



Recycling Works

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

Recycling Business Connections Networking Event — Oct. 15 Charlotte, N.C.

by Wendy Worley, Recycling Business Development Specialist

All North and South Carolina recycling business owners and operators are invited to attend the inaugural Recycling Business Connections event to be held on Oct. 15 in Charlotte.

The event will provide a unique networking opportunity to forge new partnerships and grow recycling businesses in the Carolinas.

The Carolina Recycling Association, N.C. Recycling Business Assistance



Center, and S.C. Department of Commerce are working together to organize the event and encourage all recycling businesses in the Carolinas to attend.

Oct. 15, 2014

4 - 7 P.M.

**Byron's South End
Charlotte, N.C.**

Mark your calendars and register online today!

<http://bit.ly/RecycleBizCnct>



Recycling businesses will have the unique opportunity to expand their networks and grow their businesses at the Recycling Business Connections event on Oct. 15 at Bryon's South End in Charlotte.

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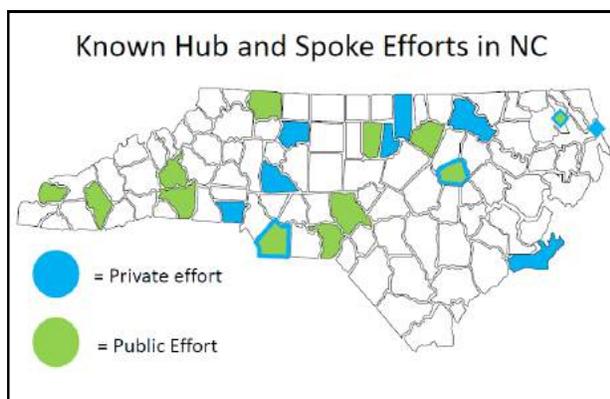
God Bless the USA Invests in Hub-and-Spoke Model, Sees Business Growth

by Mike Greene, Recycling Business Development Specialist

As the landscape for commingled recycling evolves, some companies in smaller communities are finding the “hub-and-spoke” model is their best option to tap into material recovery facilities in larger markets.

The hub-and-spoke model brings to mind a bicycle wheel which has many spokes meeting at a central point, or the hub, at the center of the wheel. The efficiency of this model works well in locations where there are not enough tons of recyclables to warrant a material recovery facility, but the distance is too great to take each collection route load to a processing center. This approach is, in reality, a transfer station strictly for commingled recyclables.

There are several examples of hub-and-spoke operations throughout the state from private companies, communities, and in public/private partnerships, as seen in the figure below. One of the newest private efforts is being implemented by God Bless the USA, Inc. in Union County.



The map above illustrates the N.C. counties that have adopted hub-and spoke recycling programs in an effort to offer efficient, commingled recycling programs in rural areas.



God Bless the USA, Inc. in Union County services more than 25,000 customers, including residential curbside customers, as shown above.

Founded in 2005 by Eric Blowers, God Bless the USA, Inc. began as a small collection company with a single truck. During the next several years, GBUSA experienced steady growth in the company’s subscription recycling and trash service and acquired several municipal contracts. In 2012, Jason Horner became a partner in GBUSA with the goal of taking the company to the next level.

For GBUSA, the decision to build its spoke facility was the perceived lack of infrastructure in Union County. As the company looked at converting all of its customers from 16-gallon recycling bins to 95-gallon commingled carts, it found there was no economical way to transport the recyclables. At that point, GBUSA sent each recycling truck, which handled an average of five tons per load, to MRFs in neighboring Mecklenburg County.

(GBUSA continued on page 3)

GBUSA continued from page 2



The conveyor and compactor shown here in GBUSA's spoke model were designed to fit into a compact area and have proven effective in consolidating commingled recyclables for transport to market.



The project has allowed GBUSA to collect an additional 100 tons of recyclables per month. The company was also able to open its facility to other recycling collectors and is now transferring around 500 tons per month of commingled recyclables to the Charlotte area.

The GBUSA example shows that as fuel costs continue to rise, along with the public demand for commingled recycling, hub-and-spoke models will increase the efficiency of curbside recycling in areas of North Carolina that are not in close proximity to a MRF.

For more information, contact Jason Horner at (704) 708-5872 or jason@gbusainc.com.



In 2013, GBUSA received a Recycling Business Development Grant to aid in the hub-and-spoke project's development. The goal was to increase efficiency by 30 percent and to eliminate more than 500 trips per year to Charlotte. In addition to adding a tip floor to the company's current property to house the equipment, GBUSA purchased a conveyor, compactor, tractor and trailer.

With the new system, the recyclables are off-loaded from the route truck onto a conveyor that delivers the commingled recyclables to a compactor and a 53-foot walking floor trailer. The trailer has an 18-23 ton load capacity and helps increase recyclable payloads going to the MRF 250 percent more than individual route trucks.

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.



Republic Services Makes Major Investments to Redesign Conover Material Recovery Facility

by Mike Greene, Recycling Business Development Specialist

On June 5, Republic Services unveiled its refurbished material recovery facility in Conover in a grand opening celebration. The new state-of-the-art facility covers 49,000 square feet, employs 43 North Carolinians and has the capability to process 25 tons of single-stream recyclables per hour.

The MRF was originally built in 1989 and was one of the first regional MRFs in North Carolina. The new facility is part of a long-term partnership with Catawba County, where Republic has had the hauling franchise for more than 40 years. Catawba County Board of Commissioners Chairwoman, Kitty Barnes said, “We are excited to be a partner and to have this facility here. This has been a really positive public-private partnership.”

LaDonna Bolton, division manager for Republic Services, said that planning for the redesigned facility began in 2009. The company broke ground in Nov. 2013, but continued receiving material throughout the construction process.



Republic's newest MRF in Conover employs 43 North Carolinians.



Local and state officials join Republic's management team for the ribbon cutting.

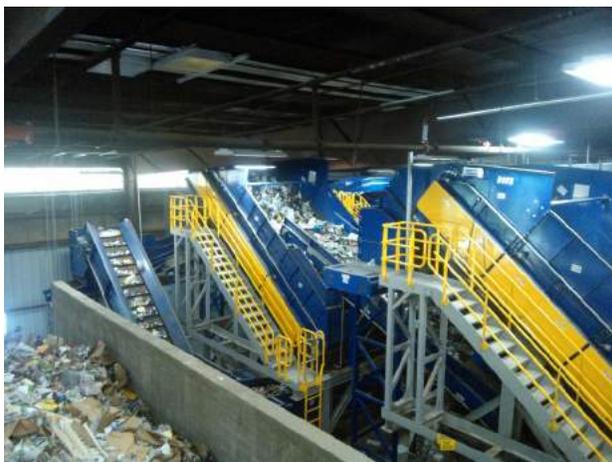
According to Bolton, “We partnered with third parties for our unprocessed recycling materials. We dumped our mixed residential routes at the facility and trans-loaded this material. We delivered our commercial and industrial segregated materials direct to third parties and utilized a local warehouse to continue our trailer and baler service.”

While Republic invested more than \$10 million in the project, it also received \$40,000 from the state as part of the N.C. Recycling Business Development grant. According to Republic Area President Drew Isenhour, the refurbished facility will enable Republic to convert approximately 146,000 homes to commingled single-stream recycling.

The new processing equipment includes two optical sorters, a Nihot single-drum separator, and a Debris Roll Screen with tri-disk technologies. This high-tech equipment allows Republic to place 98 percent of the recyclables in the correct bale, reducing bale contamination and residue.

(REPUBLIC continued on page 5)

REPUBLIC continued from page 4



With the new high-tech equipment shown above, the new Conover facility has the ability to process 25 tons per hour with 98 percent sorting accuracy.

In addition, Republic invested in the facility's education center, which looks over the processing floor through a wall of windows. The education center includes a large screen moni-

tor where visitors can view the process in real-time and a large mural illustrating the path of recyclables through the facility.

While the equipment in this new facility allows Republic to more than double its previous output, it would not be possible without the hard work of the staff. Bolton remarked, "Our employees bought into our vision and willingly worked many hard, long hours. It was a team effort and everyone took ownership."

The Conover facility is the newest of Republic Services' 64 recycling facilities nationwide.

For more information, contact Republic Services' LaDonna Bolton at (828) 327-3119 or L.Bolton@republicservices.com, or visit <http://www.republicservices.com/corporate/localservices/location.aspx?SID=3154>.

Detroit Lions Team Up With Repreve® For First-Of-Its-Kind NFL Team Sustainability Initiative

by Matt Ewadinger, RBAC Manager



The Detroit Lions announced [Unifi, Inc.'s REPREEVE®](#) recycled fiber brand as the team's new official sustainability partner. The #TurnItGreen initiative supports stadium-based recycling efforts and a consumer education campaign to "Make the Smart Throw," encouraging fans to toss their bottles into recycling bins instead of trash cans.

REPREVE and the Lions are calling on fans to help the team reach its target 100 percent recycling rate throughout the 2014 season. Achieving this feat will lead to direct benefits for students at the Detroit Lions Academy, who will be awarded with new REPREEVE clothing.

The collaboration includes several activation

elements with a series of #TurnItGreen promotions with fans and players that will help educate the public about the quality products that can be made from recycled materials and keep valuable materials from the landfill.

"Together with the Detroit Lions, we are working to highlight the ease of in-stadium recycling and showcase the benefits of recycling," said Roger Berrier, President and Chief Operating Officer of Unifi, Inc.

For more information on REPREEVE, visit www.REPREVE.com, or www.facebook.com/REPREVE. To learn more about the Lions partnership with REPREEVE, please visit www.detroitlions.com/turnitgreen.html.

PPRE Forevergreen Grand Opening Launches Ambitious and Unique Recycling Operation

by Matt Ewadinger, RBAC Manager

On the afternoon of June 20, a new recycling operation opened in Charlotte that could add the word “Re-Turning” to the Reduce/Reuse/Recycle mantra. Re-Turning in this case refers to the ex-inmates who comprise the workforce at the PPRE Forevergreen recycling operation just off of Interstate 85 on Montana Drive in northwest Charlotte.

PPRE provides toll processing of a variety of plastic and paper products from the recycling industry. Its clients include Sonoco Recycling and CHS Plastics, as well as a number of special project-type clients. Bales of mixed recyclables generated by companies such as Walmart are broken apart, processed, rebaled, and delivered to market. The 15 employees working at the facility processed more than 5,000 tons of material in PPRE’s first two months of operation.

“We plan to add a second and third shift in the next few months and our goal is to have between 70 and 100 employees by the end of the year,” said Reverend Joseph Robinson, the founder of PPRE. “We also have our sights set on expanding to the Piedmont Triad area in the near future.”



The program cover for the grand opening of PPRE Forevergreen is shown above.

Robinson envisions the opening of this facility as the beginning of a National Workforce Development Program for returning inmates.

“We recognize that employment alone does not reduce recidivism, there-



Reverend Joseph Robinson, accompanied by PPRE Forevergreen workforce, addresses the Grand Opening audience.

fore we offer a holistic approach to rehabilitation including legal and housing assistance, mentoring, financial counseling, substance abuse programs and many other services beneficial to returning citizens and their families,” said Robinson. “Professionals who provide these services include: chaplains, social workers, teachers and retired military personnel, to name a few.”

For more information, contact Robinson at (704) 819-7897 or jrobinson243@gmail.com.



Approximately 40 audience members listened to Reverend Robinson’s welcoming remarks at PPRE Forevergreen’s grand opening on June 20.

Reily Recovery Systems Seeks More Vinyl Siding for Recovery

by Sherry Yarkosky, Recycling Business Development Specialist

With the roll-out of a recycling dumpster bag collection program started this year, Reily Recovery Systems wants to increase the recovery of vinyl siding. This new program is aimed at serving construction and demolition landfills, construction and demolition recycling processing facilities, new residential subdivision construction sites, and vinyl siding contractors.

Similar to a large duffel bag, the dumpster bag is designed for heavy use and can hold 400-450 pounds of vinyl siding. Each dumpster bag costs \$30 and can be reused 8-10 times before needing to be replaced. A simple forklift is used to load the dumpster bag filled with vinyl siding onto a truck for delivery.

For clean vinyl trim scrap siding and vinyl accessories delivered to the warehouse located in Haw River, Reily pays \$0.10 per pound. Alternatively, route pickups can be arranged for loads of 2,000 pounds or greater.

“We developed this program to be easy for the user,” states Kevin Reily, owner of Reily Recovery Systems, Inc. “Simply call us to get started, fill up the dumpster bags with clean vinyl siding, and then call us for pickup or deliver to our warehouse.”

The recovered vinyl siding becomes feedstock in the manufacture of pipe and other building products.

Unacceptable materials such as Styrofoam, shutters, shingles, mud, metal, paint, rocks, glass or paper should be kept out of the bag.

In addition to vinyl siding, Reily Recovery also recovers other post-industrial plastic and materials, including ABS, Acrylic, Nylon, Polycarbonate, LDPE (Low Density Polyethylene),

HDPE (High Density Polyethylene), LLDPE (Linear Low Density Polyethylene), HMWPE (High Molecular Weight Polyethylene), MDPE (Medium Density Polyethylene), PET (Polyethylene Terephthalate), PP (Polypropylene), PUR (Polyurethane), PVC (Polyvinyl Chloride), and metals, such as copper and ferrous.

Reily Recovery Systems currently employs nine and the 100,000 square foot warehouse is located at 224 E. Main Street/U.S. Hwy 49, Haw River, N.C., 27258.

For more information, contact Kevin Reily at (919) 933-3611 or kevin@reilyrecovery.com, or visit <http://www.reilyrecovery.com/>.



Dumpster bags (shown above) are filled with recovered vinyl siding by the generator and transported to Reily Recovery Systems for recycling.

Anchors Aweigh, Marine Consignment Store, Opens in Beaufort

by Wendy Worley, Recycling Business Development Specialist

On May 15, Captain Ed Carter and Penny Fleener opened Anchors Aweigh, a new concept consignment store for marine supplies and equipment. Located at 414 Live Oak St. in Beaufort, N.C., Anchors Aweigh sells used parts and supplies from old boats, including small motors, sinks, chairs, electronic equipment, cords, personal floatation devices, and other miscellaneous marine supplies.

The community has responded positively to the opening of the store. The company is doing brisk business in the short few months it has been open.

Customers can walk to the store from the Beaufort Waterfront where their boats are docked or anchored. In addition, customers can use the

waterfront's courtesy cars to drive and access the store.

Larger diesel motors and generators are also available from the company's Jarrett Bay warehouse.

For more information, contact Ed Carter or Penny Fleener at (252) 772-5088 or AnchorAweighConsignment@ec.rr.com.



A wide variety of marine supplies, as shown above, can be found at the newly-opened Anchors Aweigh consignment shop, located in Beaufort, N.C.

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RBAC Welcomes New Staff Member: Stacy Smith

by Matt Ewadinger, RBAC Manager

RBAC is pleased to announce the addition of Stacy Smith to the recycling business assistance team. Stacy fills the Industrial Development Specialist position previously held by Ben Rogers.

As RBAC's liaison with the N.C. Department of Commerce, Stacy will be dividing in-office time between DOC and RBAC. Her focus will be on recruiting new recycling businesses to the state and assisting existing companies with expansion efforts.

Prior to joining RBAC, Stacy was employed as a Community Development Specialist with DOC, where she was in charge of a variety of major

statewide community and economic development initiatives.

Stacy received her bachelor's degree in American Studies from UNC-Chapel Hill and masters' degrees in Sociology and History from the University of Amsterdam.



Stacy can be reached at our Green Square office in Raleigh at (919) 707-8135 or stacy.smith@ncdenr.gov.

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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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