



# State of Recycling in Arkansas—2009

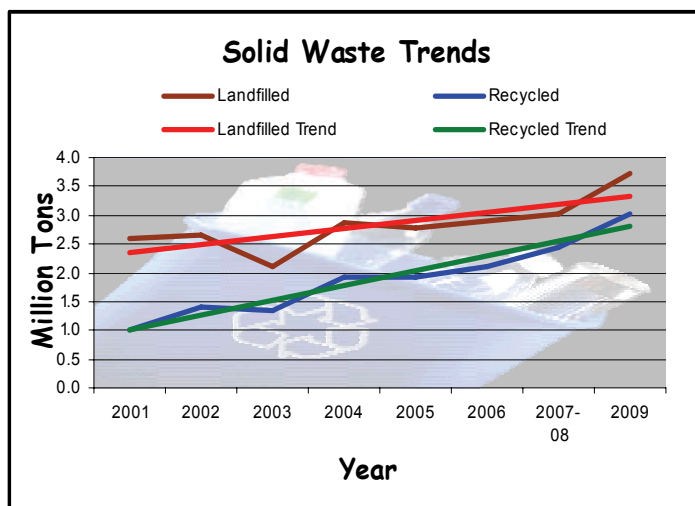
June 2010

Arkansas Department of  
Environmental Quality

## Almost There

Arkansas's current goal is to recycle 45 percent of our solid waste stream by 2010. In 2009, we recycled 44.9 percent through business and community programs. This is a slight increase from the last report, even though recycling markets collapsed like the rest of the economy. (See "Surviving the Fall" on page 8.)

While the amount of material landfilled continues to rise, so does the amount of material recycled. A look at the trends shows recycling is increasing faster than landfilling. In fact, the amount recycled has in-



creased 66.6 percent while the amount landfilled has only increased 30 percent since 2001. (Note the steeper trend line for recycling in the above chart.)

We're sure to reach our 2010 goal if we keep up the good work on recycling. Let's also try to reduce the amount of waste we landfill in 2010 and beyond.

### Inside This Report

Recycling/Market Development Branch Activities	2
Targeting Wasted Resources	3
Recycling Through the Decades	4
Environmental Initiatives Thrive at Harding University	6
Materials Recycled—2009	7
Comparing the Numbers	8
Surviving the Fall	8

As used in this report, "2009" means the period from July 1, 2008, to June 30, 2009.

## Message from the Director

Arkansans recycled more than ever before in 2009, bringing hopes that we will both meet and exceed our goal of recycling more than 45 percent of our waste stream this year.

This goal will be achieved thanks to the hard work and diligence of our neighbors and community

leaders who exemplify what it means to live in The Natural State.

Whether it's the second-grader who learns in the classroom the benefits of recycling juice bottles or the business owner who knows waste reduction

(Continued on page 2)



ADEQ Director Teresa Marks

## Recycling/Market Development Branch Activities

The Arkansas Department of Environmental Quality, specifically the Solid Waste Management Division, is charged with administering solid waste management programs in the state. The Recycling/Market Development Branch focuses on recycling and other waste reduction activities. The Branch provides technical assistance and educational programs throughout the state, plus administers the Recycling Equipment Tax Credit Program.

On the Recycling side, major projects for the year included working with the Rechargeable Battery Recycling Corporation and Radio Shack to provide recycling of all household batteries (except vehicle batteries which are already accepted statewide for recycling) in central Arkansas and assisting with the recycling program at Riverfest. On-going major projects include providing assistance and training for Craighead County's Environmental Schools program and working to develop a statewide solid waste management curriculum supplement.

Recycling staff members gave nearly 300 educational presentations reaching

at least 4,500 Arkansans. This included conducting 16 full- or half-day environmental education workshops for teachers. Other presentations were made at schools, businesses, community group meetings, and special events. Section staff also conducted nine waste audits and assisted with 13 electronics collection events.

On the Market Development side, major work focused on the Recycling Equipment Tax Credit Program and the Arkansas Marketing Board for Recyclables. The Recycling Equipment Tax Credit Program provides a state income tax credit to Arkansas businesses that invest in recycling. The Market Development staff processed 85 tax credits for almost \$16 million worth of recycling equipment in 2009. They planned and conducted four meetings in various areas of the state for the State Marketing Board for Recyclables.

Market Development personnel also attended or conducted an assortment of trainings, business summits and meetings, both in and out of Arkansas. Market Development staff manned a booth at a business expo and attended the

grand opening of a Landfill Gas to Energy Facility also attended by the Governor and state legislators.

In addition, the Solid Waste Management Division's Programs Branch administers two grants programs that enhance recycling in Arkansas:

- ◆ The Solid Waste Management and Recycling Grants program provides funding (from a per ton fee on solid waste generated in the state) for a variety of recycling, composting and other waste reduction programs and projects throughout the state. In 2009, more than \$3.8 million was distributed through 152 grants.
- ◆ The Computer and Electronic Recycling Fund (a portion of the revenue from sales of surplus state-owned electronic equipment) provides grants for development and promotion of environmentally responsible methods of managing electronic waste. In 2009, ADEQ approved nine grants totaling \$140,000 for e-waste recycling projects.

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## Message from the Director *(continued)*

*(Continued from page 1)*

helps the bottom line, Arkansans are committed to improving our environment by keeping waste out of landfills.

In fact, growth in the state's recycling rate has significantly outpaced the increase in waste disposal since 2001, a testament to dedicated Arkansans and a sign that we can easily eclipse this year's recycling goal.

That dedicated effort is seen in our state's recycling facilities. Despite a

sluggish economy that caused recycling markets to plummet, the facilities maintained their programs last year. Many streamlined their operations and looked ahead toward better economic times.

The Department of Environmental Quality understood the economic struggles of our state's recycling community, allowing facilities to use grant money to sustain day-to-day operations.

The Department provided nearly \$4 million in recycling grants in 2009,

while processing dozens of tax credits for businesses to purchase recycling equipment.

We will continue to provide financial support for recycling efforts in 2010, and we'll also focus on ways we can recycle electronic waste and keep it out of landfills.

Our state of recycling has looked better and better every year. With your help, we can continue that trend in 2010.

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## Targeting Wasted Resources

Global security company Lockheed Martin has set its sights on a new enemy: wasted resources. Go Green, a company-wide initiative kicked off on Earth Day 2008, is a commitment to make existing concern for the environment part of Lockheed

Martin's culture, brand and long-term strategy. The resulting company policy combines a big picture outlook and long-term planning with immediate action and results.

A world leader in tactical aircraft; defense electronics; missile defense; surveillance and reconnaissance; naval systems; space-based systems; and unmanned systems, Lockheed Martin doesn't typically fight battles itself. Yet with 1,000 facilities in 500 U.S. cities across 46 states, this is a battle Lockheed Martin is determined to win.

"Reducing ... environmental impact never happens by simply willing it to be so. It requires robust practice, dedicated people and buy-in from every corner of the enterprise" notes Energy, Environment, Safety & Health Vice President Dr. David J.C. Constable on the company Web site.

Apparently, the company has all those factors in place. Through their active participation in Go Green, Lockheed Martin Missiles and Fire Control (LMMFC) Camden Operations' employees recycled almost 379 tons of material – a 76 percent recycling rate – in 2008.

LMMFC Camden Operations spans 1.5 million square feet, with three administration buildings, six manufacturing facilities, two laboratories and almost 200 storage magazines. In reducing the facility's carbon footprint, the facility implemented

an energy management system, reducing costs more than \$209,000 and saving 2,332 metric tons of carbon dioxide. Through process upgrades, waste management methods and facility refurbishments, Camden Operations also saw a 33 percent drop in solid waste in a mere two years.

The corporate Go Green initiative targets waste reduction through recycling efforts. Its success requires setting realistic goals, using effective procedures and achieving the active participation of all employees. The Camden Environmental, Safety & Health (ESH) and Facilities departments developed a recycling program that resulted in an overall recycling rate of 80 percent. Further testament to the company's commitment to Go Green is

that the most recent additions at Camden Operations are recycling centers at three production facilities.

Teams comprised of Camden employees aid the mission's success with "Lean" planning events that help guide decisions to improve operations, reduce waste and further Lockheed Martin's goals. With a focus on cost effectiveness and cost efficiency, these Lean events resulted in the wastewater treatment system renovation which reduced sludge generation by 49 percent.

Corporately and locally, Lockheed Martin is partnering with suppliers for innovative packaging programs to reduce waste being sent to area landfills. Recycling contracts ensure that more than 95 percent of the company's computer equipment is recycled. In Camden, surplus equipment and materials are donated to area schools, non-profits and churches. Area groups received equipment and materials such as computers, forklifts and surplus paint and adhesives.

As the company moves toward a target of eliminating adverse environmental impact from its operations, carbon emissions, solid waste and water usage are expected to be reduced by 25 percent within three years. LMMFC Camden Operations is doing its part to help.



**"When we think of waste, we can no longer think of throwing it away. After all, there is no "away". There is only here, and our land is finite and precious. How much of our earthly home do we want to fill up with garbage?"**

**- Closing statement in LMMFC Camden Operations' Arkansas Recycling Coalition awards application**

# RECYCLING through the DECADES

## 1970s

## 1980s

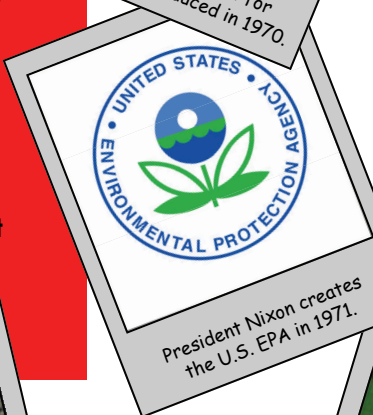
### SW LEGISLATION

Act 237, the Arkansas Solid Waste Management Act - established policy and gave authority for regulating solid waste to the ADPC&E ('71).

The Solid Waste Code approved. Sanitary disposal of the state's solid waste regulated and enforced for the first time ('73).



The Universal symbol for recycling is introduced in 1970.



President Nixon creates the U.S. EPA in 1971.



Bella Vista AARP Recycling Center begins operation in 1972.



Volunteers have been collecting and marketing recyclable materials at the Rogers Community Recycling Center since the late 1970s

- ◆ Dallas County began curbside recycling program ('84).
- ◆ Department revised the Solid Waste Management Code, placing modern engineering and design standards on landfills ('84).
- ◆ Lake City Sanitation & Recycling (Kendrick Ketchum) started a tandem trash/recycling route for cardboard and aluminum cans ('89).
- ◆ Newton County Resource Council held monthly recycling events (late '80s).



1988 - The Plastic Bottle Institute develops a material-identification code system for plastic bottle producers.



1988 - Eureka Springs opens its first drop-off recycling facility.



1989 - Madison County begins a drop-off recycling center. Transfer Station opens in 1993.

### SW LEGISLATION

A private company proposed importing out-of-state waste for disposal in Arkansas. Solid waste disposal became one of the most prevalent issues of the 77th session of the Arkansas General Assembly ('89).

Act 870 created eight regional solid waste planning districts, and declared a moratorium on new landfills receiving waste outside district boundaries ('89).

Act 934 established the Solid Waste Management and Recycling Fund ('89).

1990s

2000s

Arkansas  
reached 43%  
recycling rate  
by 1999.



1991 - City of Jacksonville opens the state's first drive through recycling center.



1992 - Nevada County/Prescott Recycle Center operates on a small scale, without a designated building, until 1994.

#### Drop-off facilities opened:

- ♦ Prairie Grove ('90).
- ♦ Berryville & Van Buren County ('91).
- ♦ Hot Springs ('92).
- ♦ Independence County, Eureka Springs & Northeast RSWMD ('93).
- ♦ El Dorado ('94).
- ♦ Van Buren County, Jackson County & Hippe ('95).
- ♦ Searcy, Fayetteville, Cross County & Ouachita County ('96).
- ♦ Tri-County & Horseshoe Bend ('98).
- ♦ Boone County & St. Francis County [NEARCO] ('99).

#### Curbside programs started:

- ♦ Heber Springs ('91).
- ♦ Hot Springs [pilot], Maumelle & Jacksonville ('92).
- ♦ Fort Smith, Columbia County & Pulaski County RSWMD [pilot] ('93).
- ♦ Siloam Springs & Ozark [pilot] ('94).
- ♦ Berryville, El Dorado, Little Rock & Cleveland County ('96).
- ♦ Fayetteville ('97).
- ♦ Independence County & Prairie Grove [pilot] ('99).

#### Materials Recovery Facilities opened:

- ♦ Ashley County—Arkansas' first "dirty MRF" ('94).
- ♦ Conway ('95).

#### Other programs:

- ♦ Virco Manufacturing Corporation started "Cash for Cardboard" program for area schools ('93).
- ♦ Benton County opened first permanent HHW collection center in Arkansas ('96).
- ♦ Pulaski County RSWMD opened its first Household Chemical Recycling Center ('99).

#### SW LEGISLATION

##### Act 749 ('91):

- ⇒ Established the State Marketing Board for Recyclables.
- ⇒ Created State recycling goals: 30% of 1991 waste stream by 1995 and 40% by 2000.

- ⇒ Established recycling programs for waste tires, lead-acid batteries and used motor oil.

Act 751 banned yard waste from SW disposal sites ('91).

Act 754 added disposal fee for SW Management and Recycling Fund ('91).

Approved an income tax credit program for reduction, reuse or recycling equipment ('91).

ADPC&E becomes ADEQ ('99).



1992 - Stone County Recycling Center opens as a volunteer center.



1992 - First Recycling Tax Credit was issued to A. Tenenbaum.

#### SW LEGISLATION

Act 1410 set target date for banning electronics from AR landfills ('01).

Act 94 ('01) set new recycling goals: 40% by 2005 and 45% by 2010.

Act 649 established a program for the removal and recycling of mercury switches from end of life vehicles—The Mercury Switch Removal Act ('05).

- ♦ Northeast Arkansas RSWMD collected its first million pounds in a single year ('00).

- ♦ Horseshoe Bend opened a satellite recycling center ('01).

- ♦ Stone County Recycling collected its first million pounds ('02).

- ♦ ADEQ conducted "Can Do" conference for facilities working with developmentally disabled adults ('02).

- ♦ North Little Rock began curbside recycling ('03).

- ♦ Project Green-Fed, a computer recycling project with UNICOR, the federal prison industry, is piloted in Arkansas ('05).

- ♦ Pulaski County RSWMD opened its first electronics collection center in North Little Rock ('05).

- ♦ Pulaski County RSWMD began a sharps collection program, "Prevent Sharp Attack" ('05).

- ♦ Siloam Springs opened a recycling drop-off and transfer station ('06).

- ♦ Nucor Steel began utilizing waste tires as a charge material ('09).

- ♦ Conway began construction on a HHW collection center and a reuse center ('09).

## Environmental Initiatives Thrive at Harding University

University and college campuses around the country see it every spring – a spike of 30 percent or more in garbage collections. What's the reason? Move-out, or in some cases, spring cleaning. Either way, officials have found that many of the items being discarded are still useful; students either couldn't or wouldn't take them home. And a few months later, new and returning students begin looking for some of those same discarded items. It's a real waste of resources.

In early spring 2008, Harding University President Dr. David B. Burks formed an environmental committee to address these types of issues. The committee is comprised of students and staff, including representatives from marketing, housing, and facility management.

In May, Harding changed how "Move-Out" was conducted. Rather than eight 40-yard dumpsters, containers were placed at all the dormitories to collect different materials. Four 53-foot trailers from Wal-Mart were used to sort the unwanted materials. After sorting, three of those trailer loads were donated to Harding Academy, a private preK-12<sup>th</sup> grade school on the University campus. Items in those trailers were used to support Harding Academy's fundraising activities, which include an annual garage sale that raised \$20,000 for the Academy. The largest amount raised before was \$11,000.

Remaining items, ranging from personal hygiene/cleaning materials to food to classroom and office supplies, were donated to area groups including the White County Foster Parents Association, Searcy Children's Home, Jacobs House and Habitat for Humanity.

In the following weeks, the university placed almost 500 recycling containers and more than 700 desk-side paper recycling trays throughout its campus and at the Academy. The program accepts paper, plastic bottles, aluminum/metal cans, glass, corrugated cardboard, print and toner cartridges, electronics and more. In the first year, the University collected more than 154,000 pounds of recyclable materials. Harding Academy recycled another 16,060 pounds.

ARAMARK, a provider of food and support services to universities and colleges throughout the country, is an integral part of Harding's environmental initiatives. ARAMARK Higher Education's Facility Services Director Greg A. Tatera notes that the University recycling program has eliminated some dumpster pulls and eliminated other dumpsters completely. "We are still in our infancy,"

he says. "We are at the cusp. I really need people to recycle so I can realize the savings." Even so, costs are down 45 percent over last year.

When the cafeteria quit offering trays, the University immediately saw a 20 percent reduction of food waste. By going "tray-less," students get exactly what they want or need instead of piling on the food just because they're starving at the moment, Tatera commented. Offering reusable to-go containers eliminated Styrofoam® containers. Offering a 10 percent discount for bringing one's own drink container further reduced waste generation.

Other management practices may not be as visible:

- ◆ Of eight major paper products purchased, six are 100 percent recycled paper. By the end of the next fiscal year, all eight will be.
- ◆ Facility services uses five different green cleaners and two separate pieces of green cleaning equipment.
- ◆ Surplus items are either transferred for on-campus use or donated to local and statewide organizations.
- ◆ Organic materials are collected from the kitchen for compost.
- ◆ Bicycles left behind during "Move-Out" are donated to the Academy or to international students.

In the first year of operation, Harding benefited from almost \$40,000 in waste management savings, recovering all but about \$8,000 in initial costs. Tatera is quick to note, however, "We never went into this to make money. That's not why any of this started."

With attitudes like that, it's no wonder that Harding University was recognized for excellence in education by U.S. News & World Report's "Best Colleges" issue.

### Harding's 2009 Numbers

**Truckloads of Cardboard  
Recycled**  
839

**Hardbound Books Recycled**  
3,486

**Pounds of Paper, Plastic  
Bottles, Metal Cans Recycled**  
154,539

**Campus Recycling Containers**  
478

**Desk-side Paper Recycling  
Trays**  
712

## Materials Recycled 2009

Material	Weight in tons
<b>Batteries (lead-acid from vehicles)</b>	<b>5,582</b>
<b>Electronic Waste</b>	<b>495,714</b>
<b>Glass</b>	<b>2,227</b>
<b>Household Hazardous Waste (HHW)</b>	<b>104</b>
<b>Metals</b>	<b>954,845</b>
Aluminum Cans/Non-ferrous—Aluminum, Brass, Copper	225,090
Ferrous—Steel and Iron	617,231
White Goods (Ferrous)	112,524
<b>Oil (motor oil, solvents)</b>	<b>121,003</b>
<b>Paper</b>	<b>425,372</b>
Card board	295,996
Magazines/Mixed Paper	50,663
Newsprint	59,381
Sorted Office Paper	17,044
Sorted White Leger	2,288
<b>Plastic</b>	<b>29,374</b>
HDPE (High Density Polyethylene)	1,174
LDPE (Low Density Polyethylene)	5,276
PET (Polyethylene Terephthalate)	1,040
Poly Pipe	21,884
<b>Textiles &amp; Leather</b>	<b>1,056</b>
<b>Tires &amp; Rubber</b>	<b>26,923</b>
<b>Wood Waste (lumber, pallets, sawdust)</b>	<b>466,579</b>
<b>Yard Wastes</b>	<b>501,221</b>
<b>Total</b>	<b>3,030,000</b>

Tons landfilled in 2009 = 3,711,017

Tons total municipal solid waste stream in 2009 = 6,741,017

(Landfilled + Recycled: 3,711,017 + 3,030,000)

2009 Recycling Rate = 3,030,000 / 6,741,017 = 0.449

**Recycling Rate = 44.9 %**

## Arkansas Department of Environmental Quality

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### Comparing the Numbers\*

	Arkansas		United States	
	2007-08	2009	2007	2008
<b>Solid Waste Generation</b> (pounds/person/day)	10.56	12.94	4.63	4.5
<b>Recycling Rate</b> (percentage of waste recycled)	44.6	44.9	33.1	33.2

\*Please remember that comparing Arkansas's waste generation and recycling rate numbers to the national figures is like comparing apples to oranges. To find out why, see page 6 of the 2006 report—[www.adeq.state.ar.us/solwaste/branch\\_recycling/pdfs/report\\_state\\_of\\_recycling\\_2006.pdf](http://www.adeq.state.ar.us/solwaste/branch_recycling/pdfs/report_state_of_recycling_2006.pdf).

## Surviving the Fall

Because recycling facilities sell the materials they collect to help finance their programs, they are affected by economic ups and downs. Market fluctuations are expected in the recycling business, but even industry experts say 2009 was different than anything they had seen before.

For recycling facilities, 2009 was a “good news – bad news” year in many ways. **GOOD NEWS:** Prices paid for materials reached historic highs in July 2008. **BAD NEWS:** Prices dropped an average of 75 percent by the time they hit bottom. **REALLY BAD NEWS:** Prices for some materials dropped 50 percent or more in one month in Fall 2008.

**BAD NEWS:** Meanwhile costs – such as labor, transportation, equipment – for recycling programs held steady or increased. When revenue drops significantly, but costs don't, organizations face three choices: find more revenue, cut costs or end the program. **GOOD NEWS:** Because there is more

to recycling than the bottom line, most recycling facilities in Arkansas focused on the first two choices.

**GOOD NEWS:** Recyclers rallied to sustain their programs during the tough economy. The Arkansas Recycling Coalition and the Arkansas Department of Environmental Quality brought recycling facility managers, employees and volunteers together in a series of meetings throughout the state to discuss the market collapse and share ideas for reducing costs while increasing revenues. ADEQ staff provided assistance before, during and after these meetings.

**GOOD NEWS:** In addition, ADEQ allowed recycling facilities to use Recycling and Solid Waste Management Grant funds for operating expenses. The department generally encourages facilities to use grant funds for buildings, equipment and other one-time expenses instead of on-going operations.

**REALLY GOOD NEWS:** Recycling facilities took the message to heart

and worked hard to keep programs running. Many made changes, doing their best to continue providing excellent service without breaking the bank. Some changes – no more employee overtime, using Recycling Grant funding for operations, sharing equipment or transportation with others – were fairly easy to make. Others – dropping routes, raising fees, not filling positions – were more difficult. But, as one Arkansas Recycling Coalition member stated: “We worked too hard to build these programs to allow this downturn to tear them apart.”

**BAD NEWS/GOOD NEWS:** Although prices paid for recycled materials probably will not reach the unsustainable highs of July 2008, they have crept up to more reasonable levels and may continue to increase in 2010. **REALLY GOOD NEWS:** With very few exceptions, Arkansas's recycling facilities – both public and private – will continue to provide services to the citizens of the state for many years to come.