

REGIONAL RECYCLING REPORT

NWA Recycles is a program of the Northwest Arkansas Council to better coordinate and improve local recycling services. It's made possible thanks to support from Walmart.





More than 41,000 tons

More than 41,000 tons.

That's how much material Northwest Arkansas' recycling programs handled in 2021, or 150 pounds for each adult and child in the metropolitan area. That comprises at least 1,000 tons of aluminum and steel, at least 1,000 tons of glass, more than 300 tons of electronic waste, more than 9,000 tons of composting, and more than 14,000 tons of cardboard and paper – and those figures in reality are higher, since many communities don't track material-specific information. In this report, you'll find descriptions and available data on 15 recycling programs that stretch throughout the region.

The Northwest Arkansas Council launched NWA Recycles in 2021 thanks to a grant from Walmart, with the goal of boosting the region's recycling. A major challenge to that push is a lack of data. Businesses looking to use recycled materials for the first time or in new ways often struggle to find out how much material is available and from where. Many don't have a full picture of what the recycling services have achieved.

But a challenge is also an opportunity. By telling the story of a program's success, more complete data can build public trust, attract business interest and make it possible to set new goals, ultimately leading to more and better recycling in Northwest Arkansas. This report is a tool to illustrate present successes and to build on them.

This report is the first in an annual series using data provided by the communities and recyclers. It's a start. Data isn't yet publicly available for most private recycling – that is, recycling that corporations handle on their own outside of public programs – or for other details, such as contamination rates and all materials' final destinations. Some communities have more detailed information than others, and many are combined with neighboring cities. Each datapoint nonetheless marks one step forward, helping Northwest Arkansas reach a more circular regional economy that conserves natural resources, powers local businesses and creates jobs.



THANKS TO OUR PARTNERS IN CREATING THIS REPORT

Bella Vista Recycling Center Benton County Solid Waste District City of Bentonville Boston Mountain Solid Waste District E-Waste Warriors City of Fayetteville City of Johnson LRS **ORE – Recovered Material City of Pea Ridge City of Prairie Grove City of Rogers City of Siloam Springs City of Springdale**

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Recycle [rē-'sī-kəl]

verb. to collect and process materials that would otherwise be thrown away as trash and turn them into a form that can be manufactured into new things.

This definition is broader than one might think:

Bottles and cardboard can be recycled, of course, but also electronics, clothing, food scraps, furniture, even construction and demolition debris. Almost any manufacturing material has at least some recycling potential. Only a select few make the leap from potential to reality, however, because the recycling recipe is one that takes several steps and needs several ingredients, as the following page explains.

PLASTIC

Collecting

After using (and sometimes reusing) recyclable items, residents turn them in according to their chosen recycling program's guidelines, such as by rinsing out bottles and cans and putting them in curbside carts or taking them to a community drop-off center.

Workers take the recyclables either by driving trucks to the curb or picking everything up from the drop-offs. These workers may be public employees or work for a private waste hauler, such as Republic Services or LRS (formerly Orion), that contracts with a household or community. Communities and hauling companies set those guidelines based on their needs and volume of material.

Returning

At this point the recycled material returns to retailers and other businesses, whether it's in car parts, food containers, scoops of compost, shipping boxes, circuit boards, insulation or carpet. These items may or may not be recyclable again. If they are, the cycle can keep turning.

Sorting

At some point, different materials are sorted out and divided. This happens right at the curb in Fayetteville, Prairie Grove and Siloam Springs. In other cases, the whole mix goes to a sorting facility, like Marck Recycling's materials recovery facility in east Rogers, which receives curbside recycling from Rogers, Springdale and many other cities.

Methods of sorting vary depending on the capabilities of the recycler and on the intended destination of the materials.



Selling & Shipping

Next, the recyclables must be prepared to ship. Sorting facilities often squeeze bottles, cans and cardboard into dense, stackable blocks called bales that fit nicely into semi-trailers. Other kinds of recyclers will disassemble electronics, stack tires or carefully gather and package hazardous household waste like batteries or fluorescent light.

Once ready, the recycler needs somewhere to send these materials – a buyer, or end market, that will take them. Every step is important, but this one may be most essential, because it decides the rules of a given program. Collectors might arrange sales on their own or rely on a local broker such as ORE.

Remaking

This is where recyclables finally change form. They'll be ground up, melted down, chopped into small pieces or otherwise digested into almost-raw ingredients for whatever shape they'll take next.

In many cases, a material will be remade into the same thing it was before – metal cans can be recycled into new metal cans over and over, and the same goes for glass bottles. Plastics and some other materials can recycle only a limited number of times before they degrade too much to reuse again.


What is a circular economy?



In nature, nothing is wasted. Life's building blocks cycle through plant, animal, fungi and microbe. Not even rock is immune to recycling.

NWA Recycles' guiding vision is to help make the economy of Northwest Arkansas more like nature – in other words, more circular. In a linear economy, people make things, use them and toss them, a straight line toward a dead end in the landfill. In a circular economy, the materials that flow into everyday products and services are re-collected, reused and remade.

The region's economy is largely linear for now. Yet several smaller circular economies already have taken root – businesses and other organizations that not only collect recyclable materials but put them back to work right here in our region, supporting jobs and conserving natural resources.

Some work with what one might call typical or commodity recyclables. Box and packaging makers like Smurfit Kappa and WestRock, for instance, use recycled cardboard and other paper in their local facilities.

Many others work with something more unusual. Take wood as an example. Anew Lumber Co. collects lumber, plywood, scrap metal and other materials left over from construction, makes some into furniture and resells the rest to manufacturers. And 2ndlifewood, a Fayetteville maker of handcrafted and custom wooden furniture, uses local trees that fall on their own or are taken down by development and tree removal companies rather than cutting any down itself. Branching out further, Lowell and Springdale manufacturer MoistureShield uses its plants to turn thin plastic films, such as shopping bags, and sawdust into durable composite decking that's sold through several local hardware stores. Northwest Rags in Springdale turns worn-out clothing into industrial rags for use by painters, restaurants and automotive shops.

Rogers-based eSCO Processing & Recycling is a destination of used electronics and e-waste from throughout the state and beyond. The company refurbishes some gadgets for resale and strips others into their constituent parts – precious metals, plastics, glass and so on – to ship to recyclers around the world. The nonprofit Free Geek Arkansas in Fayetteville plays a similar role on a smaller scale.

A growing composting network has sprouted from the city of Fayetteville's industrial-size composting facility. The city collects food scraps from residents and businesses in town through a variety of programs, while private companies Food Loops, Food Recycling Solutions and Ozark Compost & Swap extend residential and commercial composting to the region's other cities.

All of this carries several lessons. Local employers putting recycling at the core of their business models isn't some far-off idea; organizations of all kinds are making it work now. There's plenty of room for more like them. And it can happen with materials one might never expect.

Growing the Recycling Network

Northwest Arkansas' recycling achievements in 2021 can't be tallied in tons alone. The past year brought new and continuing partnerships, not least with the formation of NWA Recycles following months of discussion among the Northwest Arkansas Council, Walmart and the Benton County and Boston Mountain solid waste districts, among other stakeholders.

NWA Recycles immediately **began convening recyclers**, such as at the joint meeting of the two waste district boards in June to hear the results of an <u>extensive study into the region's recycling systems</u> and future possibilities. In July, dozens of community leaders brainstormed ideas for a region-wide recycling vision that could provide shared goals and benchmarks for years to come.

These and several smaller meetings allowed businesses, landowners, communities and other players in the recycling field to share insights, perspectives and hopes for the future of recycling in Northwest Arkansas.





IF YOU PUT FOOD WASTE IN THIS BUCKET... AND BRING IT TO ONE OF OUR DROP-OFFS.



Compost is food and yard waste that when mixed under the right conditions of heat and water creates a chemical-free, soil amendment that contains essential macro-nutrients.

RECOMES COMPOST

COMPOSTING RECENERATES SOL BY RESTORING MICROBES BACK INTO THE GROUND, AND IT CAN REVERSE SACK INTO THE GROUND, AND IT CAN REVERSE SACK INTO THE STRONGER, HEALTHER PLANTS THAT ARE THE ATMOSPHERE SOUL CASED AND AND AND AND AND AND THE ATMOSPHERE From August to October, NWA Recycles partnered with **Pick Up Where You Play**, a series of volunteer cleanups organized by local governments and volunteer groups throughout Benton and Washington counties' outdoor recreation areas. More than 500 volunteers ultimately collected roughly 6 tons of trash, filling dozens of bags of cans and bottles for recycling and keeping our rivers and trails clean.

In September, the annual Arkansas Recycling Coalition conference in Hot Springs gave Northwest Arkansas the chance both to learn from the rest of the state and to set an example. NWA Recycles and The Sustainability Consortium presented Northwest Arkansas' new recycling effort, and multiple local recyclers won recognition.

Boston Mountain and the city of Fayetteville each took home the coalition's Recycling Education Program of the Year awards for work in area schools and with composting. And E-Waste Warriors NWA came on top with the Community Involvement Award for 2021 for work boosting electronics recycling.

Finally, the Council's **Onward Ozarks** speaker series in December featured a panel of local recycling leaders, including e-waste processor eSCO Processing & Recycling and event composting and recycling provider Food Loops, to talk about the business side of recycling. Panelists highlighted their operations, took questions and described how small businesses can join the region-wide push for more and better recycling.

BUSINESS OWNERS:

Northwest Arkansas' solid waste districts provide free, no-obligation business waste audits to give a rundown of what your business throws away and suggest how to recycle more of it. In some cases recycling can bring reduced waste hauling needs and lower bills. Benton County Solid Waste District bentoncountyrecycles.org

clerk@bentoncountyrecycles.org 479-795-0751

Boston Mountain Solid Waste District

(Washington & Madison counties) bostonmountain.org recycle@bmswd.com 479-846-3005



For the numerical portion of this report, NWA Recycles sought data for 22 public and nonprofit recycling programs within the Benton County and Boston Mountain solid waste districts for the 2021 calendar year. Of those, full-year data was received from collections within 12 cities and the two waste districts. Recycling data includes collections of consumer packaging and containers – cans, bottles, boxes and paper, which are often referred to here as residential recyclables – as well as compostable materials, electronic waste, scrap metal and other materials when applicable.

The data is self-reported and varies in detail and scope. Some programs gave a blanket, total number of tons collected only, while others provided additional detail such as the composition of those tons and many of their end-market destinations. The solid waste districts provided tallies of materials shipped to end markets on the back end, while cities generally could only provide the tally collected from residents on the front end. For a given program, annual collections and later shipments can differ because of the removal of non-recyclable contamination and a time lag between the two (as illustrated by Fayetteville's data, which includes collections and shipments). Because these two categories of numbers are nevertheless closely related to each other and represent tangible materials, the two types of totals were added together to reach the region-wide totals collectively handled by these programs.

Data was reported via the Municipal Measurement Program online survey, developed by The Recycling Partnership and Re-TRAC Connect; shared directly with NWA Recycles; or a combination of both.

Many recycling programs cooperate with others, meaning their data overlaps to a small degree. These shared tons are included in the stated total for each individual program that played a role in their collection, meaning they essentially appear twice within this report, to illustrate each community's efforts and the impact of these partnerships. These cases are stated explicitly in order to avoid confusion and the appearance of double-counting. Every effort has been made to count those tons only once for the region-wide totals.

Benton County Solid Waste District

Tons shipped to end markets: 4,157*

Benton County Solid Waste District is the waste regulator throughout the county, licensing trash haulers and providing safe disposal of all kinds of waste. Tires, scrap, electronics, yard waste and glass from throughout the county come from the district to be processed and shipped for reuse (or composted, in the case of yard waste). Used tires represent a large portion of collections because waste districts, rather than individual cities, manage that material within their boundaries.



*Tons of residential recyclables that went to Rogers' drop-off and are also accounted for in Rogers data.

This number represents the amount shipped in 2021 rather than the amount collected, which isn't recorded. It also doesn't tell the whole story for the district. Collections of hazardous waste, like cleaners and other chemicals, aren't tallied by weight. Neither are the district's recycling drop-off trailers, which receive cans, bottles and cardboard in Bentonville, Centerton, Decatur, Garfield, Gentry and Gravette. Those trailers' contents go to the Rogers recycling center for weighing and processing and are therefore accounted for in that city's data.

Rogers' data also includes about 75 tons of cardboard, paper and plastic that were collected and tallied by Benton County. These tons appear twice in this report for this reason but are counted only once for the regional totals in the introduction.

See Rogers, page 18.



Recyclables shipped to end markets, in tons

Boston Mountain Solid Waste District

Tons shipped to end markets: 4,953

Boston Mountain Solid Waste District is the waste regulator for Washington and Madison counties, licensing trash haulers, responding to illegal dumping and providing recycling and other waste disposal services. These services include accepting residential recyclables: cardboard and paper, metal cans, glass jars and bottles, and plastic bottles marked #1 or #2. But tires, scrap metal, household hazardous waste (HHW), electronics and yard waste from throughout two counties also come to the district to be processed and shipped for reuse.

The district provides several services in partnership with individual cities. Fayetteville hosts a Boston Mountain hazardous household waste drop-off trailer that collected 17 tons, for example, and Fayetteville's composting facility was the destination for Boston Mountain's 140 tons of yard waste, which means those tons contribute to both organizations' figures. The same applies to 252 tons of curbside recycling collected by Prairie Grove, which goes to the primary Boston Mountain facility just west of the city. Boston Mountain also organizes e-waste and other recycling drop-off centers throughout the district. *See the table for more detail.*

Partnerships allow residents to recycle close to home but create the risk of double-counting their collections. As a solution, the overlapping amounts are shown both here and under the relevant city's section in order to illustrate the importance of the partnerships and to give communities credit for their recycling efforts. These tons are count only once toward *the overall Northwest Arkansas recycling total on page 2.*

Recyclables shipped to end markets, in tons



Destinations for materials after they're collected vary but include many local recycling businesses, including eSCO Processing & Recycling in Rogers for e-waste, TRG in Fayetteville and Rogers for metals, and Used Oil Service in Springdale for motor oil.

Recycling collected in partnership with select cities, in tons

	Residential	E-waste	ннพ	Yard waste
Elm Springs	6	3	N/A	N/A
Fayetteville	N/A	8	17	140
Johnson	4	1	N/A	N/A
Prairie Grove	252	N/A	N/A	N/A
Springdale	57	19	N/A	N/A
West Fork	23	1	N/A	N/A
Total	342	32	17	140

This table reflects tons that Boston Mountain and a given city collect together and that therefore are included twice in this report: both in Boston Mountain's recycling total and in the totals for each city.

Bella Vista

Total Tons Collected: 2,037

The Bella Vista Recycling Center is a nonprofit rather than a city- or waste district-run initiative. It runs a drop-off center just off of U.S. 71 but also picks up cardboard from several nearby businesses. It prides itself on accurate sorting of materials into a wide variety of categories.

This specificity makes these materials more valuable for manufacturers to reuse in several ways. Old cardboard gets remade into new cardboard. Various types of paper is made into insulation, tissue paper and egg cartons. Plastic bottles may be made into new bottles but also into carpet, clothing, even new recycle bins. Metals are melted down for new products. And textiles such as old clothing go into industrial rags.



Bentonville

Total tons collected: 2,955

The city of Bentonville contracts with a private hauling company, Republic Services, to pick up cardboard, paper, aluminum and steel cans, and plastic bottles and jugs marked #1 or #2 from single-family and small multifamily residences in the city.

Bentonville also provides a composting facility and hosts a Benton County Solid Waste District recycling drop-off container on Northwest A Street. The above tally includes curbside collections only, because the compost isn't measured and the drop-off container goes to the Rogers recycling center for processing and is included in that city's data.

See Benton County Waste District, page 12, and Rogers, page 18.

Elm Springs

Total tons collected: 184

The city of Elm Springs contracts with hauling company LRS (formerly Orion Waste Solutions) for its curbside recycling service, which accepts metal cans, cardboard, paper and plastic bottles marked #1 or #2. Residents turned in an estimated 175 tons curbside; it's an estimate because truck routes may sometimes go from one city to another and because of other factors. The city also hosted Boston Mountain Solid Waste District events to pick up e-waste and other recyclables.

See Boston Mountain, page 11, for more.



Fayetteville

Total Tons Recyclables and Compostable Organics Collected: 13,929

Recyclables Collected: 5,748 tons

The city of Fayetteville runs its own recycling collection services, including residential, curb-sorted pickup; community drop-off centers; and special programs for businesses and several participating apartment complexes. These generally take cardboard, paper, glass bottles and jars, aluminum and steel cans, and plastic bottles and jugs marked #1 or #2, but the city's South Happy Hollow Road drop-off also takes hazardous household chemicals and occasionally electronic waste as well. Bulky waste and other materials collected through city cleanup events may be recycled as well.



Recyclables Shipped: 6,569 tons

The city of Fayetteville sells materials to manufacturers in Northwest Arkansas and other nearby regions that use them in their products. (The city sold more than it collected in 2021 because of a lag between collection and sale.) While a breakdown by material type isn't available for what was collected, that information is available for these sales.

The bulk goes to end markets in Arkansas, including the Arkansas Kraft paper mill and Rogers Iron and Metal Corp. Destinations outside of Arkansas include Constellium in Alabama and Logan Aluminum in Kentucky for aluminum cans or Ripple Glass in Kansas City, which uses glass bottles to make fiberglass and new bottles.

Fayetteville, cont.

Recycling Collection Methods



Compostable Organics Collected: 8,181 tons

Fayetteville also has an extensive organics composting program for yard and food waste collected from city businesses, the University of Arkansas campus and other residents. Companies like Food Loops, Food Recycling Solutions and Ozark Compost & Swap bring food scraps from beyond city limits to Fayetteville's composting facility near South Happy Hollow Road.

The city sold 6,866 cubic yards of compost to local growers in 2021.



Johnson

Total tons collected: 186

The city of Johnson contracts with hauling company LRS for its curbside recycling service, which accepts metal cans, cardboard, paper and plastic bottles marked #1 or #2. Residents turned in an estimated 181 tons curbside; it's an estimate because truck routes may sometimes go from one city to another and because of other factors. The city also hosted Boston Mountain Solid Waste District events to pick up e-waste and other recyclables.

See Boston Mountain, page 11, for more.

Little Flock

Total tons collected: 125

The city of Little Flock contracts with hauling company LRS for its curbside recycling service, which accepts metal cans, cardboard, paper and plastic bottles marked #1 or #2. The figure above is an estimate, because truck routes may sometimes go from one city to another and because of other factors.

Pea Ridge

Total tons collected: 89

The city of Pea Ridge began offering residential curbside recycling pickup for the first time in April 2021 via a contract with Republic Services, which also picks up trash. More than 1,200 customers signed up to recycle aluminum and steel cans, paper, cardboard and plastic bottles and jugs marked #1 or #2. That comes to 140 pounds of recycling collected per customer from April to December, a strong first showing for the program.



Prairie Grove

Total tons collected: 270

Prairie Grove directly provides recycling pickup as part of its trash services within city limits, accepting typical residential recyclables such as cardboard, plastic bottles marked #1 or #2, and aluminum and steel cans. The program is intertwined with Boston Mountain Solid Waste District, whose primary facility is just outside city limits. Nearly all of Prairie Grove's tons go to Boston Mountain for processing and shipment to manufacturers. The city and district also hold occasional e-waste drop-off events together.

See Boston Mountain, page 11, for more.



This cup and other plastics may *look* recyclable, but bottles marked #1 or #2 are the only plastics you should put in your recycling bin.

Rogers

Total tons collected: 8,204

Rogers residents have access to a curbside pickup program through the waste hauler LRS that accepts steel and aluminum cans, cardboard, paper and plastic bottles marked #1 or #2 in their own curbside carts. A separate LRS service also picks up yard waste for mulching or other reuse. These curbside pickups account for roughly half of the tonnage above and go to Marck Recycling's

Rogers facility. Those collections aren't broken out by type of material.

The other half mostly comes to the city's recycling drop-off center north of downtown, which takes the same materials as well as polystyrene packaging and glass jars and bottles. Workers sort through the materials to remove non-recyclable trash and make sure the rest can be reused by manufacturers. See the pie chart for a breakdown of these collections by type.

The city total includes 5 tons of electronic waste collected by E-Waste Warriors, a volunteer group of Rogers high school students that holds occasional drop-off events. E-waste goes to Rogers-based eSCO Processing & Recycling.

Recycling center collections, in tons (excludes curbside)



The Rogers Hub of Benton County Recycling

Besides being available for Rogers residents, the Rogers drop-off center is a hub for the entire county, receiving material from Benton County Solid Waste District recycling drop-off trailers stationed in Bentonville, Centerton, Decatur, Garfield, Gentry and Gravette as well as directly from businesses and residents from those and other communities. These amounts cannot currently be separated from Rogers' overall collections and are part of the city total.



Siloam Springs

Total tons collected: 1,176

The city of Siloam Springs' own employees provide recycling pickup service for residents and businesses as part of their trash service. The public can also use the recycling drop-off center on Ashley Street. The materials collected include cardboard, paper, aluminum and steel, glass, and #1 or #2 plastic bottles and jugs.

Once collected, recyclable materials are sold to the industries that use them to make products. Most of the metal collected is steel, as in steel food cans and other scrap, and is melted down for new steel, for instance. And cardboard boxes are used to make new cardboard and other paper items.

Collections in tons



Springdale

Total tons collected: 3,246

Springdale contracts with Waste Management for its trash and curbside recycling pickup services for cardboard, paper, metal cans and plastic bottles marked #1 or #2. Nearly all of these tons came through the curbside program and went to Marck Recycling in Rogers for processing and shipment to manufacturers. The city also partners with Boston Mountain Solid Waste District to run a drop-off center on Mondays, Wednesdays and Fridays, which collected about 57 tons, and for a regular e-waste drop-off event at Arvest Ballpark, which collected almost 19 tons of electronics.

See Boston Mountain, page 11, for more.

West Fork

Total tons collected: 194

West Fork contracts with private hauler LRS to pick up residents' trash and recycling – specifically metal cans, cardboard, paper and plastic bottles marked #1 or #2. Residents turned in an estimated 168 tons curbside; it's an estimate because truck routes may sometimes go from one city to another and because of other factors. The rest included about 25 tons taken to the city drop-off center provided in partnership with Boston Mountain Solid Waste District and 1 ton of e-waste collected in town during a Boston Mountain cleanup event.

See Boston Mountain, page 11, for more.



What comes next?

Now that you've learned about Northwest Arkansas recycling in 2021, there are multiple ways to stay involved and push recycling further in 2022.

RESIDENTS

Learn more about your community's recycling program, connect with the organizations involved and find other resources at <u>NWARecycles.org</u>

Spread the word: Share recycling tips with friends and family members, and tell your local elected officials that you value recycling services.

BUSINESSES & ORGANIZATIONS

Sign up for a free waste audit with the contact information on page 8. You can also waste less and recycle more at your next event using the NWA Recycles event recycling toolkit available at **NWARecycles.org/Resources**

COMMUNITY LEADERS

Connect with NWA Recycle's program manager using the contact form at **NWARecycles.org** to find ways to improve your recycling program and its data, and join regional recycling stakeholder events throughout the year.