NORTH CAROLINA
RECYCLING BUSINESS ASSISTANCE CENTER

A cooperative effort of the North Carolina Department of Environment and Natural Resources and the North Carolina Department of Commerce.

Recycling Works

Volume 5, Number 3 Fall 1999

R24 Lumber Company receives Self Help and Sustainable Jobs Fund financing

By Matt Ewadinger, RBAC Manager

Bill Juhas is a resourceful entrepreneur who started Key-Block Corp. in 1996 to manufacture and distribute pre-engineered building components. Juhas soon recognized that the value of the wood fiber as cement filler for his pre-engineered building components was significantly less than the value of recovered lumber from the same material. In 1998, the Charlotte-based company evolved into R24 [recycled 2" x 4" lumber boards] Lumber Company.

R24 recently received financing from Self-Help as part of the dedicated recycling component of its Environmental Loan Fund (see related story on page 3).

"This funding will allow us to mechanize our operations and significantly increase the amount of materials we are able to process into dimensional lumber," said Juhas. R24 received $150,000 each from Self-Help and the Sustainable Jobs Fund (SJF) (see article on SJF in the Summer 1999 issue of *Recycling Works* and Loan Fund article on page 3 of this issue).

The company recovers random lengths of lumber and remanufactures them through a process called finger jointing into eight- and nine-foot wall studs. The finger jointing process used by R24 is not new. It has

*(See **R24 Lumber**, Page 10)*

Equipment purchased through financing from Self-Help and the Sustainable Jobs Fund will further mechanize the R24 operation pictured above.

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RBAC adds two new faces

The Recycling Business Assistance Center (RBAC) recently hired two new market development specialists.

Hale

Rhodes

Jason Hale began working in April 1999. His work focuses on improving North Carolina's recycling infrastructure through recycling and waste reduction initiatives targeted toward the industrial sector. He previously worked as an education manager with two North Carolina recycling organizations and as project coordinator of a pilot residential construction waste recycling venture. Hale has a Bachelor of Commerce degree with concentrations in marketing and management from the University of Virginia's McIntyre School of Commerce.

Tom Rhodes also began in April 1999, working mainly with North Carolina business and industry on feedstock conversion projects as well as general recycling economic development activities. He most recently worked with Iredell County to develop its recycling program. Rhodes also worked 10 years as recycling coordinator with Burke County, N.C. Prior to entering the field of recycling and waste management, Rhodes worked 16 years as an art director and illustrator in the print, public relations, and design industries. He is a certified commercial illustrator of the Art Instruction Schools of Minneapolis, Minn., and a certified technical illustrator/draftsperson of Western Piedmont College, Morganton, N.C.

Hale and Rhodes filled two vacant positions left by Kathleen Gray and Diane Minor. Gray is research director of the Environmental Resource Program at UNC-Chapel Hill. Minor recently moved to Amsterdam, The Netherlands.

Don't let your *Recycling Works* subscription expire

Postcards were recently mailed to solicit continued subscription to *Recycling Works*. Some postcards were returned, and some were not. **This is your last chance.** If you would like to continue your subscription, please let us know by contacting Jason Hale at jason.hale@ncmail.net or (919) 715-6542 or (800) 763-0136.

In the interest of waste reduction and energy conservation, RBAC is now offering electronic delivery of *Recycling Works* in pdf format. To take advantage of this opportunity, e-mail a statement of interest and your contact information, including the name of your company to Jason Hale. Also, if your mailing or e-mail address has changed within the past six months, please provide your updated contact information.

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

James B. Hunt, Jr., Governor, North Carolina

Bill Holman, 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
Jason Hale, RBAC Market Development Specialist
John Blaisdell, RBAC Market Development Specialist
John Nelms, RBAC Industrial Development Specialist
Sharon Gladwell, DPPEA Information & Communications Specialist
Tom Rhodes, RBAC Market Development Specialist

Self-Help and State collaborate on loan fund

Left to Right: Matt Ewadinger and Scott Mouw of the N.C. Department of Environment and Natural Resources, Fred Broadwell and Bob Shaw of Self-Help.

Bill Holman, secretary of the North Carolina Department of Environment and Natural Resources (DENR), recently announced that Self-Help, North Carolina's community development lender, and its Recycling Business Assistance Center (RBAC) have entered into a contract agreement to establish the dedicated Recycling Business Loan Component of an Environmental Business Loan Fund.

The project, to be administered by Self-Help, is designed to serve the recycling industry with loans that take higher risk than conventional bank loans. "This project further solidifies a common bond between North Carolina's environmental and economic development communities because it will bolster job creation and capital formation, as well as markets for recyclable materials," Holman said.

Funding sources include $139,671 from the U.S. Environmental Protection Agency (EPA) through its Jobs Through Recycling project, $250,000 from the DENR-administered Solid Waste Management Trust Fund, and $525,525 from Self-Help, a nationally recognized community development bank that has loaned more than $3.8 million to recycling companies during the past seven years.

"The loan fund will nurture fledgling businesses until they become bankable and graduate to full-service private sector financing," said Robert Schall, president of Self-Help Ventures Fund. "The purpose of the loan fund is to finance businesses that cannot receive conventional financing, whether from a bank, a venture capital firm, or other standard source.

"In North Carolina, we are proud of our economic development efforts in the recycling arena, but we can do more by providing and creating markets that will eliminate major barriers to recycling," said state Commerce Secretary Rick Carlisle. "The establishment of the recycling business loan fund project will have a positive impact on those efforts."

A Project of the N.C. Environmental Loan Fund

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Need a loan with reasonable interest rates and flexible underwriting standards? We may have the answer! Self-Help has the expertise and programs to help North Carolina recycling businesses. Call today to learn how a Self-Help loan can strengthen your enterprise.

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 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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Secrets to successful financing for recyclers

By Fred Broadwell

Would you rather wade through flood waters from Floyd than deal with a banker or venture capitalist? If yes, you are not alone. No matter how savvy you are, negotiating the waters of the financing world can be daunting — not to mention the fact that you are involved with recycling! Although much advice is available for getting the financing you need, here are four key points to reduce your pain. Do these things and you may have the financier cheering.

1. Know Before You Go. It cannot emphasized enough how important it is to take stock of what stage your company is at and to approach funding sources that are a good match for your stage of development. Do not waste valuable time barking up the wrong tree. If you have a startup, think first about family and friends, angel investors, a supportive institutional financier (like Self-Help), or even credit cards. If you have two or three years under your belt and have some collateral available, more traditional sources begin to open up — and they will have cheaper money. If your early-stage company anticipates a large and profitable growth spurt and can afford to provide returns to an investor of 30 to 40 percent, then venture capital is an option. Find an experienced attorney and check out the recycling investment forums. If you really must purchase a building (rather than lease) or have large equipment needs, the Small Business Assistance (SBA) 504 program may be for you — ask your banker or Self-Help.

2. Be Prepared. Before you call, get your ducks in a row. Every business should be able to fax its financial statements (current P&L and balance sheet) that day. There is nothing worse for a financier than to get the sense that a company's financial reporting is in disarray. Know your personal credit ahead of time. If there are any blemishes, have explanations and documentation prepared ahead of time. Start building a nest egg to cover owner's equity today. At the least, you will need cash to pay for closing costs. Know your personal and business assets — do you have anything to serve as collateral? Equipment has about a 50-percent collateral value, real estate 70 to 80 percent.

3. Prove You are a Player. Is your resume up-to-date? Do you have a current list of references, people who are ready to speak well of you? Are you active in recycling associations? Honestly assess gaps in management skill, and, if need be, bring in additional help. As most bankers will tell you, management capability is the single most important predictor of business success. Document yours.

4. Increase the Info, Reduce the Hype. Mythology notwithstanding, bankers do not weigh business plans on a bathroom scale to judge their worth. A good business plan should focus *briefly* on the basics – and provide details, not generalities like "we need only one percent of a billion dollar industry segment." Recyclers should be especially well-informed about raw material supply, market growth, government regulations and operations issues. Do not talk endlessly about how great the product is — there is much else to discuss and financiers have limited attention spans. Use your 15 minutes of fame to your best advantage.

Fred Broadwell is an Environmental (including recycling businesses) Loan Fund specialist with Self-Help Ventures Fund. He can be reached at (919) 956-4400.

Seven companies make presentations at 1999 Southeast Investment Forum

By John Nelms, Industrial Develoment Specialist

The 4th Annual Southeast Recycling Investment Forum was on August 23 at Kiawah, Island, S.C., with seven companies making presentations. A brief synopsis of each presenter follows.

Itronics Inc. of Reno, Nev., has developed a proprietary technology process to recycle photographic waste liquids and convert the residual into a liquid fertilizer. The company's business encompasses three distinct operations: photochemical supply and services, silver recovery and refinement, and liquid fertilizer sales and distribution.

Kafus Spaceboard Inc. of Columbia, S.C., is the exclusive sublicense for the Spaceboard Technology. This process produces a 3-D fiberboard. The end products offer a sustainable alternative to wooden packaging products such as pallets and skids, while offering comparable performance. Kafus is currently involved in a joint venture with SONOCO and hopes to expand in the United States and in Europe. Its parent company is Kafus Environmental Industries of Dedham, Mass.

United Resource Recovery Corp. of Spartanburg, S.C., is a provider of recovery process manufacturing, services, and technology for the silver bearing industry and polyester (PET) recovery from film and bottles. It plans to expand the silver recovery business to fill the market void of a major competitor that has left the business. United Resource Recovery has a patented one-step process for cleaning film and bottles.

Gyp-Pack of Tennessee Inc. recycles scrap drywall into two base products: gypsum powder and gypsum paper. Gypsum powder is used for agricultural products, absorbents, and self-leveling floor (pourable liquid floor product). Gypsum paper is made into cellulose insulation. Gyp-Pack uses patented and patent pending state of the art equipment.

Redwood Rubber LLC, of Alameda, Calif., has developed a method to recycle scrap rubber using ultrasonic devulcanization. The company is presently moving from the scale-up process to the commercial scale. Redwood Rubber has developed a variety of product lines.

R24 Lumber Company, of Charlotte, N.C., the company highlighted in the cover story of this issue, presented its plans to open a facility in North Central Florida.

Matrix Fibers Corporation, of Charlotte, N.C., manufactures chopped strands of fiberglass for plastic extrusion compounds used in products such as fiberglass filled nylon, phenolic thermoset plastic, and polypropylene long and short glass. The product is made from fiberglass diverted from landfills.

For more information about the Forum, contact Ted Campbell at (803) 737-0418 or Dottie Landry at (803) 806-3455.

N.C. recycling company heads toward slam dunk of a future

Matrix Fibers Inc. owners Thomas and Jimmie Surratt are an intrepid husband-wife entrepreneurial team who founded the Charlotte-based fiberglass recycling company in 1996. One year later, the company received a $75,000 equipment loan from Self-Help. Today the Surratts recycle 360 tons of waste fiberglass per year through contracts with Fortune 500 corporations. The Surratts have big plans for the future. They want to use new debt and equity investments to develop contracts with makers of composite boards. The boards are perfect for products like snowboards and super-strong basketball backboards. Sounds like a slam-dunk.

Hurricanes leave destruction for deconstruction

By John Blaisdell, Market Development Specialist

Top: The pilot project house prior to deconstruction.

Middle: The pilot project house during deconstruction.

Bottom: Pete Hendricks loads a trailer with salvaged building materials and appliances.

The City of Kinston, N.C., is making the absolute best of a bad situation. In 1996 Hurricane Fran left more than 200 houses requiring removal from within the flood plains of the Neuse River. With the assistance of Pete and Robin Hendricks' nationally-recognized deconstruction business, Kinston is gearing up to deconstruct all 200 houses and establish a retail business to sell reusable salvaged building materials. In addition to retailing the materials, the City plans to reuse some of the materials in community revitalization projects.

The Federal Emergency Management Agency (FEMA) recently began a buy-back program in North Carolina that allows local governments to receive compensation for purchasing and removing houses that are continually affected by flooding during natural disasters. In North Carolina, more than 2,000 houses will be removed through this program.

With more than 100 tons of waste being generated from the demolition of an average residential unit, the quantity of material requiring disposal or recycling may exceed 200,000 tons. This is equal to 2.5 percent of the total amount of waste disposed in the state during fiscal year 1997-98 (approximately 8,000,000 tons).*

With the existing inventory of homes requiring either disposal or recycling and the anticipation of future disasters creating enormous amounts of waste, North Carolina officials recognized that something needed to be done to address the recycling of disaster debris. As a result, North Carolina's Division of Emergency Management (DEM) (of the Department of Crime Control and Safety) and Division of Pollution Prevention and Environmental Assistance (DPPEA) (of the Department of Environment and Natural Resources), teamed up to develop an all-encompassing plan for the management of disaster debris, focusing on recycling and reuse.

After a meeting between representatives from DEM, DPPEA, Pete and Robin Hendricks, and Kinston city officials, the City decided to move forward with a pilot program to deconstruct one of the houses scheduled for removal. For one week in May, Pete and Robin Hendricks trained a

*(See **Deconstruction**, next page)*

Deconstruction, from page 6

number of the city's officials and other volunteers on the techniques associated with deconstruction.

The city was pleased with the results of the pilot project and decided to continue to deconstruct the remaining houses. Also, the city plans to lease a former tobacco warehouse to set up a retail facility for salvaged materials.

For more information about disaster debris recycling and deconstruction, please contact DPPEA at (919) 715-6500. For a list of deconstruction businesses, refer to the Directory of Markets for Recyclable Materials (http://www.p2pays.org/dmrm) under "Deconstruction Services." For information about handling disaster debris, visit DENR's Web site: http://wastenot.ehnr.state.nc.us/SWHOME/emergef.htm. For a copy of the Disaster Debris Management Plan, contact Mark Munden at the Division of Emergency Management, (919) 733-0795.

**North Carolina 1997-1998 Solid Waste Annual Report (the report is available online at http://wastenot.ehnr.state.nc.us/swhome/frames.htm).*

Hurricane Update

Flooding from hurricanes Dennis, Floyd, and Irene have created environmental and natural resource emergencies in the eastern part of North Carolina in excess of anything the state has previously experienced. One of many cleanup efforts resulting from these hurricanes is the deconstruction of residential structures. Owners of residential structures that require demolition will likely be eligible for the Federal Emergency Management Agency buyout program. At least 500 more homes requiring deconstruction are expected to come from the Kinston, N.C., area alone. In total, more than 34,378 homes in North Carolina sustained damage from the hurricanes and flooding that followed.

What's new ... in business

In Business *is a bi-monthly publication that conveys information on creating sustainable enterprises and communities. It frequently highlights innovative, environmentally-friendly businesses endeavors and concepts. One such endeavor, involving a creative pallet recycling venture, is described below.*

SAFE SOLUTIONS LLC, Durango, Colo.: Inspired by Big City Forest, this pallet recycler is crafting fine, high-quality furniture from old, used pallets. Earlier this year the company was recycling 70 pallets per month on average and creating beautiful coffee tables, end tables, dressers, and other fine custom furniture.

According to Stuart Dimson, founder of Safe Solutions, the oak, maple, cherry, ash, poplar, beech, and tropical hardwoods found in pallets provides fantastic feedstock materials for his operations. Dimson comments, "This recycled wood is better than what you can buy at the store because we make it perfectly straight and square. The wood is much straighter because it's already warped the way it's going to from moisture and tension."

Safe Solutions markets most of its products wholesale to businesses like hotels. The company is positioning itself to compete with larger furniture companies on price and quality. "We're not saying: 'It's green, it's recycled, now you have to pay a lot for it," says Dimson.

Anyone interested in subscribing to *In Business* magazine should contact The JG Press Inc. at (610) 967-4135.

1998 NORTH CAROLINA Markets Assessment

OF THE RECYCLING INDUSTRY AND RECYCLABLE MATERIALS

Used Oil Filters

By Peter Ray, Former Intern

This article highlights information contained in the "1998 Markets Assessment: Used Oil Filter Commodity Profile." The commodity profile may be downloaded in its entirety at http://www.p2pays.org/ref/02/01622.htm/index.htm.

With nearly six million vehicles registered in 1997, the State of North Carolina generated more than 11 million light-duty oil filters. Unfortunately, because of the lack of landfill disposal restrictions in North Carolina, only 20 percent of used oil filters were accounted for by recycling in 1997. As a result, nine million used filters, representing 3,800 tons of steel and 250,000 gallons of used oil, were thrown away.

See Markets Assessment, page 10.

Filter Specialty: recycling used oil filters today for the welfare of tomorrow

By Jason Hale, Market Development Specialist

Nestled among the agricultural fields of Eastern North Carolina, Filter Specialty provides full service oil filter recycling for a diverse clientele, including industrial plants, marinas, and car dealerships. This service includes providing clients with collection drums, servicing the drums as needed, and recycling both the filters and the residual oil they contain.

The process is quite simple. Each time a client fills a 55-gallon collection drum with filters — 250 per drum on average — Filter Specialty is contacted. The full drum is exchanged for an empty one by a Filter Specialty employee, who transports the used filters to a processing facility near Fayetteville, N.C. At the facility, the drum is emptied into a multi-axis compression machine that crushes the filters into steel bricks. This compaction also results in the extraction of 98.5 percent of the residual oil, which is allowed to drain into a waiting storage tank. The steel bricks are stockpiled, then shipped to a steel mill for recycling. The used oil — sometimes as much as one cup per filter — is sold as boiler or kiln fuel.

According to Charles Jackson, owner and head sales representative for the company, "We hope to become one of the largest, most reliable recyclers of oil filters in the state." Recycling more than 150,000 filters each month, Filter Specialty is well on its way to achieving this goal. Jackson intends to double the size and capacity of his operation during the next year and is prepared to re-double that capacity in the future should demand for oil filter recycling continue to rise.

In addition to used oil filters, the company also offers recycling services for used antifreeze. Filter Specialty provides environmentally-sound storage containers, timely collection, and transportation of the used antifreeze to a processing facility for proper handling.

Jackson says his efforts are "for the benefit of the next generation." He backs this statement with his concern that residual oil from non-recycled filters runs the risk of polluting vast amounts of groundwater. (See accompanying article on page 8.)

"Recycling used oil filters is good for the environment and educational for the public," Jackson said. "When you do it, it gives you a good feeling because it provides environmental protection in a way that hasn't been addressed much locally."

Filter Specialty currently services clients in Eastern and Central North Carolina, as well as parts of South Carolina. However, Jackson would like to explore business relationships outside these regions. Filter Specialty welcomes inquiries from all parties interested in oil filter recycling, and can be contacted at (910) 567-5474.

Sustainable Jobs Fund

Capital for job creation in neighborhoods that need it.

A community development venture capital fund which finances recycling, remanufacturing, environmental and other companies that:

- require equity or subordinated debt capital to fuel profitable growth
- create quality jobs for low-income citizens or locate in economically distressed regions of the eastern United States

For more information, call **919.530.1177** or visit **www.sjfund.com**

Markets Assessment, from page 8

Figure 2. Recovery of Used Oil Filters from Light Duty Motor Vehicles in North Carolina, 1997 and 2002

	1997	2002
Total Oil Filters Generated (Sold)	11,709,890	13,415,672
Total Filters Recovered	2,334,031	3,109,788
Recovery Rate	20%	23%
Unaccounted for Used Oil Filters	9,375,859	*10,305,884*
Residual Used Oil from Unaccounted Oil Filters	256,372 gallons	*281,801 gallons*

Currently, North Carolina law exempts all non-terne plated oil filters from hazardous waste regulations if the filter has been hot drained.[1, 2] Before draining, a used oil filter can contain as much as 16 ounces of used oil. After hot draining, recent studies suggest that a filter can still contain between 3.5 and eight ounces of used oil.[3]

Contamination from residual oil in used filters presents a serious threat to North Carolina's environment in numerous ways. The U.S. Environmental Protection Agency (EPA) estimates that one gallon of used oil can pollute more than one million gallons of drinking water. In addition, small amounts of used oil that accumulate on water bodies can also prevent oxygen and sunlight from entering the water, reducing the plant and animal life in lakes, ponds, and rivers.[4]

According to feedback from recycling companies in the Southeast region, sufficient market capacity currently exists for recycling all three components of used oil filters: the steel shell, the paper filter media, and the residual oil.

With projections of continued population growth in North Carolina during the next few decades, issues of proper oil and filter management will become increasingly critical to preserving the integrity of the state's environment and natural resources. To achieve a more effective recycling approach, increased attention should focus on improving management techniques of the fastest growing sector of the used oil and filter market, quick oil change operations. Furthermore, efforts should also be made to increase the public awareness of higher automobile oil change intervals, which would greatly reduce the amount of used oil and filters generated.

[1] NC DPPEA, "Management of Used Oil Filters," 1996. Terne filters are used primarily in buses and large, off road trucks. The plating on terne filers contains lead and is therefore deemed a hazardous material. All non-terne filters are not regulated as hazardous wastes in North Carolina.
[2] Hot draining is defined as a gravity induced process at near-engine-operating temperature and above 60 degrees Fahrenheit.
[3] Communications with Brent Hazelett, Filter Manufacturers Council and Bob Boughton, California Environmental Protection Agency Integrated Waste Management Board, September 1998.
[4] U.S. EPA, Environmental Regulations and Technology, Managing Used Motor Oil, December 1994, p. 4.

R24, from page 1

been used in Europe for more than 50 years and in the United States more than 10 years. According to Juhas, "This is a proven process that fabricates a product that meets or exceeds building code requirements. Finger-jointed lumber is straighter than one-piece lumber and sells slightly below the price of competitive one-piece lumber."

As of June 1999 R24 had recovered more than 750 tons of southern yellow pine since its inception. Juhas anticipates that with the additional processing equipment made possible by the infusion of capital from Self-Help and SJF, more than 12,000 tons of discarded lumber will be recovered annually at R24's Charlotte facility.

Note: Key-Block Corp. was awarded $33,000 in grant funding from DPPEA as part of the 1997 Construction & Demolition Debris grant round. The funding assisted the company in the start-up phase of its operation.

State establishes new helpline to assist citizens, businesses, and government agencies

DENR CUSTOMER SERVICE CENTER

1-877-623-6748

TOLL FREE HOTLINE

The Department of Environment and Natural Resources (DENR) has established a Customer Service Center as a "one-stop information" source for questions or concerns about any of its programs. Citizens, businesses, and government agencies should find it easier to obtain information on environmental permits, natural resource protection measures, state parks, and other environmental services. Environmental professionals are available at the center to assist through a toll-free helpline at 1-877-623-6748 (1-877-NCENR4U) and Web site: www.envhelp.org.

The mission of the Customer Service Center is to provide prompt, accurate information on all of the State's environmental and natural resource programs, services, and regulations. The Customer Service Center answers a wide variety of questions, including permitting and regulatory issues previously handled by the Department's Environmental Permit Information Center (EPIC) as well as questions pertaining to the State's natural resource programs.

The Customer Service Center:

- Serves as a clearinghouse for information
- Assists citizens and businesses interacting with DENR
- Develops a resource network to address technical details
- Produces documents to meet customer needs
- Coordinates projects requiring multiple permits from within the department

Resource for New Businesses Now Available

The Business License Information Office of the Department of Secretary State has recently published a manual entitled ***Starting a New Business***. The manual is designed to provide vital information that all new businesses need. It contains information about:

- Applying for a business license
- Choosing the right business structure
- Registering your business's name
- Applicable taxes
- Employer requirements
- Listings for state occupational licensing boards and small business centers

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For more information call the Business License Information Office at

1.800.228.8443

or via the Internet at

www.secstate.state.nc.us/secstate

Reduce Reuse Recycle

The Recycling Business Assistance Center (RBAC) is a program of the North Carolina Division of Pollution Prevention and Environmental Assistance.

Call (919) 715-6500 or 1-800-763-0136 for free technical assistance and information about preventing, reducing, and recycling waste.

North Carolina market prices for recyclables

Prices current as of November 5

Item	Western Region	Central Region	Eastern Region
METALS			
Aluminum Cans, lb. loose	$0.49	$0.46	$0.55
Steel cans, gross ton baled	$35	$22	$15
PLASTICS			
PETE, lb. baled	$0.07	$0.04	$0.07
HDPE, lb. baled	$0.14	$0.04	$0.14
PAPER			
Newsprint, ton baled	$55-$65	$55	$65
Corrugated, ton baled	$95- $97.50	$95	$90
Office, ton baled	$150	n/a	$135
Magazines, ton baled	$60	$50	**
Mixed, ton baled	$40	n/a	$15
GLASS			
Clear, ton crushed	$42	$40	$25
Brown, ton crushed	$24	$30	$21
Green, ton crushed	$15	$0	$2

****Facility sells magazines 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/rbac1.htm

DPPEA-FY99-29. 2,000 copies of this public document were printed on recycled paper at a cost of $521.02, or $0.26 per copy.

NORTH CAROLINA RECYCLING BUSINESS ASSISTANCE CENTER

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