

# State of Recycling In Arkansas - 2002

In 2002, Arkansans generated more than 4 million tons of solid waste, about 8.2 pounds per day for every Arkansan. The bad news is that we've added nearly one pound per person per day to last year's reported figure of 7.4. The good news is that most of the additional waste was recycled instead of being sent to a landfill.

Landfilling remained the disposal method of choice, but recycling is gaining ground. More than 34 percent of the 2002 solid waste stream was collected, marketed and returned back to consumers as usable products through business and community recycling programs. This puts us above the most recently reported national average and well on our way to reaching the current state goal of 40 percent by 2005.



## The Business of Recycling

Depressed markets for recyclables continued to present some real challenges for community recycling programs, causing several to stop collecting certain items or to close completely. On the other hand, some businesses and industries used recycling to help weather economic hard times. The dual financial impact of reducing costs to landfill waste while earning revenue on wastes sold enticed industry leaders to champion recycling and integrated waste management programs. Approximately 89 percent of the recycling reported in Arkansas is reported by businesses and industries.

One example of this industry leadership is Virco Manufacturing in Conway.

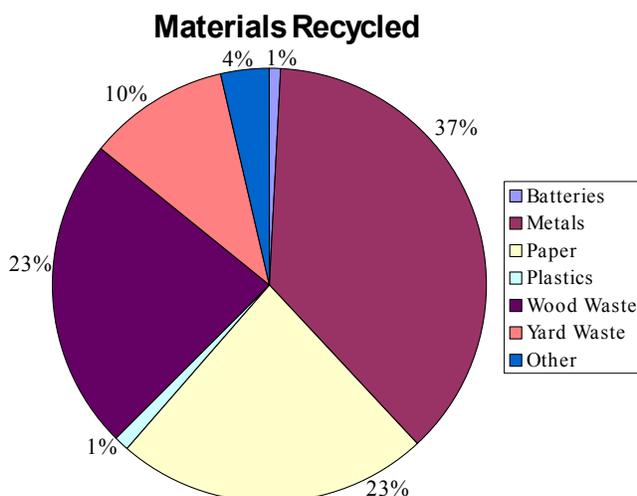
Nationally recognized for its extensive program, Virco has processed more than 75,000 tons (or 150 million pounds) of recyclables since 1989. Annually, the company recycles more than:

- 1.7 million pounds of cardboard and paper
- 300,000 pounds of plastic
- 150,000 pounds of foam upholstery material
- 22 million pounds of particleboard
- 7 million pounds of steel

The Conway facility consistently operates 98 to 99 percent waste-free.

But recycling is not just about the bottom line; it is also about giving back to the community. Virco employees give countless hours of technical assistance to others interested in beginning or expanding recycling programs, and the company is spearheading a corporate council to further business and industry interest in recycling. Virco works with local schools in a "Cash for Cardboard" program. Proceeds for cardboard collected at 25 schools in seven school districts are returned to the participating schools. More than \$45,000 has been returned to Conway area schools since 1993.

Remember, Virco is just one example of how recycling is good business. Throughout the state, businesses are discovering the benefits of recycling and partnering within their communities to strengthen recycling's impact in Arkansas.



# ADEQ Recycling Activities

The ADEQ Solid Waste Management Division's Recycling Section offers general information, technical assistance and educational programs targeted at reducing the amount of waste going into landfills. Although the name focuses on recycling, the section's actual emphasis is on waste prevention including reduction, reuse and composting as well as recycling. In addition, the section administers a multi-million dollar Recycling Grants program discussed in a separate section.

Other activities enhancing recycling in Arkansas were undertaken by the ADEQ Recycling Market Development Section, also part of the Solid Waste Management Division. Each year, this section targets a different waste for special attention. Waste wood was the focus for 2002, and

section staff were successful in expanding the market for this commodity. The amount of waste wood recycled increased 34 percent, moving from 237,838 tons in 2001 to 319,132 tons in 2002. Agricultural plastic pipe is targeted for 2003.

In addition, recycling market development staff administers the Recycling Equipment Tax Credit program, which helps Arkansas businesses, both large and small, invest in recycling. More than 111 companies have invested more than \$355 million, creating nearly 1,600 jobs since the recycling tax credit program began eleven years ago. In 2002, the section certified 31 tax credit applications totaling more than \$15 million.

## Can-Do Attitude



In recycling, as in every part of life, it helps to have a can-do attitude. If there is any one group of people that typifies this attitude, it is the staff and clients of

Arkansas's programs for developmentally disabled adults. The success of these programs, both in recycling and in the developmental growth of participants, has been a constant in a changing environment.

A U.S. EPA Jobs Through Recycling Grant secured by the ADEQ Recycling Section funded a conference and how-to manual for staff of developmental facilities. The result, "Can-Do: Opening Opportunities Through Recycling," offered an introduction to recycling as a work activity for developmentally-disabled adults.

The two-day Can-Do conference attracted more than 100 attendees from nearly 40 different facilities throughout the state. The corresponding manual (100 plus pages) has helped these and additional facilities understand how to incorporate recycling into their programs and the benefits to be gained by doing so.

About a dozen facilities have contacted the Recycling Section since the conference seeking more information about developing recycling programs. At least three have

started programs. Several other facilities expanded programs after the conference. Currently, 19 developmental facilities operate recycling programs in as many counties. At least five of these offer the only recycling opportunity in the county.

Can-Do was a cooperative effort among the Arkansas Department of Environmental Quality, the Arkansas Recycling Coalition, the University of Arkansas Cooperative Extension Service and the U.S.

Environmental Protection Agency. In addition, the Can-Do committee formed to develop the conference and manual included representatives from Baxter Day Service Center, Conway Human Development Center, Cross County Special Workshop, and Nevada County Recycling and Work Center.



*Recycling is a work activity for some developmentally disabled adults.*

# Recycling Grants To Communities

Eight hundred and seventy-nine recycling grants have been awarded to communities over the past nine years. The grant program awarded almost \$3.2 million in 2002, resulting in a total nine-year investment of nearly \$23 million. Citizens, businesses, schools and industries in all 75 counties have the opportunity to reduce waste by making the choice to recycle at 178 public recycling centers. During these nine years, recycling has diverted nearly 7.6 million tons of waste from Arkansas landfills - more than 5,600 pounds for every Arkansan. In 2002, Arkansas recycled 1,391,979 tons, saving more than \$40

million in landfill disposal costs and averaging more than 1,000 pounds per person recycled.

In 2002, the direct economic benefits from the recycling grants program continued to increase. Of the nearly \$23 million granted since 1994, more than \$20.2 million has been expended with a direct economic benefit of more than \$35.6 million to the citizens of Arkansas. For each dollar expended by the program, citizens have realized a direct return of \$1.76 and more than 94 pounds of waste recycled.

## Educational Outreach

Education is vital to the success of recycling in Arkansas. Through the years, education monies from the Recycling Grants have funded educational brochures, workshops for environmental educators and other traditional forms of outreach on the regional and local level. Today, recycling educators also use grant monies to create permanent classrooms, host informational web sites and use mobile billboards to increase awareness.

The ADEQ Recycling Section staff facilitates a variety of educational workshops for teachers of preschool,

elementary, middle, high school and college students. Developing curricula that incorporates into required frameworks yet focuses on solid waste management practices and their impact on the environment helps reach students of all ages. During the fiscal year, recycling staff directly reached more than 3,500 people at approximately 200 trainings, presentations or other outreach activities.

Additional assistance was provided to communities throughout the state in designing educational brochures and other outreach material specific to those areas.

## An Outreach Sampler

The Central Arkansas Regional Solid Waste Management District works with



*Trash-Ella performs.*

various partners to reach citizens in its communities. Partnerships with the ADEQ, University of Arkansas Cooperative Extension Service, other regional solid waste management districts and local Keep Arkansas Beautiful affiliates allow a wide demographic to be reached. Many of the educational programs offered through this District are conducted by Trash-Ella, an outrageously-costumed

singing "pig". Trash-Ella brings recycling and litter prevention education to the students' level, singing revamped Britney Spears' and old-time rock 'n roll songs for example.

In Conway, the recycling education program reached more than 4,700 people through community events including Toad Suck Daze and college volunteer fairs. The recycling program partnered with the Boys & Girls Club and Conway Housing Authority for weekly Environmental Club meetings. In addition to a monthly Trash Talk newsletter, the recycling program provided information as stuffers in utility bills. Sanitation trucks in the City of Conway feature a mobile recycling billboard, directing residents to recycle.

---

**“It (the workshop) was very informative – great motivator for recycling and understanding our environment.”**

---

In 2002, **Craighead County RSWMD/Solid Waste Authority** wrapped up its recycling promotion, It Pays to Recycle, during which public service announcements and live radio broadcasts touted the recycling program. Beginning January 2003, the county kicked off its Blue Bag Blues promotion. The aggressive advertising campaign with three local radio stations again features both public service announcements and live radio broadcasts. A direct mail program reached 30,000 people with coupons promoting the Blue Bag Blues recycling program. Partnering with Arkansas State University’s corporate video class and Wal-Mart resulted in an educational video, Recycling & You. Furthering classroom education, the solid waste district created an environmental educators program for teachers, which requires teachers to attend a minimum of 12 hours of environmental education training, complete a school or community recycling project, and complete a supplemental environmental study.

**East Arkansas RSWMD** continues to use Ricco the Recycling Robot to promote recycling and solid waste management awareness in the district’s six counties. Ricco, a remote-controlled robot, visits schools, fairs, trade shows and community festivals, not only in eastern Arkansas, but also throughout the state and occasionally out-of-state. The easily-recognized mascot was one of the first recycling mascots in Arkansas.

---

**“This was probably the most interesting workshop I have attended!!!”**

---

**Northeast Arkansas RSWMD** uses informational brochures and advertisements to publicize its drop-off program. The District sponsors teachers’ workshops twice annually with the Black River Technical

College in Pocahontas. Students preparing to enter the education field are trained each semester in one of the environmental education workshops offered by the ADEQ Recycling Section. Some recycling drop-off locations in this District are hosted and policed by local schools. An example is Park Elementary School in Corning. Here, students participate in contests throughout the year to increase their recyclables collection. The school program has been recognized nationally for its efforts.

**Northwest Arkansas RSWMD** encourages schools to offer solid waste and recycling education to students by offering competitive grants. The program originated by offering grant funds for various projects, such as vermicomposting (worm composting), throughout the district. It has since evolved into providing educational materials needed by the schools. Those requesting grant funds must complete an application which includes materials being requested and how the materials will be used.

**Sebastian County RSWMD** works directly with schools to offer recycling and solid waste management education. Some 1,800 students in four separate schools are involved in recycling programs or activities. Recycling Rex, the District’s blue dinosaur mascot, promotes recycling at area festivals, fairs, trade shows and other public activities. High school students can earn money for college by serving a one-year term as the mascot/handler.



*Recycling Rex promotes recycling in Fort Smith.*

**Tri-County RSWMD** is one of only a handful of solid waste districts with a full-time recycling educator. During the last fiscal year, the district reached approximately 800 people aged five and older through 15 separate presentations. An estimated 14,215 others attended events where the District operated informational booths. Issues addressed by district education programs include household hazardous waste, electronics recycling, illegal dumping, environmental careers, open burning and general solid waste/recycling.

West River Valley RSWMD partnered with Perry County and Heifer Ranch to offer hands-on demonstrations of backyard composting to county residents and expand the Heifer Project International's Service/Learning Week. Heifer Ranch converted a chicken house to a compost demonstration site, incorporating a vermicomposting demonstration area. More than 700 participants from 19 states received training during this project. Plans are to create a formalized teaching syllabus with instructional booklets or pamphlets for participants and to sell the composted materials as "Pasture Poop."

The White River RSWMD partnered with member communities, as well as area colleges, the North Central Arkansas Child Care Association, Keep Arkansas Beautiful and others to provide information and

materials to more than 7,000 students in grades kindergarten through sixth. In addition, the District sends an electronic newsletter to educators each month updating recycling and solid waste issues, as well as other environmental topics of interest. Partnering with Independence County, the District offered a household hazardous waste and electronics recycling collection event, and created brochures with instructions for making environmentally-safe cleaners. An effective educational tool the District has used for several years is a recycling forum for recycling center managers and others interested in solid waste management. Staffs from recycling centers both inside and outside the RSWMD borders are invited to participate in the half-day training twice annually.

## Recycling's Environmental Benefits

Recycling provides a variety of environmental benefits that are rarely reported except in general statements such as "saves energy" and "reduces greenhouse gases." The National Recycling Coalition has provided an Environmental Benefits Calculator which allows users to quantify these environmental benefits. Using information specific to Arkansas provides the following results of recycling in 2002:

▶ **Energy Savings** due to recycling and remanufacture versus disposal and manufacturing from virgin materials amounted to 14,396,958 million Btus. That's nearly 12 million Btus for every Arkansas household, approximately 11.5 percent of an average annual energy bill. Put another way, it's equivalent to saving 3,488 kilowatt hours, or approximately \$280, per household during the year.

▶ **Greenhouse Gas Emissions** were reduced by 563,410 metric tons of carbon equivalent, a metric measure used to compare the emissions of different greenhouse gases based on their global warming potential. The increased temperature and changes in precipitation associated with global warming could have adverse effects on human health and the economy as well as many ecological systems.

▶ **Other Air Emissions and Waterborne Wastes** were also reduced. Air emissions were reduced by 1,022,192 tons. This includes gases such as sulfur oxides, which contribute to acid rain, and particulates, which contribute to ozone. Waterborne wastes, including ammonia and cyanide, were reduced by 3,806 tons.

▶ **Natural Resources** are conserved when recycled materials are used instead of virgin materials in the manufacturing process. For instance, the steel recycled in Arkansas saved 578,963 tons of iron ore; 324,219 tons of coal; and 27,790 tons of limestone. Arkansans also saved more than 3.2 million trees by recycling paper products.

### Arkansas Department of Environmental Quality

Marcus C. Devine, Director

Solid Waste Management Division  
Recycling Section  
Robert Hunter, Manager  
Phone: 501-682-0812

[www.adeq.state.ar.us](http://www.adeq.state.ar.us)

---

*Information presented in this document is from several sources. Arkansas specific data on waste generated and recycled, the Recycling Tax Credit program and the Recycling Grants program is collected as required by Arkansas Pollution Control and Ecology Commission Regulations 11, 14, 16, 22 and 28. National figures and generic information were provided by the U. S. Environmental Protection Agency.*

# Materials Recycled 2002

<b>Material</b>	<b>Weight in tons</b>
Batteries 10,	907
Cooking Oil	4,429
Glass 2,	712
Metals 508,	223
Aluminum Cans/Non-ferrous	43,829
Oil Filters	60
Steel Cans	1,223
White Goods/Ferrous	463,111
Motor Oil	16,107
Pallets and Other Wood Waste	319,132
Paper 317,	443
Cardboard	182,940
Computer Printout	199
Mixed	19,933
Newsprint	24,038
White Ledger	11,512
Other (hard white shavings, plastic coated, etc.)	78,821
Plastic 35,	106
Agricultural Containers	175
Carpet Padding	5,815
HDPE (High Density Polyethylene)	1,594
LDPE (Low Density Polyethylene)	2,096
PET (Polyethylene Terephthalate)	1,014
Poly Pipe	5,225
Other	19,187
Textiles and Leather	228
Tires 9,	650
Yard Waste	143,071
Other (Teflon, fluorescent lamps, etc.)	24,969
<b>TOTAL 1,391,979</b>	

2,669,149 tons landfilled in 2002

2,669,149 + 1,391,979 = 4,061,128 total municipal solid waste stream in 2002

**1,391,979 / 4,061,128 = 34 percent recycling rate**