

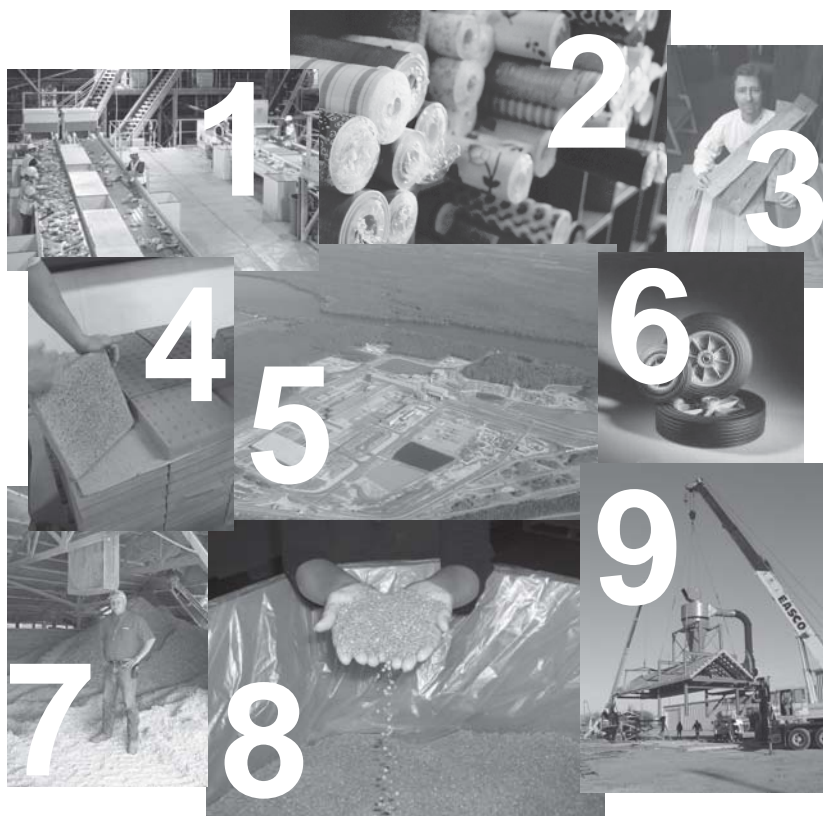
# Recycling Means Business!

## The Impact of Recycling on North Carolina's Economy



N.C. Department of Environment and Natural Resources  
March 2005

# Recycling Means Business!



## From the cover:

- 1 - Recycle America Alliance (p. 46)
- 2 - Habitat ReUse Center (p. 32)
- 3 - Oaks Unlimited (p. 41)  
(photo courtesy of *The Mountainer*, Waynesville)
- 4 - Elizabeth City Glass Inc. (p. 25)
- 5 - Nucor Corporation (p. 40)
- 6 - Roll-Tech LLC (p. 47)
- 7 - Union Gypsum (p. 53)
- 8 - Envision Plastics (p. 26)
- 9 - Scotland Neck Heart Pine Inc.(p. 48)

*Recycling Means Business!* 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.

Michael F. Easley, Governor, North Carolina

William G. Ross Jr., Secretary, Department of Environment and Natural Resources

## Division of Pollution Prevention and Environmental Assistance

For more information call (919) 715-6500 or (800) 763-0136, or write to DPPEA, 1639 Mail Service Center, Raleigh, NC 27699-1639.



Special thanks to: Institute for Local Self-Reliance, Washington, D.C., for the use of "Recycling Means Business."

DPPEA-FY-04-14. 1,200 copies of this public document were printed on recycled paper at a cost of \$4,200.00, or \$3.50 per copy.

# Table of Contents

---

Introduction .....	1
Recycling Jobs Impact .....	3
Recovering the “Waste Stream” .....	5
N.C. Recycling Business Assistance Providers .....	49
Company Profiles .....	7
Index .....	57
Index by County.....	58

***Recycling  
Means  
Business!***

---

# Introduction

---

**T**he insulation in your attic. A glass pickle jar in your cupboard. The pots your flowers came in. The cardboard box in your storage closet. The detergent bottle in your laundry room. The 1,000-piece puzzle you never completed. The red-dyed mulch you put under your trees. The soft drink bottle in your fridge. The litter in your kitty's box. Just about any piece of metal you touch. The newspaper you read this morning. The carpet under your feet. The tissue in the bathroom. The cereal boxes in the pantry. The wheels that roll your garbage cart. The composted topsoil in your garden.



What do all these things have in common? The journey of these products to your home started in your community's recycling program and North Carolina businesses helped make it happen. An amazing array of companies across the state help turn discarded materials into everyday things, all the while creating jobs for our citizens and investment in our economy. In fact, North Carolina's "recycling economy" is one of the fastest growing job engines in the state. The recycling economy in North Carolina is dynamic and a picture of diversity. It includes:

- Fortune 500 firms operating major manufacturing facilities in rural counties.
- A computer recycler bringing life and jobs back to an old textile mill.
- A plastics recycler using sophisticated, patented technologies to sort processed materials.
- A fast-growing compost company providing beneficial soil amendments to farmers in eastern North Carolina.
- A woman-owned collector and processor of commercial recyclables serving Triangle businesses.
- A small, family-owned paper processing business recently passed down to the second generation.
- A manufacturer of fine wood flooring who has integrated recycled materials into a new product line.

How can we help our fellow North Carolinians whose livelihood depends on recycling? The first answer is easy – recycle! These companies need material, and it does them no good if it's in a trash can or Dumpster. Empty bottles and cans, old computers, wooden pallets and discarded office memos buried

***Recycling  
Means  
Business!***



---

## ***Recycling Means Business!***

30 feet in a landfill rob our recycling employers of valuable feedstock. Every household, business, industry and government agency in North Carolina can help these companies grow and hire more people by making a commitment to recycle as much material as possible.

North Carolina can also help create and maintain a business climate that supports the success of recycling companies. Local communities and the state can help with policies, programs and incentives that drive materials out of the waste stream and into the hands of recyclers. Some recyclers struggle to compete against relatively low tipping fees to get materials. Access to capital can be improved. Maintaining a strong network of technical, economic development and business planning assistance can give companies a strong foundation for expansion and improvement. A need exists to raise public awareness of the recycling economy. Waste generators, decision-makers and the public should know about the economic development and waste diversion opportunities that recycling companies offer. Ultimately, what many recyclers need most is more supply, and it will take a concerted and broad-based effort to keep materials flowing their way.



***“North Carolina’s ‘recycling economy’ is one of the fastest growing job engines in the state.”***

This document provides a snapshot of the many faces of North Carolina’s recycling industry. The 42 companies featured here are just a few of the literally hundreds of recycling firms in the state. They demonstrate the idea that protecting the environment and creating jobs can be accomplished together. What’s good for the planet can also be good for the economy, and North Carolina’s recycling companies are poised to make North Carolina a national leader in making it happen.

# Recycling's Job Impact

**T**he N.C. Division of Pollution Prevention and Environmental Assistance recently conducted a survey to track recycling's impact on jobs and the North Carolina economy. This survey follows up on a similar effort conducted in 1994 and documents the growth of the recycling industry over the past decade. (A copy of the full study can be found at: <http://www.p2pays.org/ref/34/33911.pdf>.) Some of the findings include:

- Recycling employs approximately 14,000 people across the state.
- In 1994, recycling employed 8,700 people, rising 60 percent in 10 years to reach its current level.
- Recycling jobs as a percentage of the state's total employment has increased 40 percent in 10 years, from 0.25 percent of the total labor force in 1994 to 0.35 percent in 2004.
- Fifty-four percent of the businesses surveyed forecast creating more recycling-related positions in the next two years.
- Recycling employs more people than the bio-tech and agricultural livestock industries in North Carolina.
- The number of companies listed in the state's recycling markets directory has increased from 306 in 1994 to 532 in 2004, a 74 percent increase.
- Recycling companies in North Carolina range from Fortune 500 manufacturers to single proprietary, family-owned businesses, handling hundreds of different types of materials and products. Some of these companies now occupy old textile factories and other industrial plants abandoned by some of the state's more traditional industries.



Elizabeth City Glass employees transform glass bottles into patio pavers and other valuable products.

***Recycling  
Means  
Business!***

## ***Recycling Means Business!***

The recycling industry can be expected to continue its growth in North Carolina, with expansion of existing firms, the advent of new companies and a rising level of employment in this sector. The chief obstacle to growth is access to materials that are currently being thrown away and sent to landfills. Some of the ways that North Carolina can



Jackson Paper employee monitors master controls in its recycled paper-making operation.

foster the development of its recycling companies include:

- Enhancing the performance of local government recycling programs.
- Increasing the commitment of businesses, industries and the public to recycling.
- Addressing the relatively cheap cost and ease of disposal as a disincentive to recycling.
- Considering local or statewide disposal bans on materials that are needed by the state's recyclers.
- Providing funding to recycling collection efforts through mechanisms such as advanced recycling fees.

Every North Carolinian - at home, work or play - can participate in growing jobs through recycling. Recyclers are in towns and cities all around the state, they're hungry for more material, and if they get it, they can hire more people and increase their investment in our communities.



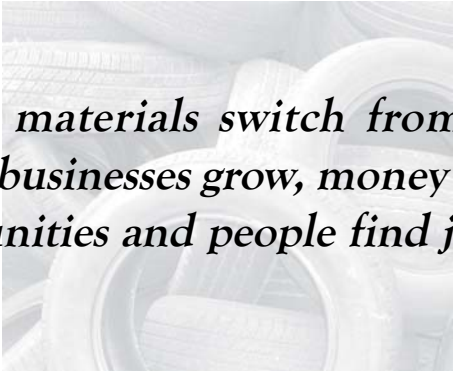
**Recycling employs more than 14,000 North Carolinians and recycling jobs have increased about 60 percent in the last ten years.**

# Recovering the “Waste Stream”

---

**N**orth Carolina’s waste disposal has been on an upward climb. Landfills serving the state received 6.8 million tons in 1991; by 2004 that number was 10.6 million tons, a rise of 56 percent. Some of this upsurge has been fueled by population growth, but the waste stream has also grown on a per capita basis, from 1.01 tons per capita in 1991 to 1.27 tons in 2004.

In using the term “waste stream,” however, it is easy to forget that the vast majority of what is disposed is highly usable material. An office memo, a plastic bottle, a cardboard box, a wooden pallet, leftover food, a computer – these are all commodities desired by the growing North Carolina recycling industry and feedstock to supply the rising demand for secondary resources. These resources only become “waste” when we make the mistake of putting them in a garbage can or Dumpster.



*“... when materials switch from waste to recycling, businesses grow, money is invested in communities and people find jobs.”*

What, then, are the major recoverable materials in the disposal stream? Below is a sampling of “wastes” that North Carolina recyclers can easily turn into commodities:

**Paper:** Newspaper, office paper, cardboard, magazines, chipboard – these are all paper “grades” in growing demand by foreign and domestic paper mills (including five mills here in N.C.). The estimated 1.8 million tons of paper discarded in North Carolina represent tremendous business opportunities for collectors, processors and end users of this material.

**Aluminum Cans:** Arguably one of the most valuable of all recyclables, and subject to a statewide disposal ban, as much as 25,000 tons of aluminum are still thrown away in North Carolina each year. Market value of the discarded material is approximately \$25 million.

**Wallboard:** Gypsum discarded from building sites across the state has useful agricultural properties, and can be used as feedstock for compost and animal

***Recycling  
Means  
Business!***



## Recycling Means Business!

bedding. Three hundred thousand tons of this material await diversion into value-added products in North Carolina.

**Food Waste:** Almost a million tons of food enters North Carolina landfills annually, but food rescue agencies and composters are starting to make a dent in this disposal. Some of the state's high-profile grocery chains and the North Carolina Farmers Market are among the early leaders in diverting food wastes, working with commercial composters in the Triangle region.

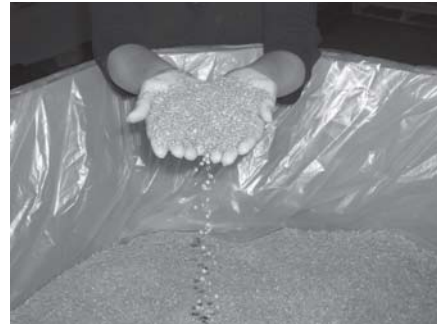
**Plastic bottles:** Few states are better poised to divert plastic bottles to beneficial use than North Carolina, with a number of nationally prominent processors and end users located in our state. The expanding appetite for recyclable resins by domestic and export markets makes it possible to divert all of the 87,000 tons of plastic bottles discarded in North Carolina each year.

**Wood and Pallets:** Arguably the "lowest hanging fruit" of the disposed stream, waste wood and pallets are experiencing a steady, large-scale growth in demand from a wide range of businesses. Pallet repair companies, wood fuel users, composters and wood flooring manufacturers could divert more than 500,000 tons of this material annually.

**Electronics:** The rapidly expanding use of computers, televisions, cell phones and other gadgets will present a waste diversion challenge to North Carolina. Fortunately, the state already has electronics collection and processing companies ready to handle all the material they can get their hands on, including the 50,000 tons annually generated in North Carolina.

**Glass:** The use of recycled glass, or cullet, to make new bottles and jars saves glass manufacturers a large amount of energy and improves their profitability. Recovering more glass can help the plants in North Carolina stay competitive, and can feed other smaller businesses making value-added products from cullet.

The waste stream is a potentially rich source of materials that can be put back to work for the North Carolina economy. The bottom line is that when materials switch from waste to recycling, businesses grow, money is invested in communities and people find jobs.



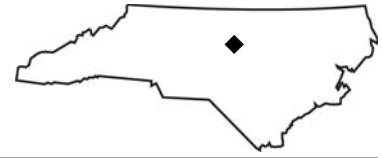
At Envision Plastics, flakes are pelletized according to clients' specifications - like Downy® Blue or Gain® Green.

# **Recycling Means Business!**

**The Impact of Recycling on  
North Carolina's Economy**

**RECYCLING COMPANY PROFILES**

# Brooks Contractors



**J**udy and Dean Brooks own and operate one of North Carolina's largest state-permitted composting facilities. In 1992, Chatham County's Brooks Contractors began accepting organics on its 30-acre facility to process into a valuable compost product. Brooks started out with only two employees, a couple of customers and a few hundred tons of organics to process. Today, Brooks has a substantial customer base, more than 55,000 tons to process each year, a fleet of trucks, 12 full-time and a few part-time employees.



Brooks' unique truck design has helped it expand its food collection services.

In the late 1990s, Brooks began offering collection of food waste to grocery stores, restaurants, microbreweries and cafeterias in Orange County. Food

***“Brooks has a substantial customer base, more than 55,000 tons to process each year, a fleet of trucks, 12 full-time and a few part-time employees.”***

collection expanded quickly from 700 tons the first year to more than 24,000 tons from Orange, Wake, Durham and surrounding counties. Brooks has made major contributions to the food collection and composting industry. The company designed a collection truck that provides several

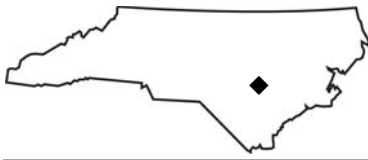
functions not found on a typical waste hauling truck. The truck weighs the container before and after dumping its contents into the truck. The truck is also equipped with a high-pressure water system that allows operators to clean out and sanitize each collection container after dumping. This valuable and unique feature has been critical to making the food collection service a success by nearly eliminating odor and fly complaints.

In addition to its original compost, Brooks has expanded its product line to include more than eight different products, including topsoils, flower bed mix and other compost blends to meet varied landscaping and agricultural needs.

For more information about Brooks Contractors, contact Judy Brooks at (919) 837-5914, e-mail: [brookscs@centernet.net](mailto:brookscs@centernet.net).

**Brooks Contractors  
Goldston  
Chatham County**

***Recycling  
Means  
Business!***



# Bryant's Recycling Inc.

**Bryant's Recycling Inc.**  
**Clinton**  
**Sampson County**

**B**ryant's Recycling Inc. is a family-run recycling operation that has been collecting and processing fiber and containers for recycling since 1997. Bryant's Recycling is owned by Fulton Bryant, who along with his sons Daniel and Byron, is focused on the continued growth of the company.

Recyclable material is collected from various municipal and industrial customers in the Sandhills region. In addition to on-site collection services and materials processing, Bryant's provides 53-foot trailers for storage and collection.



At Bryant's Recycling, plastic bottles are compressed into bales and shipped to market.

Bryant's Recycling provides collection and processing of cardboard, mixed paper, office paper, newspaper, plastic containers, aluminum and metal cans, and other industrial fiber products such as fiber cores. The company also has the ability to handle other types of material such as plastic film and window glass, as well as provide in-house document destruction.

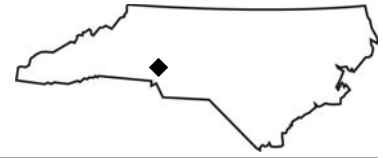
Bryant's Recycling processes about 8,500 tons per year of material, and employs 17 people at its Clinton facility. With its location in Sampson County, Bryant's Recycling has the ability to provide recycling services and processing in the historically underserved southeast region of North Carolina.

Bryant wants to provide a local market for surrounding county governments and municipalities, which could be a great resource to these communities. Bryant's Recycling is also looking at Raleigh and Fayetteville area commercial customers as targets for growth.

For more information about Bryant's Recycling Inc., contact Daniel Bryant at (919) 590-2200, e-mail: [abryantd@earthlink.net](mailto:abryantd@earthlink.net).

***Recycling  
Means  
Business!***

# Caraustar



**B**eginning in 1938 as Carolina Paper Board Corp. with its first plant in Charlotte, Caraustar has become one of the nation's leaders in recycled content packaging.

Caraustar ranks number one in recycled paperboard production in the United States, is the second largest producer of tubes, cores and composite containers and in the top 10 of folding carton production. Caraustar has grown over the past 65+ years to become a billion dollar company with 108 facilities worldwide employing more than 5,700 people.

Caraustar operates both a fiber recovery facility and a paperboard mill in Charlotte. Located in close proximity, these two operations employ 125 people. The recovery facility has a throughput of 55,000 tons of fiber per



Used paper is inspected and loaded onto a conveyor to be baled and shipped to a paperboard mill.

year. Ninety percent of the fiber consumed by the mill is supplied by the nearby recovery facility. Fiber grades include mixed paper, double lined kraft, corrugated cardboard and newspaper. The remaining 10 percent of consumed fiber is returns (boxboard cuttings) from paperboard customers.

The paperboard mill produces 52,000 to 55,000 tons of 100 percent recycled rigid boxboard and chipboard annually. In addition to

the recovery and mill operations, Caraustar has converting, paper tube, container and box plants located across North Carolina.

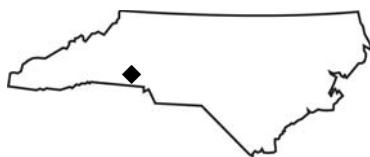
For more information about Caraustar, contact Jason Garrison at (704) 376-7474 or [Jason.garrison@caraustar.com](mailto:Jason.garrison@caraustar.com). You can also visit its Web site at: <http://www.caraustar.com>.

***“Caraustar ranks number one in recycled paperboard production in the U.S.”***

**Caraustar  
Charlotte  
Mecklenburg County**

***Recycling  
Means  
Business!***





# Carolina Materials LLC

**Carolina Materials LLC**  
**Belmont**  
**Gaston County**

**C**arolina Materials LLC, formerly known as Texas Encore Materials, relocated from Romulus, Mich., to Belmont in spring 2004. For more than 11 years, Carolina Materials researched and developed a process incorporating recycled tire pieces into new manufactured products. The N.C. facility manufactures extruded sheets made from recycled rubber and plastic resins. The finished sheets are used in automotive, industrial and consumer applications. In the automotive sector, the extruded sheets are used to make a reversible luggage liner in the Ford®Taurus™.

Carolina Materials currently employs 20 people and has used more than 40,000 pounds of recycled tire crumb in its initial start-up year. The company recently purchased two additional sheet extruders, which will increase production four-fold. Carolina Materials

expects to employ a total of 100 workers with an average salary of \$16 per hour within the next three years. “[The company’s] announcement to locate in Gaston County not only provides the state with high quality jobs but demonstrates yet again that job creation and environmental protection can go hand in hand,” said Gov. Mike Easley.

***“[The company’s] announcement to locate in Gaston County not only provides the state with high quality jobs but demonstrates yet again that job creation and environmental protection can go hand in hand.”***

*- Gov. Mike Easley*

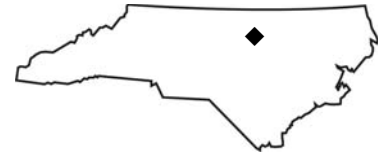


Carolina Materials transforms recycled tire pieces into products like reversible luggage liners.

For more information about Carolina Materials, contact Dr. Philip Friedman at (704) 825-1033, or visit the company’s Web site at: <http://www.carolinamaterials.net>.

***Recycling  
Means  
Business!***

# Clean Green Inc.



High-tech machinery purifies used antifreeze at Clean Green.

**C**lean Green Inc. is a unique and growing recycling business that processes between 5,000 and 7,000 gallons of antifreeze per week at its plant in eastern Durham. The used antifreeze is purified by a patented filtration system designed by the company's owner, Tim Wilkinson. A longtime

Durham car repair shop owner and auto mechanics teacher, Wilkinson saw a need to improve the handling of the hazardous fluid and, in the true entrepreneurial spirit, learned the chemistry involved to create the process necessary to purify antifreeze.

Incorporated in 1997, Clean Green now employs 10 people. It operates five trucks for collecting waste and delivering recycled antifreeze. Subject to the same standards as the virgin product, the recycled antifreeze is available in all major colors and formulations. The company collects used antifreeze from many sources, including the automotive industry, municipalities, N.C. landfills and collection centers and other industries. However, a majority of the used antifreeze is collected from the companies purchasing the reprocessed product. This offers companies a closed-loop system of recycling for their antifreeze needs. Customers save dramatically by purchasing Clean Green's recycled antifreeze, which sells for less than half the price of virgin antifreeze.

Wilkinson has watched the company grow approximately 20 percent each year and is expanding operations to include recycling of used oil filters. Clean Green is now reprocessing more than 300 barrels (45-50 tons) each month of used oil filters. These filters are 100 percent recyclable and contain valuable steel and waste oil used for fuel.

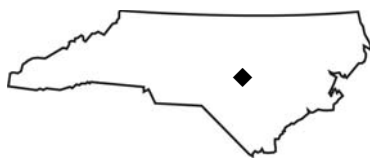


Owner Tim Wilkinson and son, Andrew.

For more information on Clean Green Inc., contact Tim Wilkinson at (919) 596-3500, or [cleangreen@verizon.net](mailto:cleangreen@verizon.net).

**Clean Green Inc.**  
**Durham**  
**Durham County**

***Recycling  
Means  
Business!***



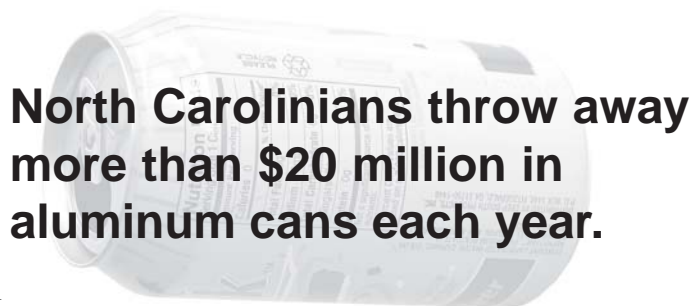
# Cohen and Green Salvage Company Inc.

**Cohen and Green  
Salvage Co. Inc.  
Fayetteville  
Cumberland County**

**F**ayetteville is home to Cohen and Green Salvage Company Inc., a metals handler and processor. Established in

1946, this privately-owned company serves the eastern and central part of North Carolina as a market for ferrous and non-ferrous metals. Cohen and Green handles practically every type of metal commodity from aluminum to zinc, including automobiles, electronic/computer equipment, appliances, gold, silver and more. Cohen and Green processes, separates, grades and markets these commodities, utilizing 30 full-time workers.

The company's president, Michael Green, says that although the metals recycling industry is currently very stable, challenges to the business include transportation costs and complying with an ever-growing list of regulations. "Cohen and Green Salvage and the metals recycling industry as a whole are working to recycle as much metal as possible while complying with environmental regulations," said Green.



**North Carolinians throw away  
more than \$20 million in  
aluminum cans each year.**

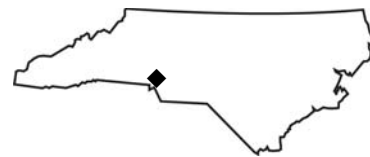
**Making products from  
recycled aluminum  
instead of virgin materials  
results in a 90 percent  
energy savings.**



***Recycling  
Means  
Business!***

For more information about Cohen and Green Salvage Company, call Michael Green at (910) 483-1371, or e-mail: [Mgreen6592@aol.com](mailto:Mgreen6592@aol.com)

# CompuTel IG LLC



**C**ompuTel IG LLC is a family-owned Charlotte-based recycling business started in 1995 by John Rhinehardt. The company collects, processes and markets materials in the emerging area of computer and electronics recycling. CompuTel prides itself on being one of only a handful of electronic recyclers that will accept a complete range of consumer electronics from a wide variety of sources. Those sources range from large generators such as state and local government agencies, international power companies and utilities, school districts and a national asset management company, to local residents who routinely drop-off material at CompuTel's Charlotte location.



Computer monitors are transported to a staging area and then dismantled for recycling.

In 2003, CompuTel recovered more than 600 tons of electronic equipment that would otherwise have required disposal. Thanks to the purchase of a 24-foot box-body truck, CompuTel anticipates increasing its recovery efforts to more than 750 tons of electronic scrap per year. The purchase of that vehicle was partially financed through grant funding from the N.C. Department of Environment and Natural Resources.

***“In 2003, CompuTel recovered more than 600 tons of electronic equipment that would otherwise have required disposal.”***

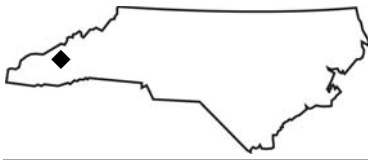
John and his son Brett are optimistic about the company's future and project continued growth, based in part on being named as available vendors in the North Carolina Electronic Recycling Services State Term Contract.

CompuTel currently employs seven people and, should its growth trend continue, may add three to five jobs over the next year.

For more information about CompuTel, contact Brett Rhinehardt at (704) 376-1116, e-mail: [Brett@Computelig.com](mailto:Brett@Computelig.com).

**CompuTel IG LLC  
Charlotte  
Mecklenburg County**

***Recycling  
Means  
Business!***



# Curbside Management Inc.

**Curbside  
Management Inc.  
Asheville  
Buncombe County**

**C**urbside Management Inc. is a collector-processor of residential and commercial recyclables located in Asheville. A majority of material recovered by Curbside is collected through residential collection programs set up with many of the region's municipalities. Owner David Johnson has combined business savvy with ingenuity to stay competitive against the large waste haulers that compete for municipal contracts in the region.

Curbside recently expanded operations to include a semi-automated material recovery facility. When this facility opened in August 2003, it was able to handle the material collected by Curbside as well as provide an outlet for other

recyclers to deliver material for processing. Curbside is currently processing about 6,000 tons per year of recyclable materials that include cardboard,

newspaper, office paper, mixed paper, glass and plastic bottles, and metal cans. The collection and processing operations employ 38.

**Last week North Carolina  
trashed enough newspapers  
to fill nearly three football  
fields three feet deep.**

In addition to providing important processing capacity for this region of the state, the MRF has also allowed Curbside to expand its collection services. Curbside moved forward with plans to expand its commercial recycling operations as well as offer mixed paper recycling to the municipalities it serves. With equipment partially financed through grant funding from the N.C. Department of Environment and Natural Resources, it began rolling out expanded recycling collection services for commercial customers in the city of Asheville.



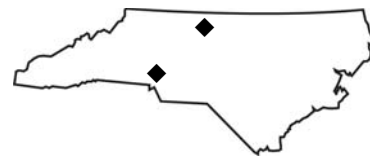
Curbside's Owner David Johnson.

For more information about Curbside Management Inc. contact David Johnson at (828) 252-2532, e-mail: [djohnson@curbie.com](mailto:djohnson@curbie.com). You can also visit the company's Web site at: <http://www.curbie.com>.

***Recycling  
Means  
Business!***



# Custom Polymers Inc.



**C**ustom Polymers Inc., a North Carolina-based company with production facilities in Charlotte and Houston, Texas, and sales offices in Durham, Chicago, Ill., and Toronto, Canada, has been in the plastics recycling business since 1996. Partners John Calhoun and Phil Howerton have built a multifaceted business that employs 15 people at its North Carolina locations and handles a vast array of recycled resins, including both commodity and engineering grade materials.

Custom Polymers' sales consist of 80 percent post-industrial materials and 20 percent post-consumer. It sells approximately nine million pounds of plastics per month in the form of scrap, regrind and pellets.

The company specializes in the regrounding and reprocessing of industrial plastics, but has recently begun to expand its business by focusing on post-consumer bottles. As part of that growth, a new partnership was formed recently to acquire 50 percent of Blue Ridge Plastics in Eden. Custom Polymer's plant is a washing and grinding facility that processes approximately 1.6 million pounds of post-consumer bottle material per month into clean flake. The company is also very active on the international scene, with two sister companies located in Toluca, Mexico.

**“Custom Polymer processes approximately 1.6 million pounds of post-consumer plastic bottles each month.”**



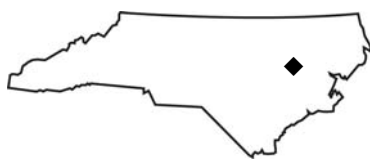
**The United States plastics industry includes 2015 companies with more than 35,000 employees.**

For more information about Custom Polymers, contact John Calhoun at (704) 332-6070 or [john@custompolymers.com](mailto:john@custompolymers.com). You can also learn more about the company at its Web site: <http://www.custompolymers.com>.

**Custom Polymers Inc.  
Charlotte  
Mecklenburg County**

**Custom Polymers Inc.  
(Blue Ridge Plastics)  
Eden  
Rockingham County**

***Recycling  
Means  
Business!***



# Eastern Carolina Vocational Center Inc.

**Eastern Carolina  
Vocational Center Inc.  
Greenville  
Pitt County**

**E**astern Carolina Vocational Center Inc. has operated a recycling business in Greenville for more than 25 years as a way to provide jobs for people with disabilities. In 1995, ECVC built a recyclables-processing center otherwise known as a materials recovery facility. ECVC employs 80 people in its recycling operation. Residential and commercial recyclables generated in Pitt and nearby counties are sorted at the MRF and prepared for market. Materials handled include plastic bottles, newsprint, glass containers, steel cans, aluminum cans, cardboard, office paper and mixed paper including paperboard boxes, magazines and phone books. With the exception of glass, all materials are baled and sold in the domestic and foreign markets. ECVC processes 30,200 tons of recyclables each year.



ECVC employees sort incoming recyclables.

ECVC provides much-needed recycling processing infrastructure to eastern North Carolina. In 2002, ECVC received an award from the National Recycling Coalition for "Outstanding Environmental and Community Leadership." With the help of a N.C. Department of Environment and Natural Resources' grant in 2004, ECVC will be installing equipment to enable processing of cleaner, higher-value recyclables. Revenue generated from the savings will be used to increase the recovery of mixed paper from the region.

For more information about ECVC, contact Doug Bonds at (800) 758-4188, or e-mail [dbonds@ecvcinc.com](mailto:dbonds@ecvcinc.com). You can also visit the company's Web site at: <http://www.ecvcinc.com>.

***Recycling  
Means  
Business!***

# Elizabeth City Glass Inc.



**L**ocated in Pasquotank Industrial Park on the north side of Elizabeth City, Elizabeth City Glass Inc. is both a processor and end user of construction glass, Pyrex, ceramics and mixed post-consumer container glass.

After spending three years in the research and development phase, ECG began operation on Jan. 1, 2004, as a full-scale, operational pilot project. The brand-new facility includes a 16,000 square foot building with most operations under roof. Truck scales and an industrial-sized hopper provide the tools for handling feedstock coming into the facility. Material is offloaded directly into the hopper where the materials are transported to the processing equipment inside the facility. Inside the facility, the glass material is crushed, screened and washed. The finished material is used to produce a product line of utilitarian and decorative precast concrete products with 82 percent recycled glass content. Products at the facility include crosswalk tactile warning blocks for the physically challenged (American with Disabilities Act compliant), parking lot wheel stops and patio pavers.



ECG's dimpled patio pavers are made from more than 80 percent recycled glass.



Owner Shawn Lemmond shows the facility's incoming glass feedstock storage area.

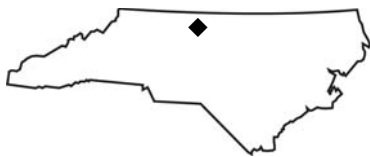
At current production levels, ECG employs four people and is recovering 384 tons per year of glass waste. ECG expects to grow as sales increase in 2005. With few outlets for recovered mixed glass in the northeastern part of the state as well as southeastern Virginia, ECG is providing a much-needed market for this material.

ECG was a recipient of a 2004 N.C. Department of Environment and Natural Resources' grant. As traditional markets for glass container recycling continue to decrease, ECG's research and development may open up other avenues for using glass waste in other types of precast concrete products.

For more information about ECG, contact Shawn Lemmond at (252) 333-1002 or e-mail at [ECGCompany@aol.com](mailto:ECGCompany@aol.com). You can also visit its Web site at: <http://www.glass-recycling.com>.

**Elizabeth City Glass Inc.**  
**Elizabeth City**  
**Pasquotank County**

***Recycling  
Means  
Business!***



# Envision Plastics

**Envision Plastics  
Reidsville  
Rockingham County**

**E**nvision Plastics is the second largest high-density polyethylene plastic recycler in North America with plants in Reidsville and Chino, Calif. Envision employs 60 people and processes about four million pounds per month of post-consumer plastics at its North Carolina facility.



At Envision Plastics, flakes are pelletized according to clients' specifications - like Downy® Blue or Gain® Green.

Like other plastics processors, Envision receives baled plastics that are ground into flakes and are then washed and dried. Next, Envision uses state-of-the-art technology that color sorts the flakes into distinct colors specific to clients' specifications such as "Downy® Blue" or "Tide® Red." The flakes are then pelletized and sold to blowmolding companies throughout the United States, including several in North Carolina that manufacture new colored bottles. Although other recyclers hand-sort the plastic flake, Envision is the only company employing an automated color-sort technology.

***"Envision Plastics is the second largest high-density polyethylene plastic recycler in North America ..."***

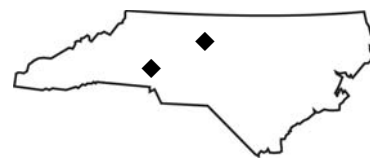


Envision customers can save money by reducing the amount of colorants they need to add in their manufacturing process. They are also able to use the copolymer HDPE resin found in detergent bottles, as opposed to the homopolymer found in unpigmented milk jugs, to make new detergent bottles. The copolymer resin has demonstrated better environmental stress crack resistance when customers perform "drop tests" on their finished product.

***Recycling  
Means  
Business!***

For more information about Envision Plastics, contact Todd Payne at (336) 342-4749 or e-mail [todd@envisionplastics.com](mailto:todd@envisionplastics.com).

# FCR and U.S. GreenFiber



**F**CR, a subsidiary of Casella Waste Systems, operates recovery facilities and reprocessors in the Southeastern and Midwestern United States.

Headquartered in Charlotte, FCR operates recycling facilities there and in Greensboro. Both cities work with FCR as its processing partner for its local recycling programs. The company sorts, processes and markets commingled materials under long-term contracts with municipalities and other authorities.

Together the FCR facilities in North Carolina employ 63 full-time and 12 temporary workers, and process around 97,000 tons of recyclables each year. In addition, FCR's Charlotte facility hosts an education center designed to educate school groups and the public about how FCR's recycling process helps the environment.

Casella Waste Systems is also fifty percent owner of U.S. GreenFiber LLC. Established in 2000, GreenFiber is a producer of Cocoon®, a cellulose insulation with national manufacturing and distribution capability. With an 85 percent recycled content, Cocoon® insulation is used in attics and exterior walls to provide thermal comfort, added fire safety and noise reduction.



U.S. GreenFiber makes Cocoon insulation out of old newspapers.

Old newspapers collected in Charlotte enter FCR's material recovery facility, where they are separated from other recyclables and converted into packaged cellulose insulation at the GreenFiber plant operating within the FCR building. The integrated operation optimizes efficiency by eliminating transportation for the product feedstock. This insulation plant is one of 10 in the country and serves as a model of vertical integration for recyclers and other manufacturers. The 30 employees of Charlotte's GreenFiber manufacturing plant process more than 27,000 tons of newsprint and other papers into the cellulose insulation each year.

For more information about FCR, contact Bill Leonidas at (704) 379-0625, [billleonidas@casella.com](mailto:billleonidas@casella.com), or visit its Web site at <http://www.casella.com/locations/fcr>.

For more information about U.S. GreenFiber, contact John Harkavy at (704) 379-0654, [john.harkavy@us-gf.com](mailto:john.harkavy@us-gf.com), or visit its Web site at <http://www.greenstone.com>.

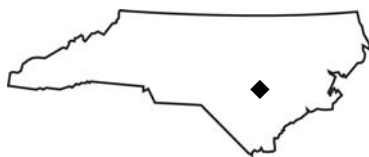
**FCR**  
**Charlotte**  
**Mecklenburg County**

**FCR**  
**Greensboro**  
**Guilford County**

**U.S. GreenFiber**  
**Charlotte**  
**Mecklenburg County**

**Recycling**  
**Means**  
**Business!**





## Filter Specialty

**Filter Specialty  
Autryville  
Sampson County**

**C**harles Jackson established Filter Specialty in Autryville in 1997 to recycle oil filters from automotive, marine and industrial sources. Oil filters have scrap value as metal, and also contain residual oil that can end up leaking and causing contamination problems. Although oil is officially banned from disposal in North Carolina landfills, a large amount is still disposed with oil filters.



Owner Charles Jackson unloads drums of used oil filters for reprocessing at the Autryville facility.

Filter Specialty has grown because of its strong service record and its proven ability to process and market the filters. Its customers include utility companies, school bus garages, government agencies, car dealerships, repair shops and many others. It also provides processing services to other filter collection companies in North Carolina.

**North Carolina's more than six million registered motor vehicles generate more than 12 million used oil filters per year.**

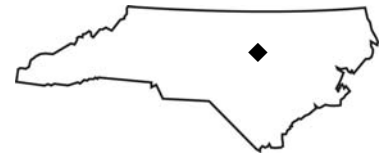
The company handles around 720 tons of filters per year, which it crushes with a machine that extracts residual oils and then creates dense metal briquettes. The metal is sent to steel mills and foundries. The 40,000 to 60,000 gallons of oil recovered annually from the filters and the company's oil recycling service is sent to refiners that manufacture boiler fuel.

All of Filter Specialty's processing is done indoors with the proper permitting and environmental controls. Charles Jackson employs two others in the company, and is in a strong position to grow his business. With the ability to market all the filters and oil it collects, Filter Specialty just needs more supply and more customers.

For more information, contact Filter Specialty at (910) 567-5474 or [filterspecialty@intrstar.net](mailto:filterspecialty@intrstar.net). You can also visit the company's Web site at: <http://www.filter-specialty.com>.

***Recycling  
Means  
Business!***

# Food Bank of Central & Eastern N.C.



**T**he Food Bank of Central & Eastern North Carolina was founded as the state's first food bank in 1980 as the Community Food Bank. Since then, the Food Bank has expanded services in an attempt to keep pace with a growing demand for emergency food, distributing more than 100 million pounds of food in the process. In 1984, the Food Bank gained affiliation with America's Second Harvest.

The Food Bank has outgrown its warehouse space three times since partnering with Second Harvest. With a primary facility in Raleigh, the Food Bank also has branch warehouses in Durham, Greenville, Southern Pines and Wilmington. In 1985, the organization distributed nearly 1 million pounds of food to a network of nearly 100 agencies. In 1996, distribution rose to 6.5 million pounds of food to a family of 480 private, emergency feeding programs and sister food banks (one million pounds of which was disaster relief in the wake of Hurricane Fran). Hurricane Floyd devastated eastern North Carolina in 1999, and with it came the Food Bank's largest distribution ever.



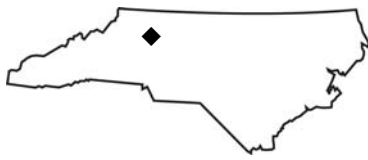
Nutritious, non-perishable foodstuffs that would have been sent to a landfill are given a second life through the Food Bank.

The Food Bank distributed 18.8 million pounds of food in fiscal year 1999-2000. Last fiscal year, the Food Bank distributed 26.4 million pounds of food, a 71 percent increase from just five years ago. Today, the Food Bank provides in excess of two million pounds of food every month to 865 nonprofit, community-based, emergency feeding programs (soup kitchens, food pantries, homeless shelters, group homes, day care and after-school centers, and elderly nutrition programs), serving more than 375,000 individuals at risk of hunger in 34 central and eastern North Carolina counties. In spring 2003 the Food Bank received a grant from the N.C. Department of Environment and Natural Resources to help purchase additional sorting equipment and a stacker that made it possible to double its egg distribution capabilities.

For more information about the Food Bank and its programs, please contact Peter Werbicki, acting executive director, at (919) 875-0707, or visit the Web site: <http://www.foodbankcenc.org>.

**Food Bank of  
Central & Eastern N.C.  
Raleigh  
Wake County**

***Recycling  
Means  
Business!***



# Foothills Sanitation & Recycling

**Foothills Sanitation & Recycling**  
**Wilkesboro**  
**Wilkes County**

**F**or the past 15 years, Jeff and Janet Miller have provided excellence in recycling service to the area in and around Wilkes County through their company, Foothills Sanitation & Recycling. The company that began as J&J Recycling has continued to grow over the years despite a near-devastating fire, and the many ups and downs associated with end-market pricing. For the past few years, Foothills Sanitation and Recycling has been in a planning and construction phase for a new sorting facility. The small-scale recovery facility takes in all types of recyclables, sorts the material and markets it to end users and recycling manufacturers. The company currently employs 26, but plans to add another 10 employees once the sorting facility is fully operational. Positive results from the new facility are already evident. Paper recycling production has increased from 12,100 tons to almost 17,000 tons annually with future increases anticipated.



Horizontal balers, like Foothill Sanitation's, are an integral part of many material recovery facilities across the country.

***“Paper recycling processing has increased from 12,100 tons to almost 17,000 tons annually with future increases anticipated”.***

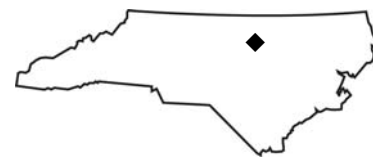
Now that its new sorting facility is online, the company is experiencing a steady increase of tonnage and is looking forward to

expanding the list of materials that it handles. Along with an increase of intake of non-ferrous metals, the company is also looking toward the possibility of expansion into the arena of electronics recycling. According to Jeff Miller, the biggest hurdle the company faces is educating the general public about the importance of recycling and how to recycle the right materials.

For more information about Foothills Sanitation & Recycling contact Jeff or Janet Miller at (336) 667-4432, or visit the Web site at: <http://www.foothillssanitation.com>.

***Recycling  
Means  
Business!***

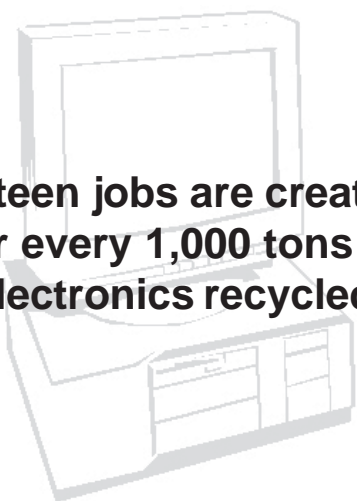
# GEEP/ARC



**G**lobal Electric Electronic Processing Inc. and Asset Recovery Corporation are two e-waste recyclers located in the same Durham facility. These separate companies work in partnership to provide comprehensive electronics recycling and remarketing services to clients nationwide. Some of their larger clients include: Nortel Networks, Unisys Corporation, Silicon Graphics, ADC Telecommunications and Honeywell International.

GEEP/ARC also have the ability to handle material from community collection events. The companies can provide municipalities and local governments e-waste collection services including event management, transportation and processing.

**Fifteen jobs are created  
for every 1,000 tons of  
electronics recycled.**



GEEP/ARC is a vertically-integrated processor of computer and electronic scrap. GEEP de-manufactures the material by carefully dismantling the equipment for reuse and salvage. In addition to standard de-manufacturing capabilities, GEEP's parent company, Cable Recycling Inc., is a final destination for sorted electronic components that can provide shredding, grinding and final sale of commodity-based material streams. This includes the assaying

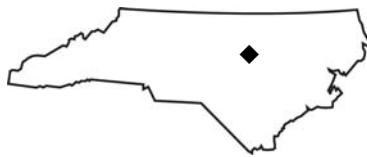
and separation required to extract copper, gold, silver and other metals from cables, circuit boards and metal-containing electronic components. The resulting commodity streams are then sold back into the marketplace.

At the Durham facility, GEEP/ARC employs 25 and recycles about 10,000 tons of electronics per year. This includes material sold at auction, repaired and resold through wholesale markets and Internet sales, and material that is de-manufactured.

For more information about GEEP/ARC, contact Tom Fellows at (919) 544-1443, or e-mail [tomfellows@geepinc.com](mailto:tomfellows@geepinc.com). You can also visit their Web sites at: <http://www.cablerecyclinginc.com> and <http://www.assetrecoverycorp.com>.

**GEEP/ARC**  
**Durham**  
**Durham County**

***Recycling  
Means  
Business!***



# Habitat ReUse Center

**Habitat ReUse Center  
Raleigh  
Wake County**

If you want a bargain on building supplies in Raleigh, visit the Habitat ReUse Center on Alwin Court - just off of Hodges Street. The ReUse Center accepts donations of used or surplus building materials and furniture - everything from windows and doors to lumber, fixtures and cabinets - and sells them to the public at discounted prices to raise funds for Habitat's homebuilding activities.

Habitat for Humanity of Wake County was one of the first in the state to start an affiliate ReUse store. After outgrowing an initial facility, it moved to a bigger warehouse in 2000. Now, with business booming and more materials available than ever before, the ReUse Center may soon expand again.

The Habitat facility diverts materials from disposal by receiving tax-deductible donations from builders, manufacturers, businesses with surplus inventory, retailers, universities and individuals. The center has also reinvigorated its deconstruction program, sending crews to homes slated for demolition to salvage doors, windows, flooring, cabinets and other reusable items.

The ReUse Center has become a popular spot for homeowners to find inexpensive, high-quality building supplies. In the past year alone, sales have grown from \$576,292 to \$777,855. The "profit" generated helped finance the building of five homes in 2004 by Habitat for Humanity of Wake County.



and Charlotte. Together, these centers are capturing value from the waste stream, putting perfectly good materials and products back to work and raising money for the building mission of Habitat for Humanity.

For more information about the Wake Habitat ReUse Center, call (919) 833-6768, or visit <http://www.habitatwake.org/ReuseCenterpage>.

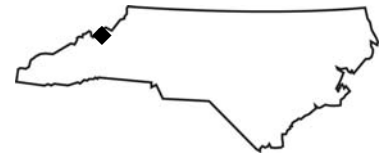


Customers can find a wide variety of materials at the ReUse Center, including hardware and building supplies.

***Recycling  
Means  
Business!***



# Hartsell Scrap Metal



**H**artsell Scrap Metal has operated under the ownership of John Hartsell since 2001. Formerly known as “Hollifield Brothers Used Auto Parts and Scrap Metal,” the original company opened its doors in the early 1990s, serving the western North Carolina area. Based in Spruce Pine, the company handles used auto scrap, aluminum and steel cans, copper, white goods, steel industrial machinery and other ferrous and non-ferrous scrap.

In addition to Hartsell, the company employs three people full-time and one part-time. Although recent fuel cost increases have had a negative impact on profits, the overall stability of the metals markets has helped to compensate to make Hartsell Scrap Metals very stable.



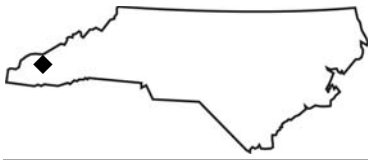
**The national recycling rate for steel is 64 percent. Making new products from recycled steel vs. virgin materials results in 60 percent energy savings.**

Hartsell is looking toward the possible expansion into the electronics scrap market in the future and is considering the purchase of a shredder in order to add additional on-site processing capability.

For more information on Hartsell Scrap Metal, call John Hartsell at (828) 765-5265.

**Hartsell Scrap Metal**  
***Spruce Pine***  
***Mitchell County***

***Recycling***  
***Means***  
***Business!***



# Jackson Paper

**Jackson Paper**  
**Sylva**  
**Jackson County**

**J**ackson Paper is a major independent producer of 100 percent recycled content paper. The company recently developed an engineered recycled paper product designed as alternative poultry bedding. Located in the heart of the mountain town of Sylva, the recycled paper mill employs 132 workers that produce about 300 tons of paper per day from used corrugated cardboard containers. Through its use of more than 96,000 tons of cardboard each year, Jackson Paper serves as a major market for cardboard recycling centers in North Carolina and surrounding states.



Jackson Paper employee monitors master controls in its recycled paper-making operation.

Built in 1928, the facility is a main fixture on Sylva's Main Street. Current owner Timothy Campbell acquired the mill in 1995. Under Campbell's management,



Jackson Paper produces almost 300 tons of paper per day from used corrugated cardboard containers.

Jackson Paper has not only steadily increased production and profit, but has also proven itself as an environmental leader. To minimize waste and maximize product output, the mill utilizes a unique process that binds two trim rolls from the main paper machine into one larger roll of product. In addition, Jackson Paper is one of only a handful of mills in the United States with a closed-loop water system and treatment plant, allowing zero discharge of waste into the nearby stream or

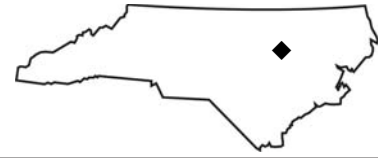
municipal sewer. Further reducing N.C.'s waste stream, Jackson Paper also purchases more than 60,000 tons per year of sawdust from area sawmills and furniture makers for steam combustion to produce the energy needed to operate the mill.

With its diversified products, experienced management and environmental stewardship, Jackson Paper has a clear and important role to play in North Carolina's economy.

For more information, contact Don Arrington, at (828) 586-5534, e-mail: [donarrington@jacksonpaper-nc.com](mailto:donarrington@jacksonpaper-nc.com), or visit the company's Web site at: <http://www.jacksonpaper-nc.com>.

***Recycling  
Means  
Business!***

# K&K Recycling



**K**&K Recycling is a family-owned paper processing company in Wilson. The company was started by Kenneth Radford in 1990. When Radford passed away in 2004, his sons Kenneth and Kelly decided to keep the family business going.

K&K focuses on corrugated cardboard, paper tubes and high grade (office) paper, but can handle newsprint, magazines, residential mixed paper and other types of fiber. It receives materials through private haulers and collection contracts with business and industrial customers. K&K also receives some material from local government recycling programs and is interested in getting more. In addition, it processes film plastics (stretch-wrap) generated by local industries.

**Almost 80 percent of United States papermills rely on recycled feedstock. In fact, it comprises 37 percent of their supply.**

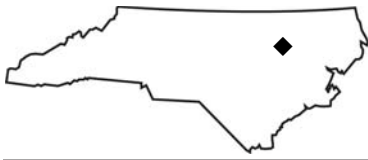
The heart of K&K is its large Mosely baler, which produces bales up to 1,350 pounds for shipment to paper mills. Most of its paper is shipped to manufacturers of corrugated cardboard and other types of paper, but K&K also exports some of its materials through some of its existing paper mill contracts.

K&K processes about 16,000 tons per year, but has the capacity to double that amount. Its markets are strong and it is looking for more customers and additional material. The company currently employs six people and is planning improvements to its facility, including new scales and possibly a commingled processing line.

For more information about K&K, call (252) 237-3010 or e-mail: [kkrecycling@earthlink.net](mailto:kkrecycling@earthlink.net).

**K&K Recycling**  
**Wilson**  
**Wilson County**

***Recycling  
Means  
Business!***



# Kamlar Corporation

**Kamlar Corporation  
Rocky Mount  
Nash County**

**S**ince 1966, Rocky Mount's Kamlar Corporation has been producing high-quality mulch products using recycled wood waste. Kamlar uses wooden pallet and crate waste generated in eastern North Carolina as the main feedstock for the production of a variety of mulch products sold commercially throughout the East Coast, Midwest and Canada. Approximately 12,000 tons of wood waste is recycled each year into value-added landscaping products rather than being buried in a landfill. Kamlar employs 35-40 people during peak season and 22 people in the off-season.

Kamlar's mulch-making process involves grinding the large wooden pallets and crates into small pieces using a tub grinder. A magnetic separator removes all the nails and metal pieces to ensure a safe product. The small pieces of wood waste are sent through a mechanical screening system for size uniformity and consistency. A variety of the product line is colored red, black or brown using environmentally-friendly, non-toxic dyes. Kamlar's product line includes colorized mulch, shredded mulch, cypress mulch, pine bark and professional products such as nursery mix, soil conditioner and federally-certified playground mulch. Kamlar's products can be found in big box stores such as Home Depot® and Lowes® and other small to medium-sized garden stores.



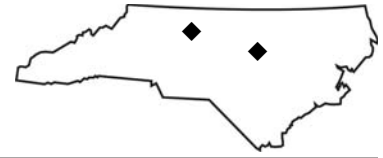
Owner Roger Seale in front of discarded pallets that will be ground into mulch.

Kamlar is a strong, growing North Carolina company. With the help of a N.C. Department of Environment and Natural Resources' grant in 2004, Kamlar purchased equipment that will enable it to double the amount of material it is currently producing.

For more information about Kamlar, contact Roger Seale at (252) 443-2576, e-mail [Kamlar@earthlink.net](mailto:Kamlar@earthlink.net). You can also visit the company's Web site at: <http://www.kamlar.com/index.htm>.

***Recycling  
Means  
Business!***

# MRR Southern



**W**ith increasing generation of construction and demolition debris in North Carolina, one local company – MRR Southern – has positioned itself to capture the value of important recyclables from this portion of the state’s waste stream. Partners Norbert Hector, Juan Carroll, D.H. Griffin Sr. and David Griffin Jr. pooled their vast experience in construction, wrecking and demolition to form a new recycling company. MRR Southern opened its first large-scale mixed construction and demolition debris processing facility in south Raleigh in 2000. In 2004, the company opened a second facility in High Point.



MRR Southern Raleigh employees hand-sort construction and demolition debris.



MRR High Point’s wood grinder produces fuel for industrial boilers.

Both recycling facilities are multi-million dollar investments in areas targeted for economic development and job creation. The Raleigh facility employs 18 people, while the newer and growing High Point facility employs 15. Materials are recovered from mixed construction and demolition debris using both manual and mechanical separation. Clean wood debris, concrete, brick, cardboard, drywall and soils/fines are separated and sold for a variety of end uses including compost, boiler fuel, road base, poultry bedding, recycled metal, paper and alternative daily landfill cover.

The Raleigh facility processes 85,000 tons of mixed construction and demolition debris per year and recovers about 50 percent of incoming materials. The High Point facility processes almost 74,500 tons per year.

**For more information about MRR Southern, contact Chris Roof at (919) 835-3655, e-mail [ctroof@dhgc.com](mailto:ctroof@dhgc.com).**

*Editorial Note: Sale of both facilities is pending to WCA Waste Corp. in March 2005. At the time of the announced sale, WCA Waste Corp. indicated it planned to establish a collections company that will operate in conjunction with the material recovery facilities.*

**MRR Southern  
Raleigh  
Wake County**

**Material Reclamation  
Recovery Southern  
High Point  
Guilford County**

***Recycling  
Means  
Business!***





# McGill-Leprechaun Environmental

**McGill-Leprechaun  
Environmental  
Delway  
Sampson County**

**McGill-Leprechaun  
Environmental  
Merry Oaks  
Chatham County**

***Recycling  
Means  
Business!***

**U**nder the leadership of M. Noel Lyons, McGill-Leprechaun operates two compost manufacturing plants in North Carolina and is one of the largest solid waste composting companies on the East Coast. The company was started in 1991 near Harrells to help manage the growing amount of animal waste generated by the poultry industry. Now, its facilities in

Chatham and Sampson Counties process more than 200,000 tons of compost per year. Feedstocks come from a large variety of generators, including industrial plants, municipalities and agricultural operations. The materials handled by McGill include industrial residuals, municipal biosolids, water treatment plant residuals, sheetrock, clean construction wood waste, commercial wood waste (pallets, shipping crates, etc.), food processing waste, grease trap waste, agricultural residuals, animal waste and source-separated organic solid waste (shredded paper, food scraps, waxed cardboard, etc.).

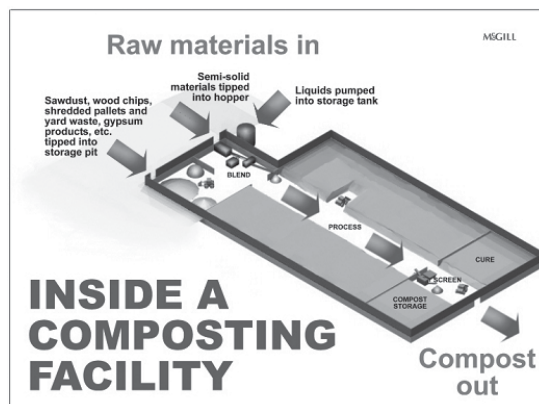


Diagram of McGill's composting operation.

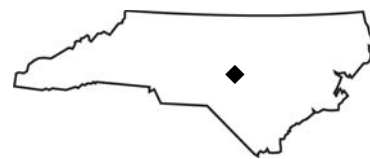


Finished compost is loaded into truck for bulk sale delivery.

With more than 50 employees and \$7 million in annual revenue, McGill-Leprechaun is poised to expand its operations to other parts of the state. It found large-scale markets for its finished compost, which is sold in bulk by the cubic yard to retail and wholesale customers throughout the Carolinas. McGill's products have been used effectively to eliminate the use of methyl bromide, an ozone-depleting chemical, in produce and crop production. The company's rapid growth and innovative technology earned McGill-Leprechaun the honor of runner-up for North Carolina Small Business of the Year in 2004.

For more information, contact Lynn Lucas at McGill (910) 532-2539, e-mail: [llucas@mcgillcompost.com](mailto:llucas@mcgillcompost.com), or visit the company's Web site at <http://www.mcgill-leprechaun.com>.

# Noble Oil Services Inc.



**N**oble Oil Services Inc. maintains an oil recovery and processing facility in Sanford. The company collects used oil and antifreeze from about 9,300 customers in North Carolina, South Carolina and Virginia. In 1997, Noble Oil recovered approximately six million gallons of used oil. Through the innovation of the president and CEO, James Noble, it now collects about 25 million gallons of used oil per year and produces various formulations of fuel oil that is sold to companies to supplement their energy needs. This product is used mostly in asphalt plants, paper mills and other industrial facilities. Noble Oil is currently working on the production of a premium fuel blend that can be used in more commercial applications. The company employs about 100 people and serves more than 60,000 collection locations each year.

Noble Oil also accepts used oil filters that are drained and crushed and usually yield about nine gallons of oil per 55-gallon drum of used filters. The collected filters are then transported by the truckload from Noble Oil to a facility that processes the oil filters, re-claims any additional oil and uses the resulting scrap metal to make manhole covers.

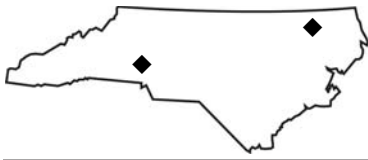
**Just two gallons  
of used oil can  
generate enough  
electricity to run  
the average  
household for  
almost 24 hours.**

Noble Oil is now expanding its services by offering an additional product – ASTM-certified recycled antifreeze. Noble Oil is promoting product stewardship by collecting used antifreeze for free with the purchase of its recycled antifreeze.

For more information about Noble Oil Services Inc., contact Jim Noble at (919) 774-8180 or [jnoble@nobleoil.com](mailto:jnoble@nobleoil.com), or visit its Web site at: <http://www.nobleoil.com>.

**Noble Oil Services Inc.  
Sanford  
Lee County**

***Recycling  
Means  
Business!***



# Nucor Corporation

**Nucor Corporation**  
**Charlotte**  
**Mecklenburg County**

**Nucor Corporation**  
**Cofield**  
**Hertford County**

**N**ucor Corporation is a crown jewel in North Carolina's recycling economy. Nucor is headquartered in Charlotte, and has one of its newest mills in Hertford County, where it produces steel plates for the manufacturing of ships, barges, rail cars and other industrial products.

Nucor is both the largest steelmaker in the United States and the largest recycler in the nation, consuming more than 14 million tons of scrap each year to make everything from steel joists, steel deck, bars, beams, girders and fasteners. Nucor is renowned for its lean corporate structure and for its profitability. The company continues to grow – its \$780 million net consolidated earnings for the first nine months of 2004 set a corporate record. The company averages more than \$6.2 billion in sales annually.



Aerial view of Nucor's Hertford County recycled steel manufacturing plant.

**Almost 69 million tons of steel scrap was recycled in the United States in 2003.**

**- Steel Recycling Institute**

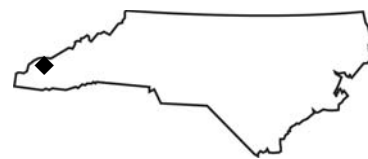


The company employs 9,900 people, including approximately 390 at its Hertford County mill. Most of its production is done at "minimills" using electric arc furnaces designed specifically to consume scrap. It is dependent on the recovery of steel to feed plants in 14 states.

To learn more about Nucor, call Steve Rowlan at (704) 367-8685, or visit its Web site at <http://www.nucor.com>.

**Recycling  
Means  
Business!**

# Oaks Unlimited



**O**aks Unlimited has more than 40 years' experience producing high quality hardwood lumber for both domestic and overseas markets. In 2004, Oaks Unlimited president, Joe Pryor, expanded operations to produce a hardwood flooring product made from recycled pallet deck boards.

Located in Waynesville, Oaks Unlimited has worked closely with Waste Reduction Partners in Asheville to develop the flooring production process. Additional equipment purchases and a required building expansion were partially financed through grant funding from the N.C. Department of Environment and Natural Resources.

The "start-up" component of this new venture for Oaks Unlimited has been successful. From June to December 2004, Oaks Unlimited created one full-time position, and requires three additional part-time employees to meet the initial production schedule. As it ramps up to meet demand, production could be doubled using existing equipment and adding more employees.



Dismantled pallets are planed into deck boards.



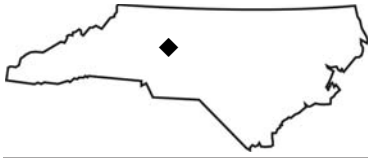
Owner Joe Pryor displays the recycled pallet boards to be used for the hardwood flooring finished product.  
(Photo courtesy of *The Mountainer*.)

Oaks Unlimited has used its experience in the production, marketing and distribution of high-quality lumber to create a business that is designed to fill a niche in the hardwood flooring market. The final product is a three-eighths inches thick, solid hardwood flooring that is pre-finished and ready for installation. The rustic flooring is marketed as a "green" product, and more than 250 tons of pallet deck boards are recycled annually in its production. This translates into 120,000 square feet per year of flooring. Increases in waste diversion rates are directly proportional to expanding market demand.

For more information about Oaks Unlimited, contact Joe Pryor at (828) 926-1621, e-mail: [jpryor@oaksunlimited.com](mailto:jpryor@oaksunlimited.com).

**Oaks Unlimited  
Waynesville  
Haywood County**

***Recycling  
Means  
Business!***



# Pallet Resource of N.C. Inc.

**Pallet Resource of  
N.C. Inc.  
Lexington  
Davidson County**

**N**estled on a 22-acre site in the northern Davidson County countryside near Lexington, Pallet Resource of N.C. Inc. takes pride in being a full-service provider of environmentally-responsible products for any wooden material-handling need. PRNC currently employs 110 people - 35 of whom are directly associated with recycling - and recovers more than one million pallets per year, or 20,000 tons that would otherwise have required disposal. The company incorporates the environmental philosophy of "Reuse, Repair, Recycle and Renew" into all aspects of its operation.



Davidson County's PRNC facility.

Since 1985, under the leadership of Neal Grimes, PRNC services the needs of industry throughout central and western North Carolina with newly manufactured pallets, used pallets and reconditioned pallets, in addition to providing a pallet disposal and removal service. To PRNC, however, "disposal" means grinding pallets into a variety of useable wood fiber products. PRNC's two grinders, with the assistance of large magnets that remove nails and other metal fragments, produce uniformly sized, clean wood fiber that is transformed into products ranging from Designer Wood, the company's recycled wood fiber mulch, to Kid Cushion, a loose-fill organic playground surface.

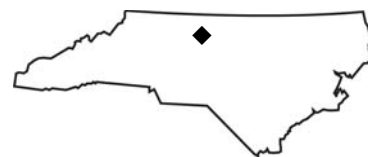
For more information about PRNC, contact Neal Grimes at (336) 731-8338, e-mail: [nealgrimes@prnc.com](mailto:nealgrimes@prnc.com).

***Recycling  
Means  
Business!***

**The recycled pallet industry in  
North Carolina employs more than  
3,300 people and produces 36.5  
million pallets annually.**

***-N.C. State University Pallet Recycling  
Study, May 2004.***





# Plastics Revolutions

**R**eidsville is home to several plastics recycling companies, making the town the virtual "Plastics Recycling Capital of North Carolina." John Hagan is proud to be owner and president of Plastics Revolutions, one of the recycling companies operating successfully there. The company is a processor of post-industrial and post-consumer plastic scrap.



A Plastics Revolutions employee readies the finished product for shipping.

Plastics Revolutions employs 22 people, operates 24 hours a day and processes 2.5 million pounds of plastics each month. The company recycles a variety of discard plastic materials including bottles, pallets, bins, films, floor sweep regrind, pellets, parts, spurs and runners.

Plastics are processed into small flakes. The flakes are sent through a washing process that removes labels, glue, non-compatible plastics, dirt and metal. Cleaned flakes are dried and packaged for sale to manufacturers of plastic products, such as drainage pipe, nursery containers and plastic sheeting.



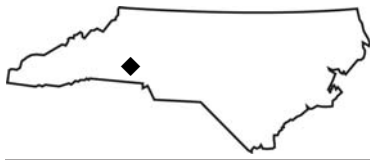
Plastics Revolutions manufacturers "Safety Stops" from recycled plastic resins.

Plastics Revolutions also manufactures "Safety Stops," a replacement for concrete parking stops. Safety Stops are made of recycled plastic and can be recycled at the end of their lifespan. Safety Stops are also cost-effective as their lightweight construction cuts shipping costs and single-person installation reduces labor expenses.

Contact John Hagan at (336) 349-2800 for further information about Plastics Revolutions. Also visit the Plastics Revolutions Web site at: <http://www.plasticrevolutions.com>.

**Plastics Revolutions  
Reidsville  
Rockingham County**

***Recycling  
Means  
Business!***



# PreServe Business Systems

**PreServe Business Systems**  
**Gastonia**  
**Gaston County**

**P**reServe Business Systems diverts an assortment of plastic wastes from landfills by collecting them from a number of North Carolina businesses. It processes the collected materials and markets them to plastic molders and extruders for remanufacturing in North Carolina, the eastern half of the United States and internationally. PreServe's



PreServe Business Systems President Chuck Cooper.

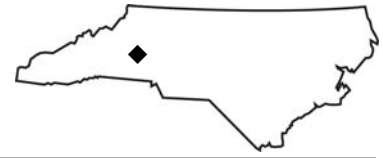
president, Chuck Cooper, has 14 years' experience managing waste plastics in all the commodity grades and most engineered resins. He has established two successful plastic waste processing operations with state-licensed sheltered workshop partners that provide vocational training and jobs to individuals with disabilities and other special needs.

Recently, PreServe completed a major equipment upgrade at its Gaston Skills Inc. operation, partially financed through grant funding from the N.C. Department of Environment and Natural Resources. The upgrade will enable the Gastonia facility to process oversized parts such as plastic barrels, pallets and purges from a wide variety of North Carolina businesses such as the Dart Container Corporation plant in Randleman. "PreServe takes both our HIPS and PET scrap purgings and regrind," said Stephen P. Ridgill, plant manager, Dart Container Corporation of N.C. "I look forward to many years of continuing our strong business relationship with the company."

PreServe's Gastonia facility is in its second year of operation and employs between five to 10 Gaston Skills clients, depending on the operations' processing needs. The operation will process approximately 800 tons of plastic scrap this year collected from regional businesses in a wide variety of industries including telecommunications, automotive parts, wire and cable, textiles and furniture.

For more information about PreServe, contact Chuck Cooper at (919) 732-9253, e-mail: [preserve@sprynet.com](mailto:preserve@sprynet.com).

***Recycling  
Means  
Business!***



# Profile Products

**P**rofile Products is a name that has become synonymous with soil amendments and erosion control. This company's Conwed Fibers brand was a pioneer in the mulch industry in 1965 as it introduced its line of wood-based hydraulic mulches manufactured at its facility in Conover.

The Conover facility opened its doors in the mid-1960s under the name Conwed Fibers and was purchased in 2001 by Profile Products of Buffalo Grove, Ill. In addition to hydraulic mulches, Profile Products manufactures a number of other mulch and erosion control products such as Flexterra® Flexible Growth Medium™, Seed Aide® Mulching Granules, Futerra® Erosion Control Blanket and more. Currently, the company is testing new products for future expansion of its product line.



Profile Products' Hydro Mulch line is used for a variety of turf applications, promotes faster germination and minimizes sediment and water runoff.

According to Profile's operations manager, Tim Andrews, the company uses about 70,000 tons of waste wood from local industries every year to manufacture hydraulic mulch, and as much as 10,000 tons of discarded paper at its Conover facility. All this is material that would have ended up in landfills, were it not for Profile Products.

Andrews notes that higher transportation costs due to fuel price increases are the "fly in the ointment" in Profile's optimistic business outlook. However, he is quick to point out that the company is thriving and anticipating opportunities for growth in the near future.

The company provides 80 jobs for workers in Catawba County, an area that has been hit particularly hard by furniture plant closings in recent years.

Those interested in finding out more about Profile Products should call Tim Andrews at (828) 327-4165, extension 822, or e-mail [tandrews@profileproducts.com](mailto:tandrews@profileproducts.com). You may logon to <http://www.profileproducts.com> to visit the Profile Products Web site.

**Profile Products  
Conover  
Catawba County**

***Recycling  
Means  
Business!***



# Recycle America Alliance

**Recycle America  
Alliance  
Raleigh  
Wake County**

**Recycle America  
Alliance  
Winston-Salem  
Forsyth County**

***Recycling  
Means  
Business!***

If you toss your aluminum can into a recycling bin, it may end up at a Recycle America Alliance plant. As the name suggests, the company operates a large network of recycling facilities across the United States. With facilities in Raleigh and Winston-Salem, Recycle America Alliance currently runs more than 80 recycling plants and provides marketing services for more than 140 locations in the United States and Canada.

Recycle America Alliance was formed as a subsidiary of Waste Management Inc. in January 2003. By combining assets and operations with other key domestic recycling processors and end users, Alliance carries a great deal of marketing clout.



Raleigh RAA employees perform a final manual sort after plastic bottles exit the company's highly automated resin sensors.

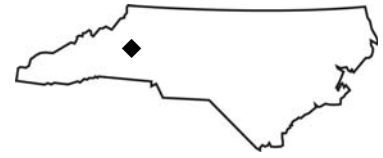
Recycle America Alliance uses single-stream processing technology to automate the separation of virtually all types of recyclable materials. State-of-the-art optical-sorting technologies are used in the Raleigh facility to quickly and affordably process commingled materials. Co-located in Raleigh is a facility that separates

different colored glass. Likewise, the Raleigh operation employs advanced plastics-processing technologies that enable the company to accept separated or mixed plastics. The unique ability to offer this "no-sort" recycling option allows communities and business to recycle mixed plastic bottles more cost-effectively.

The Raleigh facility employs 145 workers and processes more than 160,000 tons of commingled recyclables each year. While less automated, the Winston-Salem facility has 20 employees that process approximately 36,000 tons of recyclables each year.

For more information about the Raleigh RAA location, contact Kerry Martin at (919) 829-1311 or [kfmartin@recycleamerica.com](mailto:kfmartin@recycleamerica.com). For more information about the Winston-Salem RAA location, contact Terry Feeney at (336) 631-9439 or [tfeeney@wm.com](mailto:tfeeney@wm.com). You can also visit the company's Web site at <http://www.recycleamericaalliance.com>.

# Roll-Tech LLC



**R**oll-Tech LLC is a unique recycling company in Hickory that manufactures solid rubber tires and wheels using recycled crumb rubber from scrap automobile and truck tires. The company began as a division of Roll-Gom and later, Guitel, a French manufacturer of wheels and casters with solid rubber tires.



Hickory's Roll-Tech Inc. transforms scrap tires collected from across N.C. into rubber wheels and casters.


Roll-Tech was established in 1995 as the result of collaboration between state agencies such as the Recycling Business Assistance Center and the N.C. Department of Commerce, along with the city of Hickory and other local and regional agencies.

The company employs 23 people and manufactures a variety of rubber wheels and casters for uses such as safety wheels for garbage containers, central locked casters for larger garbage containers, wheels for high-pressure cleaners and handling equipment and other heavy-duty applications. Using recovered crumb

rubber, the company produces an innovative solid cushion tire that is resilient, highly impact resistant and puncture proof.

According to owner Patrice Bertrand, Roll-Tech has processed the equivalent of more than 20,250 tons of scrap tires since beginning operations in 1995.

For more information about the company, contact Patrice Bertrand at (828) 431-4515 or [rolltech@rolltech.net](mailto:rolltech@rolltech.net). Visit the Roll-Tech LLC Web site at: <http://www.rolltech.net>.

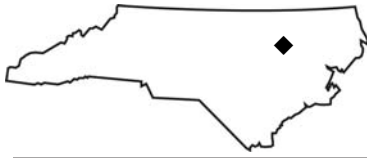


**According to the N.C. Division of Waste Management, 9.6 million tires were managed by counties in 2003.**

**Roll-Tech Inc.  
Hickory  
Catawba County**

***Recycling  
Means  
Business!***





# Scotland Neck Heart Pine Inc.

**Scotland Neck Heart Pine Inc.**  
**Tarboro**  
**Edgecombe County**

**F**rom a young age, Hodge Kitchin loved working with his hands, especially woodworking. The heartwood of the Southern Yellow Longleaf Pine that Kitchin observed through various woodworking projects captured his fascination and interest. Interest grew to a personal passion and in 2003, Hodge, along with other craftsmen, formed Scotland Neck Heart Pine Inc.



A specialty saw helps refurbish heart pine lumber collected from antique structures across North Carolina slated for demolition.

Located in Halifax County, Scotland Neck Heart Pine Inc. provides floorings, stair parts, moldings, doors, mantels and custom architectural millwork from reclaimed antique and old growth heart pine. These strong, long and straight timbers yielded excellent decay-resistant beams, which had been used as framing and decking for our young nation's factories and warehouses. In fact, these massive beams were used almost exclusively until the once-abundant supply was nearly exhausted near the end of the 1900s. Its reclaimed antique heart pine is recycled from these large old structures generally built prior to 1900. Scotland Neck also provides deconstruction and demolition of properties which allows them access and control of the old timbers to maintain quality handling.



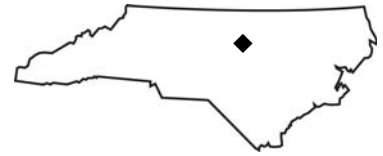
Scotland Neck transforms reclaimed heart pine into custom architectural products.

In the spring of 2004, the N.C. Department of Environment and Natural Resources awarded Scotland Neck a grant to purchase a specialty saw to be used to increase production of its reclaimed lumber. In 2004, Scotland Neck Heart Pine estimates that it has diverted 500 tons or nearly 220,000 cubic yards of waste from entering landfills.

For more information about Scotland Neck Heart Pine, contact Walton Burgyn, vice president, at (800) 826-8117, or visit the company's Web site: <http://www.snheartpine.com>.

***Recycling  
Means  
Business!***

# Shimar Recycling Inc.



**S**ince August 1997, Shimar Recycling Inc. has provided recycling services for offices and other commercial businesses in the Raleigh-Durham area. Meredith Marley, owner of Shimar Recycling, has worked to build the company into a small-business success.

When the Durham-based collector-processor started up, it operated with two employees from the small corner of a parking lot leased from a paper stock dealer. With the help of a Small Business Association loan through Self-Help Credit Union, Shimar purchased a 22,500 square foot building in 2001. The new facility provides much more than shelter from the elements – it fulfills the long-held dream of expansion. Since purchasing the building, Shimar has more than tripled its capacity. Now it can look to expand collections, increase processing and make its overall operations more efficient.



Paper for processing is unloaded from the collection truck into gaylord boxes.



Shimar's collection truck is used to serve businesses all over the Triangle.

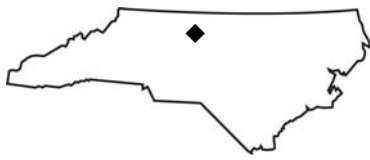
Shimar now employs seven people and has recently purchased larger capacity baling equipment, partially financed through grant funding from the N.C. Department of Environment and Natural Resources, making full use of its new facility. The company currently collects and processes 75 tons of fiber plus 20 tons of glass and plastic bottles, and metal cans per month.

Shimar's mission is to provide a professional and affordable recycling collection service for businesses and institutions in the Triangle, with an emphasis on customer satisfaction. To do so, the company will act as its clients' recycling coordinator to help them optimize their recycling systems and maximize the potential benefits of Shimar's services including cost savings and conservation of natural resources.

For more information about Shimar Recycling Inc. contact Meredith Marley at (919) 680-6262 or [meredith@shimar.com](mailto:meredith@shimar.com). You can also visit the company's Web site at: <http://www.shimar.com>.

**Shimar Recycling Inc.**  
**Durham**  
**Durham County**

***Recycling  
Means  
Business!***



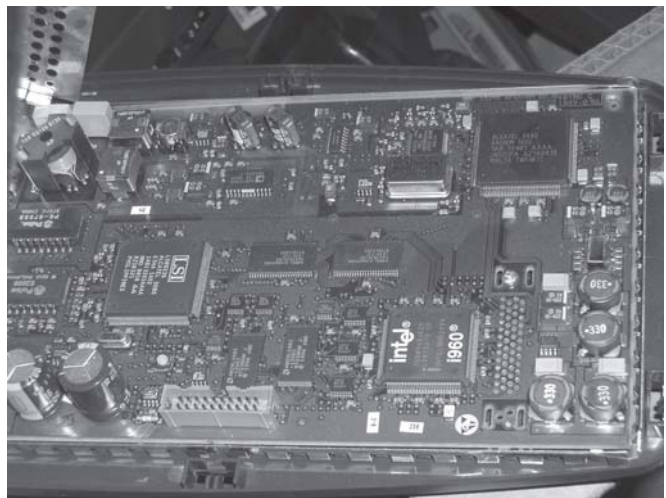
# Synergy Recycling LLC

**Synergy Recycling LLC**  
**Mayodan**  
**Rockingham County**

**S**ynergy Recycling LLC began operations in July 2000 in response to the growing need for proper disposal of electronic products and other materials. Joe Clayton manages operations and applies his experience in all phases of recyclable material processing to the company's continued growth.

Synergy Recycling is based in Mayodan, yet it handles customer needs throughout the eastern United States. Synergy Recycling specializes in providing single-source service in removal of excess and obsolete equipment including mainframe computers, PCs and work stations, monitors, keyboards, printers, circuit boards, telephone equipment, switches, circuit breakers, voltage regulators and other electrical equipment, connectors, cables and wiring.

In 2004, to increase diversion and to provide needed service in the business community, Synergy Recycling purchased a 26-foot box truck with a lift gate to assist with smaller scale "milk-run" type collections. This equipment was partially financed through grant funding from the N.C. Department of Environment and Natural Resources. Synergy Recycling currently employs six people, and handles a wide variety of material from commercial and municipal customers.



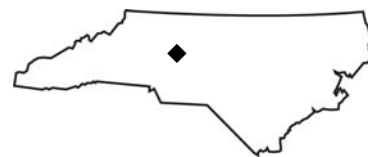
Interior computer parts are segregated from dismantled computers and recycled for high-value heavy metals.

It collects and processes more than 1,000 tons per year of electronics and other equipment – mostly through asset recovery contracts.

For more information about Synergy Recycling, contact Joe Clayton at (336) 548-7014 or [jclayton@synergyrecycling.com](mailto:jclayton@synergyrecycling.com). You can also visit the company's Web site at: <http://www.synergyrecycling.com>.

***Recycling  
Means  
Business!***

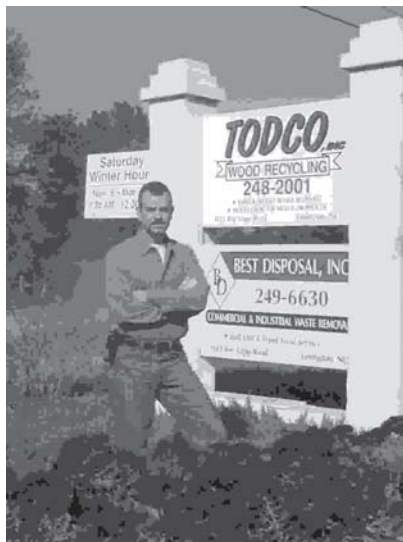
# TODCO



In 1992, Davidson County established a policy discouraging the disposal of wood at its landfill. With a heavy furniture manufacturing base, the county saw the policy as a way to prolong the life of its landfill. But where was the wood to go? In stepped TODCO.

Owner Todd Warfford set up a wood-waste grinding yard less than a mile from the disposal facility's scale house. TODCO began receiving wood and yard waste materials to be ground into mulch and boiler fuel.

Twelve years later, TODCO is processing 16,000 tons of material annually, with capacity to expand to around 20,000 tons. Its chief customers are manufacturers - furniture and other wood-based industries in the Davidson County area. A hauling company Warfford started alongside his wood grinding business brings in some of TODCO's material. TODCO also receives yard waste from municipalities, helping them comply with the state disposal ban on that material.



Owner Todd Warfford has operated TODCO since 1992.

TODCO's products are mostly boiler fuel, which it sends to large industrial energy users, and different kinds of mulch, including some colorized products. It also supplies bulking agent to a local biosolids composting facility. TODCO is also expanding into the production of bark mulch and nursery mix.

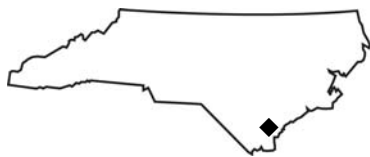
The company employs nine people. Two of its biggest challenges are the costs for generators to bring heavy wood waste material over long distances to TODCO's facility and competition against cheap disposal options. But it continues to grow the mulch side of the business and to diversify its products, which will make it a strong, viable recycler for many years to come.

To learn more about TODCO, call Todd Warfford at (336) 248-2001.

**TODCO**  
**Lexington**  
**Davidson County**

***Recycling  
Means  
Business!***





# Total Maintenance

**Total Maintenance  
Wilmington  
New Hanover County**

In 2001, Joe Van Eron decided to do something about the large amount of wood being collected and sent to landfills as a result of his Wilmington-based construction site clean-up business, Total Maintenance. His first step was to purchase a tub grinder to market mulch and boiler fuel products. The purchase of that equipment was partially financed through grant funding from the N.C. Department of Environment and Natural Resources.



Owner Joe VanEron with the tubgrinder that chips wood debris into mulch and boiler fuel products.

Later, Van Eron purchased a colorizing machine that produces red, brown and black mulch. This led to the establishment of his second company, The Mulch Master of Wilmington. Currently, 15 employees work at Total Maintenance and The Mulch Master collecting, sorting, grinding and

colorizing the recovered wood waste. During the first year of operation, approximately 2,250 tons of material was recovered. Today, that amount has increased to 5,000 tons and Van Eron anticipates continued growth in the future. In fact, Van Eron expects to begin recycling approximately 40 tons per week of gypsum drywall in the near future.



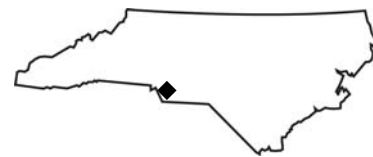
The Mulch Master produces colored mulch from wood debris.

**Recycling  
Means  
Business!**

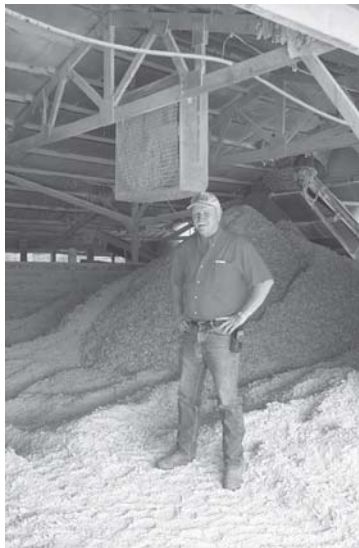
For more information about Total Maintenance and The Mulch Master of Wilmington, contact Joe Van Eron at (910) 395-2944, e-mail: [JVAN10957@aol.com](mailto:JVAN10957@aol.com).



# Union Gypsum



**W**hen Steve Davis began his Union Gypsum recycling business near Marshville in 1999, he sold ground gypsum in bulk at a discount to local farmers for use as a soil amendment. His product replaced the virgin agricultural gypsum farmers had been purchasing at a premium price. Today, he produces a high value-added product in 40-pound bags called “Funky Chicken.” The new product is a magical mixture of poultry litter, recycled gypsum drywall and wood ash that is blended and dried prior to going through a long curing process. Davis also supplies ground recycled gypsum drywall to two large poultry producers as bedding for their poultry houses. The patented gypsum and poultry litter product, which is gathered from the poultry houses at the end of the season, is sold to area farmers for use as a nutrient-rich soil amendment completing the cycle.



Owner Steve Davis stands on a pile of ground recycled drywall.



Union Gypsum's premium organic compost, Funky Chicken, is sold in 40-pound bags.

Union Gypsum's major source of recycled gypsum drywall feedstock is independent clean-up companies that remove gypsum drywall from new construction sites. Davis is in the process of cultivating a relationship with a potentially large source of gypsum drywall – the North Carolina manufactured housing industry. Currently, six people work at Union Gypsum, where they contribute to the recycling of about 5,000 tons a year of gypsum drywall and 50,000 tons a year of poultry litter.

For more information about Union Gypsum, contact Steve Davis at (704) 624-2077.

**Approximately 350,000 tons of drywall waste is generated in North Carolina annually.**

**Union Gypsum  
Marshville  
Union County**

***Recycling  
Means  
Business!***



# Wagram Paper Stock

**Wagram Paper Stock**  
**Wagram**  
**Scotland County**

**E**stablished in 1979, Wagram Paper Stock is an independent collector and processor of recyclables located in Wagram, just north of Laurinburg. Located in a rural area of the state, Wagram Paper Stock's market focus is on the collection and baling of corrugated containers and other fiber material from various industrial and commercial customers in the region. It is a contract supplier of recovered fiber to Sonoco Products, an international paper and packaging company headquartered in nearby Hartsville, S.C.

President Tommie Currie has expanded the range of material the company collects from fiber grades only to aluminum and plastic containers recovered through curbside collection from local municipalities. This area of growth will provide Wagram Paper Stock the ability to support rural communities in the region that may lack the volume or have the infrastructure required to get their recyclables to an end market. Wagram Paper Stock has the ability to provide a consolidation point to assist small rural communities in this region with their recycling programs.

**160 paper mills in the United States, including many located in the Southeast, exclusively use recovered fiber.**

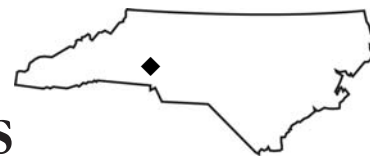
Material recovery facilities like Wagram Paper Stock can provide residential and commercial collection programs with an advantage in getting their material to market. Municipalities, as well as private haulers, can usually gain collection efficiencies and increase diversion in the regions where access to such facilities is available. The continued development of the infrastructure for primary processing represented by forward-thinking companies like Wagram Paper Stock can greatly improve the economic effect of recycling in the state.

Wagram Paper Stock is locally owned and operated, employs 17 people and collects 14,400 tons per year of recyclable materials.

For more information about Wagram Paperstock, contact Tommie Currie at (910) 369-2211.

***Recycling  
Means  
Business!***

# Wallace Farms Soil Products



**H**untersville's Wallace Farms Soil Products began operation in the early 1940s as one of the largest dairy farms in North Carolina. In 1990, the family-owned and operated business decided to diversify by leasing out its dairy facilities, and creating a soil processing and composting operation.



Wallace Farms has been making high-quality compost since 1990.

Because of increasing environmental concerns and regulations governing animal waste, the Wallace family set out to develop an environmentally friendly method of managing the dairy manure. Aerobic composting proved to be the logical solution, originating one of the few "real" composted cow manures available today. Wallace Farm Soil Products has since developed a high-quality line of soil and compost products, including blended topsoil, composted cow manure, compost-plus, potting soil and play sand.

With 22 employees, Wallace Farm Soil Products receives approximately 60,000 tons of organic waste a year and is one of the largest compost and

packaging facilities in the state. The farm reaches out to other farms and industries to divert organic waste materials such as animal manures, food waste, wood waste and yard waste from landfills.

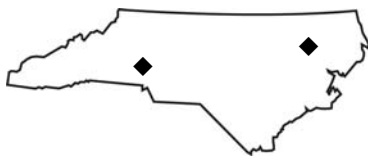


At Wallace Farms, rows of organic debris are turned by a windrow turner to produce high-quality compost.

For more information, contact Eric Wallace at (704) 875-2975, or visit the company's Web site at <http://www.wallacefarmproducts.com>.

**Wallace Farms Soil Products**  
**Huntersville**  
**Mecklenburg County**

***Recycling Means Business!***



# Weyerhaeuser Company

**Weyerhaeuser Company**  
**Plymouth**  
**Washington County**

**Weyerhaeuser Company**  
**Charlotte**  
**Mecklenburg County**

**W**eyerhaeuser Company is an international forest products company with annual sales of \$19.9 billion. Weyerhaeuser was founded in 1900 and currently employs about 55,000 people in 18 countries. Its diverse business includes nearly every aspect of the forest products industry, from growing and harvesting trees to producing pulp, paper, packaging and building products.



Here in North Carolina, Weyerhaeuser has established a range of facilities that includes nearly all aspects of its forest product operations. These facilities include pulp and paper mills in Plymouth and New Bern, lumber mills and managed forests in various parts of the state, and box plants and a fiber recovery and recycling facility in Charlotte.

***“The Plymouth mill employs just under 2,000 people, and in addition to making the 100 percent recycled content linerboard, also produces 1,300 tons per day of fine printing and writing papers.”***

The Charlotte recovery facility employs 16 people and processes 84,000 tons per year of mostly fiber material. It also brokers an additional 18,000 tons of baled material that does not need processing. A majority of the cardboard that passes through this facility ends up as feedstock for the Plymouth containerboard plant.

The Plymouth facility uses 100 percent recycled fiber from old corrugated containers to produce 930 tons per day of linerboard (the outside portion of corrugated containers). The Plymouth mill employs just under 2,000 people, and in addition to making the 100 percent recycled content linerboard, also produces 1,300 tons per day of fine printing and writing papers.

For more information about Weyerhaeuser, contact Ginny Santorine at (804) 739-6736, e-mail: [ginny.santorine@weyerhaeuser.com](mailto:ginny.santorine@weyerhaeuser.com). You can also visit the company's Web site at: <http://www.weyerhaeuser.com>.

***Recycling  
Means  
Business!***

# N.C. Recycling Business Assistance Providers

---

**A** number of organizations provide a wide variety of technical and business development assistance to North Carolina-based recycling businesses. Some provide assistance specifically to members of the recycling industry, while others provide general business development assistance to a wider range of clients. These organizations include:

## *Recycling-Specific Service Providers*

### **N.C. Recycling Business Assistance Center**

The N.C. Recycling Business Assistance Center is a partnership of the North Carolina Department of Environment and Natural Resources' Division of Pollution Prevention and Environmental Assistance and the North Carolina Department of Commerce. Its mission is to promote environmentally sound economic development through the reuse and remanufacture of recyclable materials. To achieve this objective, RBAC:



- Provides technical assistance to recycling businesses with sourcing, processing and remanufacturing secondary materials and marketing their end products.
- Provides business development assistance by identifying funding sources, participates in the N.C. Recycling Business Loan Fund and funding demonstration projects.
- Develops policies that address the barriers to collecting, processing, remanufacturing and reusing secondary materials.
- Promotes to potential customers the need to purchase products with recycled content.
- Promotes the need to develop, transfer and apply technologies that will increase the use of recycled materials.
- Promotes partnerships among government and industry to stimulate and facilitate the recovery and reuse of secondary materials.
- Fosters the development of a supply infrastructure that is capable of providing industry with clean, readily usable and available raw materials.
- Promotes waste prevention and reuse within both the public and private sectors to reduce business costs and the consumption of virgin materials.

For more information about RBAC, contact Matt Ewadinger, RBAC manager, at (919) 715-6504, or [matt.ewadinger@ncmail.net](mailto:matt.ewadinger@ncmail.net), or visit the RBAC Web site at <http://www.p2pays.org/rbac>.

***Recycling  
Means  
Business!***



## ***Recycling Means Business!***

### **Self-Help Credit Union**

Self-Help, North Carolina's community development banking group, administers the N.C. Recycling Business Loan Fund. The loan fund nurtures fledgling businesses until they become bankable and graduate to full-service private sector financing.



*Why is there a dedicated Recycling Business Loan Fund?* Banks are sometime reluctant to fund start-ups or companies in untested sectors. While venture capital is designed to take on higher levels of risk, those firms often want only very large deals and those with some form of management participation. The Recycling Business Loan Fund is designed to fill the gap between bank loans and venture capital.

*What types of loans are available?* The loans are structured as market-rate debt, and can be used for working capital, inventory, equipment and real estate purchases. Initial interest-only periods may be available, where appropriate. The staff at Self-Help is well skilled at tapping existing Small Business Administration funding pools and guarantee programs to help with the approval of riskier loans. Self-Help often uses SBA 504 and 7(A) guarantees in its underwriting.

Self-Help has had significant experience lending to the recycling business community. In the past 12 years, Self-Help has lent more than \$3 million to



20 recycling companies in North Carolina, including loans to companies that provide a wide variety of recycling services. Those services range from collection and processing to end-use products of diverse materials such as paper, scrap metal, construction and demolition debris, plastics and wood.

Loan deals have ranged from \$10,000 to more than \$1 million (with an average loan size of \$75,000) and have leveraged an additional \$2 million.

For more information about the Recycling Business Loan Fund, contact Fred Broadwell, environmental finance coordinator at (919) 956-4490, or [fred@self-help.org](mailto:fred@self-help.org), or visit the Self-Help Web site at <http://www.self-help.org>.

---

### **Carolina Recycling Association**

The Carolina Recycling Association is one of the largest state-based recycling associations in the United States, serving North and South Carolina since 1989. CRA represents more than 400 members (individuals, small businesses, multinational corporations, state government agencies and local governments) who are committed to reducing waste, promoting recycling and buying recycled.



Its mission is to conserve resources by advancing waste reduction and recycling throughout the Carolinas. CRA seeks to accomplish this mission in three ways:

- **Networking:** create ample opportunities for members to make valuable contacts with colleagues at events and through membership resources.
- **Educating:** sponsor workshops, training courses and tours, host the largest regional recycling conference in the country and produce informative publications.
- **Advocating:** support legislation that positively affects solid waste policies and advances states' waste reduction and recycling.

CRA is governed by a 13-member board of directors and has a staff of one part-time and two full-time employees. For more information about CRA contact Kerry Krumsiek, executive director, at (919) 545-9050, or [kerryk@cra-recycle.org](mailto:kerryk@cra-recycle.org), or visit the CRA Web site at <http://www.cra-recycle.org>.

### **N.C. Department of Transportation's Recycled Products and Solid Waste Utilization Task Force**

The N.C. Department of Transportation established the Recycled Products and Solid Waste Utilization Task Force in September 1992 to encourage the development of the state's recycling industry by promoting the successful development of markets for recycled goods. The mission of the task force is to provide leadership and expertise in the selection and recommended use of recycled materials to reduce waste and preserve natural resources. This mission is accomplished through research, demonstration projects, bid procedures and specifications that encourage contractors to develop and utilize recycled products.



***Recycling  
Means  
Business!***

## ***Recycling Means Business!***

Since its inception, the task force has been instrumental in including a wide variety of recycled materials in DOT projects. Those materials include scrap tires, fly ash, processed silica, plastics, land clearing and demolition debris, yard waste, poultry litter, municipal sludges, recycled glass, shingles, aluminum, recycled concrete and recycled asphalt.

For more information about the task force, contact DOT's Division of Highways at (919) 250-4128, or visit the Web site at <http://www.doh.dot.state.nc.us/sitemap.html> and click on "Recycling Information."

### ***General Business Assistance Providers***

#### **N.C. Department of Commerce**

The Department of Commerce, the state's leading agency for economic, community and workforce development, has been a cooperative partner since the inception of RBAC. A RBAC staff person has worked with the DOC office as a RBAC/DOC liaison since 1995.



The mission of the Department of Commerce is to improve the economic well-being and quality of life for all North Carolinians. The department's strategic plan focuses on three goals to further this mission:

- Keeping North Carolina competitive for high-value, technologically competitive industries and companies by actively recruiting and encouraging their expansion in the state.
- Increasing economic opportunities for North Carolina in a global economy by ensuring that North Carolina is recognized throughout the world as a highly attractive location for growing businesses, for the high quality of its products and for its appeal as a location for tourism, film and sports development.
- Improving economic opportunities for all North Carolinians through programs targeted to people and places not currently enjoying economic prosperity.

For more information about DOC and DOC/RBAC connection contact Matt Ewadinger at (919) 715-6504, or [matt.ewadinger@ncmail.net](mailto:matt.ewadinger@ncmail.net). Visit the DOC Web site at <http://www.commerce.state.nc.us>.



### **N.C. Small Business & Technology Development Center**

The Small Business & Technology Development Center's mission is to support the growth and development

of North Carolina's economy by encouraging entrepreneurship, assisting in the creation and expansion of small businesses and facilitating technology development and transfer for small businesses. As part of the RBAC/SBTDC partnership, SBTDC offers scholarships to North Carolina-based recycling companies for two of its highly acclaimed small business training programs. Scholarships for SBTDC's "NxLevel Entrepreneurial Training Program" and "SymmeTree Change Management Course" are held at various statewide locations throughout the year. Contact Dan Blankenship at (919) 715-7272 or (800) 258-0862, or [dblankenship@sbtcd.org](mailto:dblankenship@sbtcd.org) for more information. Visit SBTDC's Web site at <http://www.sbtcd.org>.

### **N.C. Department of Environment and Natural Resources' Customer Service Center**

The Customer Service Center for the Department of Environment and Natural Resources is a single source of information for all of the Department's programs. Through its "1-STOP" permit assistance program, the CSC helps customers determine what environmental permits



they need for a particular project as well as permit decision timelines. The CSC's "Small Business Ombudsman/Assistance Program" helps small businesses understand and comply with environmental requirements and resolve environmental problems. The 10-person staff is headquartered in Raleigh with express permitting and 1-STOP permit offices in Mooresville, Washington and Wilmington. For more information about CSC contact Edythe McKinney, director/small business ombudsman at (877) 623-6748, or [edythe.mckinney@ncmail.net](mailto:edythe.mckinney@ncmail.net), or visit the CSC Web site at <http://www.envhelp.org>.

### **Waste Reduction Partners**

Waste Reduction Partners, a team of highly-experienced

volunteer engineers, architects and scientists, provides western N.C. businesses and industries with no-cost waste and energy reduction assessments and technical assistance. The WRP's mission is to work for a sustainable

**Waste Reduction Partners** 

***Recycling  
Means  
Business!***

## ***Recycling Means Business!***

economy, healthy environment, and a better quality of life by helping businesses, industries, institutions and government entities in the western part of the state reduce waste and utilize natural resources efficiently.

As part of its recycling business development efforts, WRP is leading a public/private partnership to demonstrate and commercialize a process to make wood flooring from waste pallets. The project goal is to produce 50,000 square feet of high-quality flooring in the first two years. In North Carolina more than 300,000 tons of pallet waste are sent to landfills annually.

WRP is administered by the Land-of-Sky Regional Council and works in special partnership with the North Carolina Division of Pollution Prevention and Environmental Assistance. Other partners include the Regional Water Authority of Asheville, Buncombe and Henderson, the Environmental Protection Agency and the USDA's Rural Utility Services. For more information about WRP, contact Terry Albrecht, program director, at (828) 251-6622, or [wrp@landofsky.org](mailto:wrp@landofsky.org), or visit the WRP Web site at <http://www.landofsky.org/wrp>.

### **SJF Ventures**

SJF Ventures is a venture capital fund that finances and assists expansion stage companies in the clean technologies, business services and consumer products

sectors. These companies achieve rapid growth and a competitive advantage through proprietary business models, quality management, high-performing entry-level workforces and environmental efficiencies. SJF Ventures provides equity financing from \$500,000 to \$5 million, solo or in syndicates, to companies with annual sales of \$500,000 to \$20 million. SJF Advisory Services, an allied nonprofit organization, provides entrepreneurial, workforce and sustainability assistance services to SJF prospect and portfolio companies.



For more information about SJF Ventures, contact Rick Larson, managing director, at (919) 530-1177, or [rlarson@sjfund.com](mailto:rlarson@sjfund.com), or visit the SJF Ventures Web site at <http://www.sjfund.com>.

### **N.C. Agricultural Finance Authority**

The N.C. Agricultural Finance Authority provides financing to farmers and agribusinesses engaged in the processing and manufacturing of agricultural products, and agribusinesses that provide value-added processing or support



---

for other facets of agriculture such as composting and manure management. For more information about the N.C. Agricultural Finance Authority, contact Dr. Frank Bordeaux at (919) 790-3949, or [frank.bordeaux@ncmail.net](mailto:frank.bordeaux@ncmail.net), or visit the National Council of State Agricultural Finance Programs Web site at <http://www.stateagfinance.com/northcarolina.html>.



### **N.C. Rural Economic Development Center and its Institute for Rural Entrepreneurship**

The mission of the North Carolina Rural Economic Development Center is to develop, promote and implement sound economic strategies to improve the quality of life for rural North Carolinians. The center serves the state's 85 rural counties, with a special focus on individuals with low-to-moderate incomes and communities with limited resources. Created in 1987, the Rural Center operates a multi-faceted program that includes conducting research into rural issues; advocating for policy and program innovations; and building the productive capacity of rural leaders, entrepreneurs and community organizations. The Rural Center is a private, nonprofit organization, funded by both public and private sources and led by a 50-member board of directors.



The Institute for Rural Entrepreneurship was established in October 2003 to stimulate and support the development of micro, small and medium-size enterprises in North Carolina's 85 rural counties. The institute is housed within the Rural Center and draws from a range of resources to serve the needs of rural entrepreneurs, community and economic leaders, and state policy makers. The goals of the Institute for Rural Entrepreneurship have been developed by the Rural Center in collaboration with state business leaders and public officials. They are to:

- Support self-employment as an important source of jobs and income in rural North Carolina.
- Support development of entrepreneurial companies - new and existing - that can grow and generate jobs and wealth in rural communities.
- Support rural communities as they celebrate and build support systems for entrepreneurship.
- Support overall improvement in the health and vitality of the small business community in rural areas.

***Recycling  
Means  
Business!***

For more information about the Rural Center's Institute for Rural Entrepreneurship, contact Leslie Scott, director at (919) 250-4314, or [lscott@ncruralcenter.org](mailto:lscott@ncruralcenter.org), or visit its Web site at <http://www.ncruralcenter.org/entrepreneurship>.

#### **North Carolina State Energy Office**

The State Energy Office administers programs and provides services to consumers and homeowners, business and industry, state and local municipalities and nonprofit organizations in all North Carolina counties. Its main areas of focus are energy efficiency and renewable energy, alternative fuels and alternative fuel vehicles, energy emergencies and energy policy.

Under the aegis of the Energy Policy Council, and guided by the State Energy Plan, the State Energy Office has been administered by the N.C. Department of Administration since October 2000.

The State Energy Office coordinates several programs to help ensure that North Carolina businesses and industries are productive, energy efficient, technologically savvy and competitive. Energy savings can be achieved through design, operations and maintenance of commercial and industrial facilities as well as schools and government buildings.

The State Energy Office supports a number of alternative transportation programs, including alternative fuel vehicles, designed to reduce dependence upon fossil fuels and improve air quality. The Energy Office also supports several programs that utilize solar, wind and biomass resources.

For more information, contact the State Energy Office at (919) 733-2230 or (800) 662-7131, or [energyinfo@ncmail.net](mailto:energyinfo@ncmail.net), or visit its Web site at <http://www.energync.net>.

# Index

Brooks Contractors .....	7
Bryant's Recycling Inc. ....	8
Caraustar .....	9
Carolina Materials LLC .....	10
Clean Green Inc. ....	11
Cohen and Green Salvage Company Inc. ....	12
CompuTel IG LLC .....	13
Curbside Management Inc. ....	14
Custom Polymers Inc. (Blue Ridge Plastics) .....	15
Eastern Carolina Vocational Center .....	16
Elizabeth City Glass Inc. ....	17
Envision Plastics .....	18
FCR .....	19
Filter Speciality .....	20
Food Bank of Central & Eastern N.C. ....	21
Foothills Sanitation & Recycling .....	22
GEEP/ARC .....	23
Habitat ReUse Center .....	24
Hartsell Scrap Metal .....	25
Introduction .....	1
Jackson Paper .....	26
K&K Recycling .....	27
Kamlar Corporation .....	28
McGill-Leprechaun Environmental .....	30
MRR Southern .....	29
Noble Oil Services Inc. ....	31
N.C. Recycling Business Assistance Providers .....	49
Nucor Corporation .....	32
Oaks Unlimited .....	33
Pallet Resource of N.C. Inc. ....	34
Plastics Revolutions .....	35
PreServe Business Systems .....	36
Profile Products .....	37
Recovering the "Waste Stream" .....	5
Recycle America Alliance .....	38
Recycling Jobs Impact .....	3
Roll-Tech Inc. ....	39
Scotland Neck Heart Pine Inc. ....	40
Shimar Recycling Inc. ....	41
Synergy Recycling LLC .....	42
TODCO .....	43
Total Maintenance .....	44
Union Gypsum .....	45
U.S. GreenFiber .....	19
Wagram Paper Stock .....	46
Wallace Farms Soil Products .....	47
Weyerhaeuser .....	48

***Recycling  
Means  
Business!***

# Index by County

***Recycling  
Means  
Business!***

<b>Buncombe</b>	
Curbside Management.....	14
<b>Catawba</b>	
Profile Products.....	37
Roll-Tech Inc. ....	39
<b>Chatham</b>	
Brooks Contractors .....	7
McGill-Leprechaun Environmental .....	30
<b>Cumberland</b>	
Cohen & Green Salvage Company Inc. ....	12
<b>Davidson</b>	
Pallet Resource of N.C. Inc. ....	34
TODCO .....	43
<b>Durham</b>	
Cleen Green Inc. ....	11
GEEP/ARC .....	23
Shimar Recycling Inc. ....	41
<b>Edgecombe</b>	
Scotland Neck Heart Pine Inc. ....	40
<b>Forsyth</b>	
Recycle America Alliance.....	38
<b>Guilford</b>	
FCR.....	19
MRR Southern .....	29
<b>Gaston</b>	
Carolina Materials LLC.....	10
PreServe Business Systems.....	36
<b>Haywood</b>	
Oaks Unlimited .....	33
<b>Hertford</b>	
Nucor .....	32
<b>Jackson</b>	
Jackson Paper .....	26
<b>Lee</b>	
Noble Oil Services Inc. ....	31
<b>Mecklenburg</b>	
Caraustar .....	9
CompuTel IG LLC .....	13
Custom Polymers Inc. ....	15
FCR.....	19
Nucor .....	32
U.S. GreenFiber .....	19
Wallace Farms Soil Products .....	47
Weyerhaeuser .....	48
<b>Mitchell</b>	
Hartsell Scrap Metal .....	25

<b>Nash</b>	
Kamlar Corporation .....	28
<b>New Hanover</b>	
Total Maintenance .....	44
<b>Pasquotank</b>	
Elizabeth City Glass Inc. ....	17
<b>Pitt</b>	
Eastern Carolina Vocational Center Inc. ....	16
<b>Rockingham</b>	
Custom Polymers Inc. (Blue Ridge Plastics) .....	15
Envision Plastics .....	18
Plastics Revolutions .....	35
Synergy Recycling LLC .....	42
<b>Sampson</b>	
Bryant's Recycling Inc. ....	8
Filter Specialty .....	20
McGill-Leprechaun Environmental .....	30
<b>Scotland</b>	
Wagram Paper Stock .....	46
<b>Union</b>	
Union Gypsum .....	45
<b>Wake</b>	
Food Bank of Central & Eastern N.C. ....	21
Habitat ReUse Center .....	24
MRR Southern .....	29
Recycle America Alliance .....	38
<b>Washington</b>	
Weyerhaeuser Company .....	48
<b>Wilkes</b>	
Foothills Sanitation & Recycling .....	22
<b>Wilson</b>	
K&K Recycling .....	27

***Recycling  
Means  
Business!***