM/Recycle America. None of North Carolina's total supply of plastic bottles even needs to leave the state to be processed into new industrial feedstocks, making the ban on plastic bottles a complete "no-brainer."

## Wooden Pallets

Wooden pallets are also the proverbial "no-brainer" when it comes to the pending disposal ban. The versatility of approaches to pallet diversion, from source reduction in shipping systems all the way to processing for mulch and boiler fuel, makes this material an ideal recoverable. The pallet recycling industry is possibly the largest sector of North Carolina's recycling economy.

## Oil Filters

Because of the amount of residual oil they hold, it is a wonder that oil filters were not banned from disposal long ago (oil has been banned since 1990). Now in 2009, there are basically no barriers to the recycling of filters, highly desired for both the extracted oil and for the steel used by manufacturers of rebar and other steel products. Oil filter recycling is a service provided by the 20+ oil recycling companies in North Carolina covering the entire state, making filters an obvious target for a disposal ban.

Many of North Carolina's community recycling programs, recycling companies and waste generators are gearing up for making the 2009 disposal bans a success. DPPEA will begin a campaign of public education and outreach on the disposal bans in May – look for new Web-based information soon or feel free to call DPPEA at (919) 715-6500 if you have questions or need assistance.

# C&D Recycling Market Fair and Seminar

by **Wendy Worley, Recycling Business Development Specialist**

UNC-Chapel Hill and Orange County are partnering to host a seminar and recycling market expo for construction and demolition waste management in Orange County. The event will take place on Tuesday, June 9, 2009, from 12 to 4 p.m. in Chapel Hill.

The planned expo with area recycling markets for C&D debris will provide an opportunity for builders, contractors and architects to learn about recycling markets and

make connections for diversion efforts in their own projects. Participants will also learn about C&D waste reduction logistics, including source separation and creative ideas for tight spaces.

If you have any questions or would like to exhibit as a recycling vendor, please contact Sarah Myers at [Sarah.Myers@facilities.unc.edu](mailto:Sarah.Myers@facilities.unc.edu) or (919) 962-4699, or Grant Gale at [ggale@co.orange.nc.us](mailto:ggale@co.orange.nc.us) or (919) 968-2788.

## Local Company Helps EPA Set Standards

More than three years ago, the EPA recognized the fact that there was no comprehensive set of auditable standards that covered all aspects of responsible electronics recycling and materials management. As an emerging and diverse industry, customers were left with no independent way to identify which recyclers they could trust to handle material properly and adhere to high industry standards. EPA's Responsible Recycling Practices Program sought to remedy that problem.

EPA asked a small group of industry representatives to develop a set of standards and practices that would be used to define responsible recycling. Charlotte's CompuTel was invited into that select panel, and worked alongside various industry groups, EPA, OSHA, the Institute of Scrap Recycling Industries and the International Association of Electronics Recyclers.



"These voluntary guidelines will help assure Americans that their used electronics will be recycled safely and responsibly," said Susan Parker Bodine, assistant administrator for EPA's Office of Solid Waste and Emergency Response.

The R2 Practices generated by panel members detail 13 separate principles that direct recyclers to develop a comprehensive management system that covers everything from worker safety to proper materials handling. Recyclers are also required to do thorough due diligence on export regulations and downstream tracking. In short, a Responsible Recycler must know exactly how and where their material is processed.

For more information on the R2 Practices, please call Brett Rhinehardt at CompuTel, (704) 376-1116 or e-mail him at [brett@computelig.com](mailto:brett@computelig.com).

## New Plant Supports Jackson County's Economy

by Wendy Worley, Recycling Business Development Specialist

Stonewall Packaging LLC, a joint venture of Jackson Paper Manufacturing Co. and other partners, announced that it will invest more than \$17 million locally in a new Sylva facility to produce recycled cardboard packaging. According to a company spokesperson, the expansion is expected to create 61 jobs over the next three years.

"We are so pleased to be establishing this new operation in Sylva and bringing additional jobs to Jackson County," said Timothy L. Campbell, president and CEO of Stonewall Packaging and Jackson Paper Manufacturing Co. "The venture, which allows us to expand and capitalize on the great work we're already doing at Jackson Paper, is a reflection of our continued commitment to the region."

Jackson Paper, which currently employs 119, produces 100-percent recycled paper used by independent box manufacturers. Company officials said they chose to build in Sylva because of the infrastructure already in place and a skilled work force. The company will begin hiring for the new positions in late summer. Unemployment stood at 10.5 percent in Jackson County in February, nearly double the rate from only a year ago.



"This expansion will provide much-needed jobs as well as boost our local economy by providing opportunities for construction companies, retailers of building goods and supplies and others," said Brian McMahan, chairman of the Jackson County Board of Commissioners.

Stonewall worked closely with the town of Sylva, Jackson County government, Southwestern Community College, the N.C. Rural Center, the N.C. Department of Transportation, the N.C. Department of Commerce and Duke Energy on the new venture.

The project is made possible in part by a \$200,000 grant from the One North Carolina Fund, which provides financial assistance, through local governments, to attract business projects that will stimulate economic activity and create new jobs in the state.

# RBAC Focuses on C&D Market Development

By Matt Todd, Recycling Business Development Specialist

Building construction comes in waves. Although disposal numbers are down due to the economic downturn, C&D waste remains a large part of the disposed waste stream in North Carolina. Thirty percent of the waste stream in North Carolina is generated by C&D activities.

Now is the perfect time to make improvements to the construction and demolition recycling infrastructure in North Carolina.

Contractors being knowledgeable about the network of diversion options can mean more material will find its way back into economic use instead of being trucked to the C&D landfill. This type of shift will add to the momentum in the recycling industry of creating jobs and conserving natural resources.

The recycling infrastructure for C&D waste in North Carolina is varied. A handful of mixed-waste recyclers, single-material

processors, deconstruction operations and architectural salvage businesses exist in locations across the state. The N.C. Recycling Markets Directory provides a dependable list of companies that collect or process material from the C&D waste stream.

RBAC is addressing gaps in infrastructure by creating partnerships with local governments, by providing assistance to established private-sector companies for the expansion of C&D recycling services and by creating information resources for both the public and private sector.

As a way to build partnerships with county solid waste officials, RBAC has initiated the "early adopter's roundtable" C&D conference call. This quarterly conference call keeps counties with early-stage or established C&D recycling programs connected

(See [C&D](#), page 8)



**What:** SJF Summit on the New Green Economy  
**When:** June 2-3, 2009  
**Where:** Durham Marriott Convention Center  
**Web Site:** <http://www.sjfund.com/?id=335>

## New Green Economy Summit

by Wendy Worley, Recycling Business Development Specialist

RBAC is working with SJF Ventures to expand its annual Cleantech CEO Panel to take into account the breadth of changes happening in the economic climate, and SJF's growing base of constituents, including entrepreneurs, investors, government and community leaders.

The event, being held at SJF's southern headquarters in Durham on June 2 and 3, will feature recycling companies in one of two main CEO panels.

The event will also feature keynotes from Nicholas Parker of Cleantech Group LLC, Jeff Wolfe of groSolar, Majora Carter of Majora Carter Group and Martin Eakes of Self-Help Credit Union. In addition, concurrent sessions on green job elements and a capital markets plenary will be featured. The event is designed to provide inspiration and useful information, tools and networking for all.

If you have additional questions, e-mail [sjsummit@sjfund.com](mailto:sjsummit@sjfund.com) or call (919) 530-1177 ext. 405.

*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.



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