



Recycling Works

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Winter 2014

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

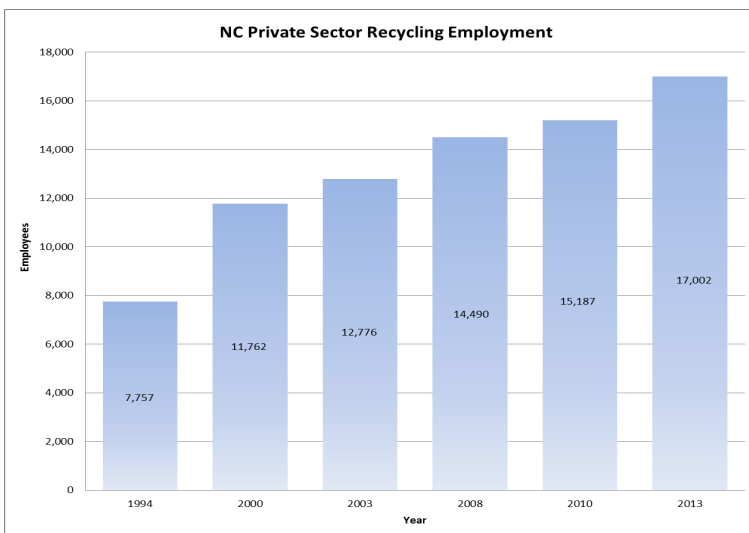
Job Growth in NC Recycling Industry, Study Shows

by Sherry Yarkosky, Recycling Business Development Specialist

Private sector recycling jobs in North Carolina have increased by nearly 12 percent since 2010 as recycling businesses in the Tar Heel State continue to grow and thrive, according to a [study released](#) by the N.C. Department of Environment and Natural Resources.

The study's major findings include:

- There are more than 17,000 direct private sector recycling-related jobs in North Carolina.
- Private sector recycling jobs have increased by 11.95 percent since 2010.



Results published since 1994 document consistent expansion in recycling employment in North Carolina.

- The total estimated annual payroll for North Carolina recycling businesses is \$442 million.
- Forty-five percent of recycling businesses surveyed anticipate creating more jobs during the next two years.
- Eighty-one recycling businesses reported spending \$79.6 million in equipment, facilities, and land investments from 2011 to 2013.
- Fifty-one percent of recycling businesses surveyed plan on investing \$47.3 million in equipment, facilities, or land in the next two years.
- Twenty-eight percent of businesses surveyed report manufacturing a product, using a combined 2,264,565 tons of recycled materials.

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Recycling businesses target a wide variety of recyclables for collection, processing, or use in manufacturing. No single commodity dominates the state's recycling economy.

"Recycling is an important initiative to support manufacturers and reduce our long-term dependence on landfills," said Governor Pat McCrory. "The continued, strong growth of recycling as an economic sector validates its value to our environment and its importance to our economy as a generator of jobs."

Conducted by DENR's Recycling Business Assistance Center, the research is the latest in a series of studies spanning nearly two decades and demonstrates the ongoing contribution of recycling to the state's economic growth. As the graph shown on page one indicates, results published in 1994, 2000, 2003, 2008, 2010, and

2013 document consistent expansion in recycling employment in North Carolina.

"The continued, strong growth of recycling validates its importance to our economy as a generator of jobs," said Governor Pat McCrory.

"This study shows that North Carolina's recycling businesses are thriving, creating jobs, and investing for the long-term," said John Skvarla, secretary of the N.C. Department of Environment and Natural Resources. "By participating

in recycling at home, at work, and on-the-go, North Carolinians help grow the economy while protecting the state's environment."

Data for the report came from a survey of North Carolina-based recycling businesses listed in the state's online [Recycling Markets Directory](#). These businesses received an email invitation to participate in the 2013 recycling business employment study update. Additional recycling employment data from the N.C. Employment Security Commission was included in the study for recycling-related businesses not listed in the Recycling Markets Directory.

A complete copy of the study, *Employment Trends in North Carolina's Recycling Industry—2013*, can be found online at: <http://bit.ly/1fYqHMD>.

For more information, contact Sherry Yarkosky at sherry.yarkosky@ncdenr.gov or 919-707-8133.

Natural Capital Investment Fund

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

Recycling businesses interested in NCIF funding should contact Rick Larson at rlarson@conservationfund.org or by phone at (919) 967-2223.

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



to all the North Carolina recycling businesses that participated in the recent recycling employment study.



Make Plans to Attend the 2014 CRA Conference

by Scott Mouw, Community and Business Assistance Section Chief

The 24th Annual Carolina Recycling Association Conference and Trade Show will offer a unique setting for recyclers to network, learn, do business, and help ensure that 2014 is a successful year. This year's conference returns to the Grove Park Inn in Asheville and will run from Monday, March 31st through Thursday, April 3rd.

The conference program will feature a wide array of cutting-edge technical topics, including:

- The outlook for recycling markets
- Organics collection and composting
- Emerging new energy and processing technologies
- Tackling the #3–#7 plastic recycling challenge
- Construction and demolition recycling markets and trends
- Collection and marketing of new materials
- MRF equipment and operations
- Locating and financing recycling businesses

A special feature of the 2014 CRA conference is the *Manufacturers Zero Waste to Landfill* conference, a concurrent event that will start on Tuesday, April 1st and go through noon on Wednesday, April 2nd.

Attendees of both events will have access to the exhibit hall and will share a general session on Wednesday morning.

Recycling companies who want to market their services to manufacturers who are motivated to completely avoid landfill disposal should consider attending the *Manufacturers Zero Waste* conference and exhibiting in the combined Zero Waste/CRA exhibit hall.

Recycling companies who want to market their services to manufacturers motivated to avoid landfill disposal should consider attending the Manufacturers Zero Waste conference and exhibiting in the combined Zero Waste/CRA exhibit hall.

The CRA Conference is one of the largest state recycling organization events in the country, typically attracting over 500 attendees and exhibitors, from the Carolinas and beyond.

To grab your spot as attendee and/or exhibitor, visit the CRA's conference website: <http://cra.onefireplace.org/2014conference>

The Carolina Recycling Association's
24th Annual Conference and Trade Show

March 31- April 3, 2014
The Omni Grove Park Inn
Asheville, North Carolina
www.cra-recycle.org/2014

Greensboro's EarthStone Products Poised for Major Growth

by Mike Greene, Recycling Business Development Specialist

If you ask Sandy Brady of EarthStone Products how he is doing, he will immediately tell you, "Man, I'm having the best day ever!" His energy and the dedication of his crew have helped catapult EarthStone to one of the fastest growing recycling companies in the state and the only zero waste patio paver in the country.

Located in Greensboro, EarthStone is a partnership between Sandy Brady, who runs the operations and installations, and his brother, Patrick Brady, who oversees the bookkeeping.

EarthStone specializes in turning waste from granite countertop installations into high quality patio pavers and fire pits. According to Sandy Brady, 25 to 35 percent of the slab used to make a kitchen countertop goes to the landfill. "This month, we expect to take in over one million pounds of granite previously going to the landfill," said Brady. "It will be the most we have ever taken in."

EarthStone receives granite pieces in various shapes and sizes and cuts them into a shaped paver with what has been described as a giant cookie cutter. One side is blasted to create a texture that is .77 slip resistant and then sealed.



Granite scrap from countertop installations are received at EarthStone for transformation into granite patio pavers and other granite tile products.



EarthStone's Sandy Brady stamps out a recycled patio paver from granite countertop scrap.



By way of comparison, concrete is only .65 slip resistant. Any leftover scraps are crushed into aggregate for use in North Carolina roadbeds.

To ensure the quality of the finished patio, all projects are installed by the same EarthStone employees who manufacture the product. The patio is installed in one day. The quality of the product is gaining national attention as Panera Bread recently made EarthStone the official flooring of their outdoor gathering areas.

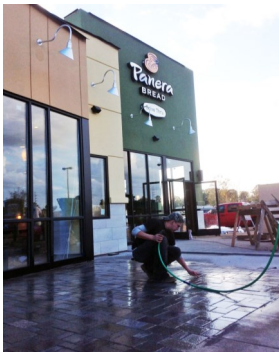
Panera Bread Vice President of Design Creative Jay Jung explains that Panera strives to build gathering places for the local community and the 100 percent recycled EarthStone products fit the corporate model. "The clincher was EarthStone's affordability and installation process," Jung said.

Jung continued, "It was perfect for us – a warm, rich material that is actually doing good for the environment!" Over the next few years, EarthStone pavers will be installed in all new

[\(EARTHSTONE continued on page 5\)](#)

EARTHSTONE continued from page 4

and existing Panera Bread locations across the country that have outdoor patios.



EarthStone employee finishes patio installation at Panera Bread.

In addition to the national exposure from Panera Bread, EarthStone recently formed a partnership with two nationally-known North Carolina companies: Buck Stove in Spruce Pine, and Bob Timberlake in Lexington. Customers can now purchase complete patio

packages designed by Bob Timberlake that include: EarthStone patio pavers and fire pits; Buck Stove inserts, lids, and cooking grills made from 100 percent recycled steel; and, patio furniture made from plastic boards that were once milk jugs. The Bob Timberlake-designed furniture is built by Buck Stove in Spruce Pine.

Brady says of the partnership, "From the research we have done, this is the only patio package we have found that is 100 percent recycled and 100 percent from North Carolina."

While Brady and his employees have taken EarthStone to the next level, Brady is quick to acknowledge the work of those who came before him. EarthStone Products was originally formed by John Tesh, Ronnie McClain and three other investors in 2007 as a company that fo-



EarthStone co-owner Sandy Brady and employees (above right) are focused on growing the business with a primary concentration on outdoor applications, like the recycled patio pavers shown above left.



ocused on interior and exterior recycled granite flooring sold by a network of flooring distributors. The 2008 economic crash created a difficult business environment for the young company. In 2009, the business was purchased by Rosemarie Williams who experienced similar issues due to the recessionary decline in home improvement projects.

In 2008, Brady began a granite custom engraving business. Through his friendship with Tesh and McClain, Brady started engraving material from EarthStone for Williams. When told that EarthStone was closing, the Brady brothers and close friend, John McConnell, Jr., formed a partnership to purchase EarthStone Products. Tragically, days before the purchase was complete, McConnell suddenly passed away. Believing in their friend's vision, Sandy and Patrick Brady found a way to still make the purchase. Speaking of his late friend, Brady said, "We did this in honor of John. The reason that I am here today is because of John."

Since taking over the operations of EarthStone in 2013, Brady made distribution changes to keep prices low. Customers now purchase the pavers and installation directly from EarthStone. He also changed the focus of the company to concentrate primarily on outdoor uses, though interior installations are still available upon request.

Even as EarthStone has taken off, Brady's focus remains on quality and maintaining a personal touch. Brady makes the point, "EarthStone is a small company doing big things and EarthStone will remain a small company."

For more information, contact Sandy Brady at 336-279-8809 or info@earthstoneproducts.net.

For more pictures of EarthStone products, visit the company's website: <http://www.earthstoneproducts.net/wp/>

Rain Water Solutions Partners with Blow Molded Solutions: Adds 100 Percent Recycled Rain Barrel to Product Line

by Sherry Yarkosky, Recycling Business Development Specialist

Raleigh-based Rain Water Solutions, distributor and developer of superior quality rain barrels, recently developed a new addition to its product line made with 100 percent recycled high density polyethylene, or HDPE. The new 50-gallon black Ivy barrel contains 50 percent post-industrial and 50 percent post-consumer content.

The barrels are manufactured in North Carolina by Blow Molded Solutions. Located in Mayodan, Blow Molded Solutions is a HDPE custom blow-molder with 30 employees, working three shifts, 24 hours a day. Founded in 2009 by Scott McNeil, Blow Molded Solutions utilizes virgin and recycled resins in products made for recreation, agricultural, large truck, construction equipment, and consumer markets. In addition to rain barrels, the company manufactures plastic dumpster lids, tool box cases, display cases, shed doors, spill contamination barrels, and nursery containers.

“Being a small-scale blow-molder, we take pride in our commitment to customer service, quality, and working closely with our clients,” said Scott McNeil. “Working with Rain Water Solutions and using recycled feedstock from N.C. recycling processors makes our partnership especially rewarding because it is all done here in North Carolina.”

Rain Water Solutions’ rain barrels are available nationwide through internet sales and community rain barrel programs. Custom programs are developed to meet municipal goals to conserve water. Currently, Rain Water Solutions has partnership programs with the Town of Cary, City of Durham, Durham County Soil & Water Conservation District, New Hanover

County Soil & Water Conservation District, and others across the state.

Rain Water Solutions began in the late 1990s out of personal interest and need by company founders, Mike and Lynn Ruck. “We were in a drought, water conservation policies were enacted, and our dying plants needed water,” reminisced Lynn. At that time, commercially-made rain barrels were not available on the market. The husband and wife team got to work retrofitting a used 55-gallon plastic pickle barrel into a rainwater collection barrel. When the prototype was finished, Lynn and Mike knew immediately that they had a great idea on their hands.

Renting a small work space in Durham, Lynn and Mike obtained 300 used plastic barrels and retrofitted them in their spare time. Excited with the final product, they took samples of the repurposed rainwater barrel to local hardware stores. Receiving no interest from the stores, Lynn and Mike were left disappointed and

(RAIN cont. on page 7)



Rain Water Solutions’ 100 percent recycled Ivy rain barrel is manufactured in North Carolina by Blow Molded Solutions.

RAIN continued from page 6

discouraged. “That’s when we got a little nervous,” commented Lynn. “What were we going to do with 300 rainwater barrels?”

Thinking of other options for distribution, Lynn and Mike met with the Town of Cary Water Conservation Coordinator and the company’s first municipal rainwater conservation partnership began. By the end of the summer, all 300 rain barrels were sold.

“One inch of rainfall coming off a standard residential roof can generate about 650 gallons of water,” stated Lynn. “Given the volumes of water generated during a rain storm, the greatest impact for rain barrels was at the municipal level as a storm water management and water conservation tool.”

Lynn and Mike continued repurposing barrels for community programs until demand outgrew their ability to keep up with supply. In 2001, the company designed its first commercially manufactured product, the 65-gallon Moby rain barrel. Moby was the very first 100 percent recycled barrel on the market, made from post-industrial recycled HDPE plastic. Moby is manufactured by custom rotomolder, Envicor, located in Smithfield.

With more growth pressure and a need to reduce freight costs, in 2008 Lynn and Mike designed the forest green Ivy rain barrel made with 50 percent post-industrial HDPE. Because the Ivy barrel could be nested and stacked when palletized, the number per unit shipped more than doubled. Customer response was positive and the demand for more options of 100 percent recycled content products continued to grow.

Responding again to increased demand, Rain Water Solutions recently added a new 100 percent recycled content to its product line. With 50 percent post-consumer and 50 percent post-industrial content, Rain Water Solutions’ new

black Ivy rain barrel now provides a second option for customers wanting a 100 percent recycled content product.

Rain Water Solutions’ long-term goal is to make the rain barrel a part of total household conservation efforts. “Rain barrels are not the solution to the problem but a great education tool for water conservation and water quality issues,” said Lynn. “Our hope is that someday soon every house will come with a recycling cart, compost bin, and rain barrel.”

Rain Water Solutions is one of 30 North Carolina companies that is a certified B Corp. B Corps are certified by the nonprofit B Lab to meet rigorous standards of social and environmental performance, accountability, and transparency. In addition to residential rain barrels, Rain Water Solutions also designs, installs, and services large scale water collection systems or cisterns for commercial, residential, industrial, and agricultural applications.



Rain Water Solutions currently employs five and is located at 3812 Suite C Tarheel Drive, Raleigh NC

27609. For more information about Rain Water Solutions, contact Lynn Ruck at 919-835-1699 or lynn@rainwatersolutions.com, or visit <http://www.rainwatersolutions.com/>.

Blow Molded Solutions



For more information about Blow Molded Solutions, contact Scott McNeil at 336-949-4107 or sales@blowmoldedsolutions.com, or visit <http://www.blowmoldedsolutions.com/>.

State Disposal Trends Move in the Right Direction

by Scott Mouw, Community and Business Assistance Section Chief

For the seventh year in a row, North Carolina was a reduction in per capita solid waste disposal, achieving a new record low of 0.94 tons per person per year of landfilled waste. Total solid waste entering landfills fell from an annual rate of 11.84 million in fiscal year 2006-07 to 9.18 million in fiscal year 2013-14. The continuing decline in disposal helped boost available landfill capacity to a statewide average of 32 years.

Additional recycling was a key factor in the reduction of solid waste disposal. Although the total amount of waste diverted through local government recycling and yard waste programs was down slightly from the previous year (in part because of no major storms and a general fall in paper use), the recycling of containers –

plastic, glass, aluminum, and steel – remains a source of upward growth in material recovery. The number of curbside programs also reached a record high of 315 in fiscal year 2013-14.

Private sector recycling activity, however, is probably the main factor helping disposal move consistently in the right direction, including the increase in business diversion of plastics, organics, and construction and demolition waste, along with the trend for manufacturers to achieve “zero waste.”

To view the State Solid Waste and Materials Management Report, visit: http://portal.ncdenr.org/c/document_library/get_file?p_l_id=4649434&folderId=15429422&name=DLFE-81517.pdf

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2014 Recycling Business Development Grant Round Now Closed

2014 proposals were due on Jan. 16, 2014.

Proposals are currently being reviewed and award announcements will be made in March.

If you missed the deadline, RBAC's grant program is conducted on an annual basis, pending funding approval and availability.

RBAC's request for proposals is typically released in the late fall of each year.

RBAC Says Farewell to Former Department of Commerce Liaison

by Matt Ewadinger, RBAC Manager

Ben Rogers, former Recycling Industrial Development Specialist with RBAC, has accepted a position with Cary-headquartered Ply Gem Industries, a manufacturer of exterior building products.



Ben played a key role in recruiting some of the state's leading plastics and glass processing companies and helped many recyclers navigate the complexities of the state's recycling and other tax incentives.

We have been quite fortunate to have had Ben as part of our team for the past nine years. During his tenure with RBAC, Ben served in the key position of Department of Commerce liaison, dividing his in-office time between DOC and RBAC.

He was an energetic connector of recycling businesses, and was the creator of "Fast Pitch," a popular ice-breaking session at many Carolina Recycling Association Conferences. We wish Ben a fond farewell and great success in his new endeavor.

Does Your Waste Have a Home?
Find one at...

NORTH CAROLINA WasteTrader

www.ncwastetrader.org
N.C.'s Industrial Waste Exchange

North Carolina's marketplace for discarded or surplus materials and products.

This free, waste exchange service is designed to divert recoverable materials from disposal while providing feedstocks and supplies to potential users.

For more information, call Tom Rhodes, 919-707-8140

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 Mike Greene
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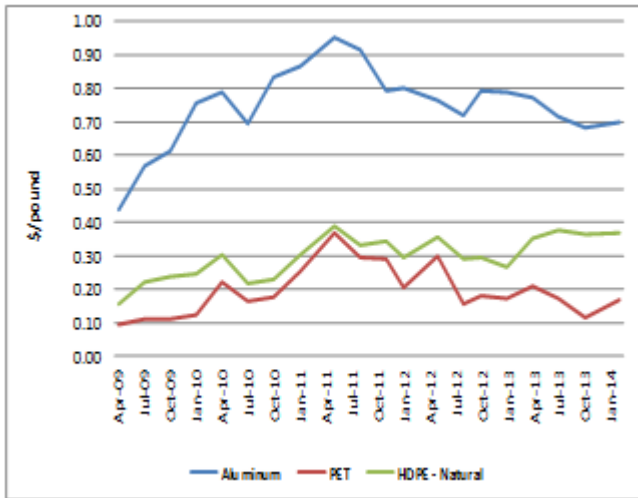
Recycling Works is published by the N.C. Recycling Business Assistance Center, a program of the Division of Environmental Assistance and Customer Service of the N.C. Department of Environment and Natural Resources. For more information, call 877-623-6748, or write to DEACS, 1639 Mail Service Center, Raleigh, NC 27699-1639.

Patrick McCrory, Governor, North Carolina
 John E. Skvarla, III, Secretary, Department of Environment and Natural Resources

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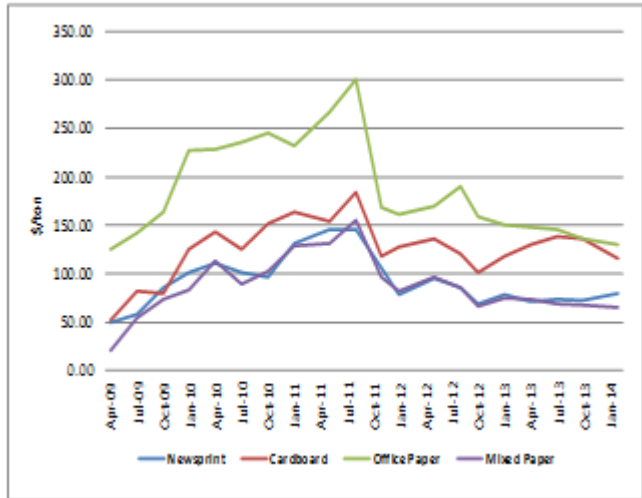


Container Price Trends



Quarterly prices for aluminum cans (loose), PET (baled) and HDPE natural (baled) in dollars per pound.

Paper Price Trends



Quarterly prices for newsprint, cardboard, office paper and mixed paper in dollars per ton, baled.



N.C. DIVISION OF ENVIRONMENTAL ASSISTANCE AND CUSTOMER SERVICE

The Recycling Business Assistance Center (RBAC) is a program of the N.C. Division of Environmental Assistance and Customer Service (DEACS).

Call 877-623-6748 for free technical assistance and information about preventing, reducing and recycling waste.



North Carolina Market Prices for Recyclables

Prices current as of Feb. 10, 2014

Item	Western Region	Central Region	Eastern Region
METALS			
Aluminum Cans lb. loose	\$0.7225	\$0.6700	\$0.7000
Steel Can, gross ton baled	\$276.00	\$110.00	\$134.00
PLASTICS			
PETE, lb. baled	\$0.170	\$0.160	\$0.170
HDPE, lb. baled Natural	\$0.350	\$0.360	\$0.385
Colored	\$0.310	\$0.280	\$0.290
PAPER			
Newsprint, ton baled	\$80	\$60	\$97
Corrugated, ton baled	\$110	\$100	\$136
Office, ton baled	\$120	\$140	\$ *
Magazines, ton baled	\$ *	\$85	\$ *
Mixed, ton baled	\$65	\$55	\$76
GLASS			
Brown, ton crushed delivered	\$18	\$40	\$15
Clear, ton crushed delivered	\$25	\$60	\$25
Green, ton crushed delivered	\$3	\$24	\$0

*Markets with Mixed Paper

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

Visit RBAC online at <http://portal.ncdenr.org/web/deao/rbac>