

**NORTH CAROLINA
RECYCLING BUSINESS
ASSISTANCE CENTER**

Recycling Works

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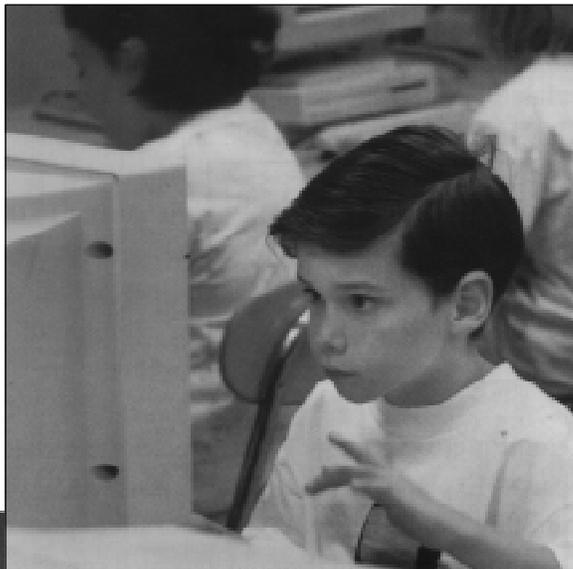
A cooperative effort of the North Carolina Department of Environment and Natural Resources and the North Carolina Department of Commerce.

ExplorNet recycles computers, focuses on technology integration in public schools

By John Blaisdell, RBAC Market Development Specialist

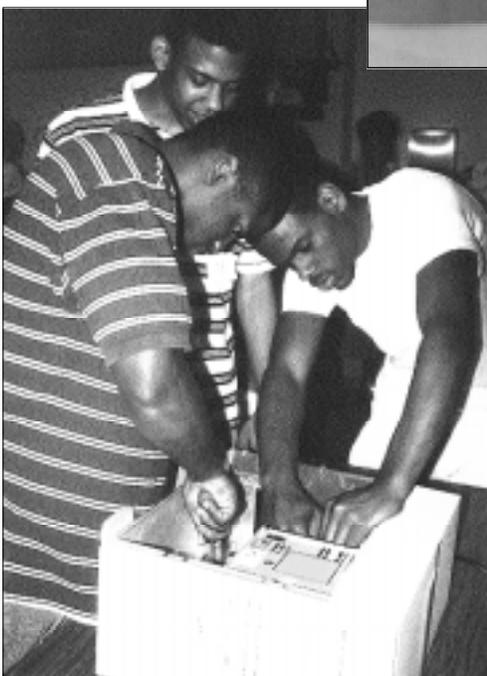
ExplorNet, a computer recycling and reuse company, is focusing on the technology and integration of electronics and computers in public schools. Its programs are providing more sophisticated learning applications for both children and teenagers.

Right: An elementary student retrieves a "world" of information through Internet access.



The reuse and recycling of computers and electronics equipment is an exciting and emerging concept. A new company, ExplorNet, recently formed here in Raleigh, has had an impressive start. More than just a "computer recycling" company, the results of ExplorNet's focus on technology integration in public schools has resulted in the reuse of a significant number of computers. During the past year, ExplorNet's program helped build 250 computers from recycled and new parts.

(See ExplorNet, page 7)



Left: Also through ExplorNet's program, high school students get hands-on experience by upgrading the internal parts of computers.

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RBAC garners third EPA jobs through recycling grant award

Matching funds come from NCDENR and Self-Help

By Matt Ewadinger, RBAC Manager

The Environmental Protection Agency (EPA) recently selected the North Carolina Department of Environment and Natural Resources' (DENR) Recycling Business Assistance Center (RBAC) for funding of its Jobs Through Recycling (JTR) project.

The project will help establish the dedicated Recycling Business Loan Component of an Environmental Business Loan Fund.* Designed to serve the recycling industry with loans that take higher risks than conventional bank loans, it will be administered by Self-Help, a nationally recognized community development bank that has loaned more than \$3.8 million to recycling companies during the past seven years.

Nearly \$140,000 awarded

The \$139,671 awarded by EPA for the project will be matched with \$250,000 from DENR and \$525,525 from Self-Help. "We expect that this project will evolve into a private self-sustaining source of capital for the recycling industry and other North Carolina environmental businesses," said Bob Schall, president of Self-Help Ventures Fund. The success of the project will be measured in its ability to:

- ♦ provide \$660,000 in loan capital at project initiation,
- ♦ raise an additional \$500,000 in loan capital by the end of the two-year contract period; and
- ♦ review and approve at least \$660,000 in loans to recycling businesses that will create or retain at least 80 jobs, provide 115,000 tons per year of recycling capacity, and leverage an additional \$330,000 of private investment in recycling businesses during the contract period.

North Carolina Department of Commerce and Small Business & Technology Development Center join RBAC and Self-Help as Project Partners

North Carolina's Department of Commerce (DOC) and the Small Business & Technology Development Center (SBTDC), the state's business and technology extension service, also will be participants in the project. Along with RBAC and Self-Help, DOC and SBTDC will engage in a series of cross-training seminars designed

to familiarize staff with the Environmental Business Loan Fund, its recycling component, and the project-related business and technical assistance capabilities of each project partner.

RBAC to assist other EPA Region 4 states

As part of EPA's JTR program policy for repeat grantees, RBAC will include a mentoring component to its work plan designed to assist other Region 4 states (Alabama, Florida, Georgia, Kentucky, Mississippi, South Carolina, and Tennessee) interested in developing or expanding their recycling market development programs. One alternative being considered to address this work plan task is for RBAC staff to plan and conduct a recycling market development workshop in conjunction with the Southern States Waste Management Coalition at the March 1999 Southeastern Recycling Conference.

**For more information about the Environmental Business Loan Fund, see page 3 of the March 1998 issue of Recycling Works, or contact Bob Schall, president of Self-Help Ventures Fund at (919) 956-4400.*



Recycling Works is published by the N.C. Recycling Business Assistance Center (RBAC), a program of the Division of Pollution Prevention and Environmental Assistance of the N.C. Department of Environment and Natural Resources (DENR). For more information call (919) 715-6500 or (800) 763-0136, or write to DPPEA, P.O. Box 29569, Raleigh, NC 27626-9569.

James B. Hunt Jr., Governor

R. Wayne McDevitt, Secretary, DENR

Division of Pollution Prevention and Environmental Assistance

Gary Hunt, Director

Scott Mow, Chief, Community & Business Assistance Section

Matt Ewadinger, RBAC Manager

John Blaisdell, RBAC Market Development Specialist

Kathleen Gray, RBAC Market Development Specialist

Diane Minor, RBAC Environmental Engineer

John Nelms, RBAC Industrial Development Specialist

Sharon Gladwell, Information & Communications Specialist

Southeastern Recycling Forum Update:

Polymer Reclaim & Exchange (PRE) reaps benefits from forum and training session



“I found the training session to be remarkably helpful . . . I urge all of my fellow North Carolina-based recycling companies to participate at the next Southeastern Recycling Investment Forum.”

~ Chuck Cooper

President, Polymer Reclaim & Exchange Inc. (PRE)

When Chuck Cooper, president of Polymer Reclaim & Exchange Inc. (PRE), prepared his presentation for the training workshop at the Southeastern Recycling Investment Forum, he did not realize how different the finished product would be.

“I found the training session to be remarkably helpful. I watched the video of my presentation and accompanying critique at least five times, and then went back to the drawing board,” Cooper said. “I missed the point, and the training session straightened me out. I realized that I needed to focus on delivering information based on my business plan and designed to raise capital, rather than the usual recycling conference-type presentation.”

Although it is too soon to gauge results from the forum, owners of PRE have seen some positive developments.

The company has been invited to present at two investment forums (PRE presented at the Northeastern Recycling Investment Forum in May) and has received inquiries about its business from two national recycling companies.

PRE was also given the opportunity to submit an Entrepreneur Application to the International Capital Resources' California Investment Review. PRE was then listed in the spring issue of that publication and has subsequently received inquiries from subscribers. According to Cooper, the invitation was given as a direct result of PRE's participation at the forum.

“I urge all of my fellow North Carolina-based recycling companies to participate at the next Southeastern Recycling Investment Forum,” Cooper added.

— M. Ewadinger

Help for small business owners

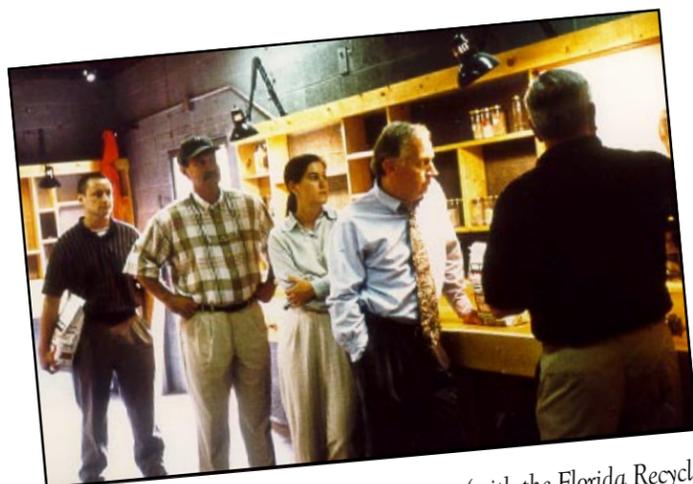
Small businesses create about 60 percent of the new jobs in the United States.

When starting or expanding a business, one resource is the Small Business Administration, which provides loan guaranties.

To learn more, order the new free booklet, *Programs and Services and Borrower's Guide*. Call 1-888-878-3256, weekdays 9 a.m. to 8 p.m. EDT. Ask for SBA Help.

Excerpt taken from Parade Magazine, June 28, 1998, page 16.

Introducing the RBAC staff



Left to right: John Blaisdell, Ray Morreau (with the Florida Recycling Business Assistance Center), Diane Minor, and Matt Ewadinger listen intently as Don Evans of the Waste Reduction Production Corp. (WRPC) explains the company's marketing strategy for its products.

JOHN NELMS

INDUSTRIAL DEVELOPMENT REPRESENTATIVE

- Liaison between NCDENR and the Department of Commerce
- Areas of expertise include C&D debris, recycling markets, and recycled product procurement
- Member, Department of Transportation's Recycling and Solid Waste Task Force
- Member, Processed Scrap Tire Material Market Development Grant Program Committee
- M.B.A., Campbell University. B.A., Business Management and Economics, North Carolina State University



John Nelms (right), RBAC's staff person at the North Carolina Department of Commerce, with Doug Byrd, the Commerce's director of the National Development Group with the Business and Industry Development Division.

It has been almost three years since the original RBAC staff was introduced to readers. Since then, many changes have taken place. Bobbi Tousey, the first RBAC manager, is now executive director of the Environmental Technologies Consortium and Jay Tilley, the first RBAC liaison to the Department of Commerce (DOC), is now a retention specialist with DOC. Matt Ewadinger and John Nelms, the two remaining original staff members, are now RBAC manager and DOC liaison, respectively. Diane Minor, Kathleen Gray, and John Blaisdell have joined RBAC during the past year.

MATT EWADINGER

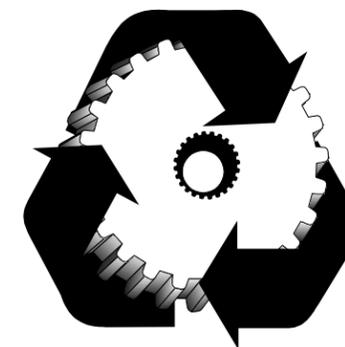
MANAGER

- Formerly a market development specialist with RBAC
- Area of expertise is finance. Maintains close ties with economic development organizations, including the Department of Commerce, Small Business and Technology Development Center (SBTDC), and Self-Help Ventures Fund
- Chair, Southern States Waste Management Coalition
- Previously worked for a consulting firm specializing in waste management and as executive director of multi-county solid waste authorities in Pennsylvania
- B.A. in Economics from East Stroudsburg University

DIANE MINOR

ENVIRONMENTAL ENGINEER

- Manages the feedstock conversion project
- Areas of expertise include plastics, forest products, and C&D recycling
- Participant in the Triangle J Council of Governments' Industrial Ecosystem Development Project
- Previously worked for a national non-profit evaluating recycled paper procurement and with a statewide recycling association on a series of recycling economic development workshops
- M.S., Environmental Engineering, Duke University; B.S., Civil Engineering, UT-Austin



NORTH CAROLINA
RECYCLING BUSINESS
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Kathleen Gray

KATHLEEN GRAY

MARKET DEVELOPMENT SPECIALIST

- Manages the assessment of North Carolina's recycling industry
- Areas of expertise include paper, organics recycling, and environmentally preferable products
- Steering Committee Member, North Carolina Composting and Organics Recycling Council
- Previously worked for an environmental consulting firm focusing on voluntary pollution prevention initiatives and a national non-profit that encouraged businesses to use environmentally preferable products
- M.S.P.H., Environmental Sciences and Engineering, UNC-CH; B.S., Math, Vanderbilt University

JOHN BLAISDELL

MARKET DEVELOPMENT SPECIALIST

- Manages the Directory of Markets for Recyclable Materials
- Areas of expertise include electronics and C&D recycling
- Previously worked for a large scale C&D processing operation and as a sales representative for a national solid waste disposal and recycling company.
- B.S., Business Administration, University of New Hampshire.

1998 Wood Waste Reduction Grants awarded

DPPEA awarded a total of \$100,000 this June to establish and support programs for recycling wood wastes in North Carolina. Two public and two for-profit entities were awarded grants through a competitive process that started in April. These funds leveraged a total of \$662,900 in matching funds provided by the grantees.

In the public sector, Rowan and Catawba Counties each were awarded \$25,000 to improve their management of wood wastes. Rowan County will expand current wood waste diversion efforts by promoting its reduced tipping fee for pallets and clean wood waste and purchasing a pre-owned tub grinder to process more than 2,000 tons of wood waste annually. Catawba County will operate a construction and demolition (C&D) processing facility at its new C&D landfill. The county will process wood wastes as

well as brick and block, diverting a minimum of 12,000 tons of waste per year from its landfills.

Hensons' Inc. and Hickory Chair Co. each were awarded \$25,000 to implement wood waste management strategies into operations. Hensons' will construct and operate a wood waste processing facility in Chatham County to grind, compost, screen, and dye waste wood materials. The company will process 7,000 to 10,000 tons per year of primarily land clearing wastes.

Hickory Chair Co. will accept and grind more than 2,000 tons per year of wood wastes from local furniture frame manufacturers and use this material to provide heat in the plant and operate its lacquer drying and lumber drying operations.

— D. Minor

COMPANY PROFILES

Cansorb Industries Corporation (Cansorb)

Cansorb Industries Corp. (Cansorb) is a wood waste processor in Cleveland, N.C. Currently, Cansorb is processing dried pine wood into its primary product, Pine Fresh, a cat litter available in major grocery store chains, including Food Lion, Hannaford, Harris Teeter, Lowe's Foods, and Winn-Dixie. The wood waste used to manufacture Pine Fresh comes from the local manufactured housing industry and pallet recyclers. Product is shipped along the east coast.

The facility is processing about 800 tons of wood waste per month. Cansorb is seeking additional sources of kiln-dried pine wood, chipped or logged, without varnishes, finishes, nails, or staples, and within a 60-mile radius of Cleveland. Long-term plans include potential expansion into other regions of the country and the possible use of alternative energy sources to power the facility.

For more information contact: William Kraigsley, managing director, (704) 278-9603 or billk@cansorb.com. — K. Gray



Roll Tech Inc. produces solid rubber tires using 100 percent of old car and truck tires.

Roll-Tech Inc.

Roll-Tech Inc. has received a \$102,420 grant from the North Carolina Division of Waste Management to expand its operation. Located in Hickory, Roll-Tech manufactures solid rubber tires using 100 percent recycled crumb rubber from car and truck tires. The primary market for the solid rubber tires is the refuse cart industry.

The expansion project will contain three elements. The first is to purchase tire molds for a new tire and wheel. The second is to invest in new processing equipment to allow the plant to

increase the crumb rubber preparation. The third element is to make process improvements to the molding operations to run the new molds, thereby increasing production efficiency. As a result of this grant, 570,000 additional tires (or eight percent of North Carolina's annual generation) will find a higher value-added home. The grant requires that the company use North Carolina generated scrap tires.

— J. Nelms

ExplorNet, from page 1

ExplorNet is a 501 (C)(3) non-profit company incorporated in North Carolina with a mission to improve and expand technology-based learning in North Carolina's schools, particularly rural and low-wealth schools. The ExplorNet Learning Project uses the public-private partnership approach to encourage communities to coordinate resources from government, businesses, and individuals for maximum effectiveness and minimum public expenditure.

North Carolina's NetDay, ExplorNet's enormously successful first project, is an effort to wire all the state's public schools for Internet access. During NetDay '96 more than 16,000 parents and volunteers installed 3.8 million feet of high-speed data wire in 11,480 classrooms, saving taxpayers an estimated \$22 million. Governor Jim Hunt, Lt. Governor Dennis Wicker, and State School Superintendent Mike Ward have declared the entire 1997-98 school year NetYear. School systems aim to finish wiring all classrooms before fall 1998 and could save taxpayers another estimated \$30 million.

ComPuteRecycling (CPR), the second part of ExplorNet's plan, offers an innovative way for businesses to donate outdated computers (386 PC configurations and higher) to schools. Instead of schools receiving old computers they cannot use, CPR routes them to Workforce Development (vocational education) students. Using a curriculum developed by the Department of Public Instruction and ExplorNet, the students install new hardware and upgrade the computers to "Pentium®-class" machines for less than \$400. The CPR curriculum prepares students to take the A+ Certification test (developed by the Computing Technology Industry Association) and earn a nationally recognized certificate of employability. CPR debuted in 1997-98 at seven pilot sites. An additional 40 school systems plan to take part during the 1998-99 school year.

ExplorNet also will publish *Trailblazer Magazine*, which will be targeted to fourth and fifth graders, their teachers and parents. The magazine will include articles and activities to help students learn more about their world through the Internet. The magazine's teacher supplement will have exercises to help teachers incorporate Internet learning into regular lesson plans and help students meet the standards set by the ABCs of Public Education.

In addition to how impressive the overall concept of the program is, ExplorNet's program also coincides with the environmental practice of source reduction activities through direct reuse. Rather than simply grinding the computers and recycling the more valuable materials, ExplorNet is helping reduce the waste stream at its source by reusing almost the entire computer. For more information about ExplorNet's projects, contact Chris O'Shields at 1-888-507-3800, or coshields@explornet.org, or visit the web site: www.explornet.org.

Conference focuses on reuse, recovery, recycling of electronics

Electronics recycling has been receiving increased attention recently as we face the challenge of handling obsolete computer systems. The 1998 Electronic Product Recovery and Recycling Conference, "Developing sound strategies for recovering and recycling electronic equipment," took place in Washington, D.C., in April. The RBAC's John Blaisdell attended the two-day event, which brought together members of both the public and the private sectors, to discuss the development of recycling solutions for managing used electronic equipment.

The conference focused on raising awareness about different issues surrounding the process of electronics reuse, recovery, and recycling. By evaluating these issues, the Environmental Protection Agency (EPA) and state and local governments hope to improve the recycling of this potentially problematic material. Among the challenges to recycling computers, is the danger of handling materials containing lead. Lead typically is present inside computer monitors (cathode ray tubes, or CRTs), and on laminated circuit boards. It is seen as the major barrier to the material's recyclability.

Because of the increasing popularity of computers for both home and business uses, the infrastructure for the safe handling of used electronic equipment should be developed and put into place rather quickly. In North Carolina, with growing concentrated areas of electronics usage, it is especially important that programs are developed to safely handle and process these materials. Fortunately, some of the necessary infrastructure is starting to appear (See related article about ExplorNet, page 1.).





Reduce Reuse Recycle

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

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

North Carolina market prices for recyclables

Prices current as of July 30

Item	Western Region	Central Region	Eastern Region
METALS			
Aluminum Cans, lb. loose	\$0.39	\$0.39	*\$0.39
Steel cans, gross ton baled	*\$73	\$78	*\$50
PLASTICS			
PET, lb. baled	\$0.115	\$0.12	\$0.12
HDPE, lb. baled	\$0.13	\$0.075	\$0.105
PAPER			
Newsprint (ONP), ton baled	*\$30	\$20	\$27
Corrugated (OCC), ton baled	*\$60	\$27.50	\$50
Sorted White Office, ton baled	*\$125	n/a	\$135
Magazines (OMG), ton baled	*\$50	n/a	**
Mixed, ton baled	*\$10	n/a	\$15
GLASS			
Clear, ton crushed	\$42	\$40	\$25
Brown, ton crushed	\$24	\$33	\$21
Green, ton crushed	\$15	\$8	\$2

*Price from end market. **Facility sells magazines with newsprint.
 Note: Prices listed above are compiled by RBAC and are for reference only. These prices are not firm quotes. RBAC obtained pricing information from processors for each category and developed a pricing range. Any wide-range variances in price are attributed to quantity of material, transportation costs, and availability of end markets.

RBAC IS ON THE NET

Visit us at <http://www.p2pays.org/rbac1.htm>



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Division of Pollution Prevention and Environmental Assistance
 PO Box 29569
 Raleigh, NC 27626-9569

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