

2023 Solid Waste Progress Report

Table of contents

Glossary..... 1

Introduction 2

Progress towards state goals 3

Waste Reduction and Reuse 5

Recycling 6

Organics 12

Hazardous Waste 17

Outreach and Education 18

Waste-to-Energy and Landfill..... 21

Regulatory Initiatives 22



Glossary

Back-of-house: Kitchen, food preparation, dishwashing and storage areas of a commercial generator or large event venue with organics that are not accessed by customers or the public.

Designated list of contaminants: A list of materials that are not recyclable or compostable.

Designated list of organics: A list of organic material types (i.e., food scraps) that are suitable for commercial composting.

Designated list of recyclables: A minimum list of recyclable materials (i.e., paper, cardboard, cartons, metal cans, glass bottles and jars and plastic bottles containers and jugs) that haulers must accept and generators must recycle.

Generator: A person or business whose daily activities creates municipal solid waste.

Household hazardous waste: Waste items or products found in the home like aerosols, electronics, gasoline, household cleaners, lawn and garden products, light bulbs, motor oil, paints, solvents, and most products labeled dangerous, flammable, poison, combustible or corrosive.

Large event venue with organics: Public gathering with at least 300 people that generates one ton or more of municipal solid waste per week or contracts for eight cubic yards or more per week per location and generates organics in the back-of-house. Examples include concerts, fairs, festivals, community events, athletic tournaments and parades.

Large commercial organics generator: Certain commercial businesses and schools that generate one ton or more of municipal solid waste per week or contracts for eight cubic yards or more per week per location and generate organics in the back-of-house.

Minnesota waste management hierarchy: Preferred method of managing municipal solid waste in Minnesota as identified in state law (Minn. Stat §115A.02).

Municipal solid waste (MSW): Trash created by individuals and businesses.

Organics: Materials like food scraps, yard waste and compostable paper.

Per capita generation: How much solid waste each person in Dakota County produces.

Resource recovery: The process of converting MSW into energy.

Solid waste: Trash, recycling, organics, construction and demolition materials created by individuals and businesses.

Waste abatement: The practice of reducing, reusing, and recycling solid waste.

Waste diversion: Keeping waste out of landfills through waste prevention and recycling practices.

Introduction

The 2023 Solid Waste Progress Report provides an update on the implementation of Dakota County’s [2018 – 2038 Solid Waste Master Plan](#) (Master Plan), including progress toward state waste diversion goals and results for county waste management programs.

Minnesota Statute requires Twin Cities Metropolitan Area counties to have solid waste plans that identify strategies designed to meet waste diversion goals found in the Minnesota Pollution Control Agency’s (MPCA) Metropolitan Solid Waste Policy Plan. The MPCA’s [2016 – 2036 Metropolitan Solid Waste Management Policy Plan](#) (Policy Plan) sets objectives for the seven-county Twin Cities metropolitan area- each waste management method in order to achieve legislative goals, including the statutory goal to recycle 75 percent of total municipal solid waste (MSW) by 2030 (including organics recovery); pursuant to Minn. Stat. § 115A.551.

Table 1: MPCA 2016-2036 Policy Plan Twin Cities Area Objectives for Municipal Solid Waste Management (MSW)

Management Method	Dakota County 2022 Actual	Dakota County 2023 Actual	2025 Goal	2030 Goal	2036 Goal
Source Reduction & Reuse			3 percent	4 percent	5 percent
Recycling & Organics	55 percent	54 percent	68 percent	75 percent	75 percent
Resource Recovery	2 percent	2 percent	31 percent	24 percent	24 percent
Maximum Landfill	43 percent	44 percent	1 percent	1 percent	1 percent

Dakota County developed its Master Plan in 2018 to make progress toward the goal of recycling 75 percent of waste by 2030. The Master Plan demonstrates the county’s commitment to provide “A healthy environment with quality natural areas that protects and maintains natural resources for the health and enjoyment of current and future residents.” The Master Plan sets a framework for the county, residents, businesses, schools, municipalities, waste industry and others to properly manage municipal solid waste. Strategies focus on increased use of existing educational, regulatory and financial tools, increased accountability, partnerships and focused work in new areas such as multiunit residences and large-volume commercial generators.

Data for this report is from waste haulers, facilities, businesses, non-profits and cites. Final totals are subject to change after Minnesota Pollution Control Agency certification of the data.

Waste management summary



Dakota County’s waste management goals are guided by Minnesota’s waste management hierarchy, which tells Minnesotans to manage waste in a preferred order to best protect the environment and public health. From most preferred to least preferred, the order is to reduce (waste reduction), reuse, recycle, organics recycling, waste-to-energy (controlled incineration and disposal in landfills).

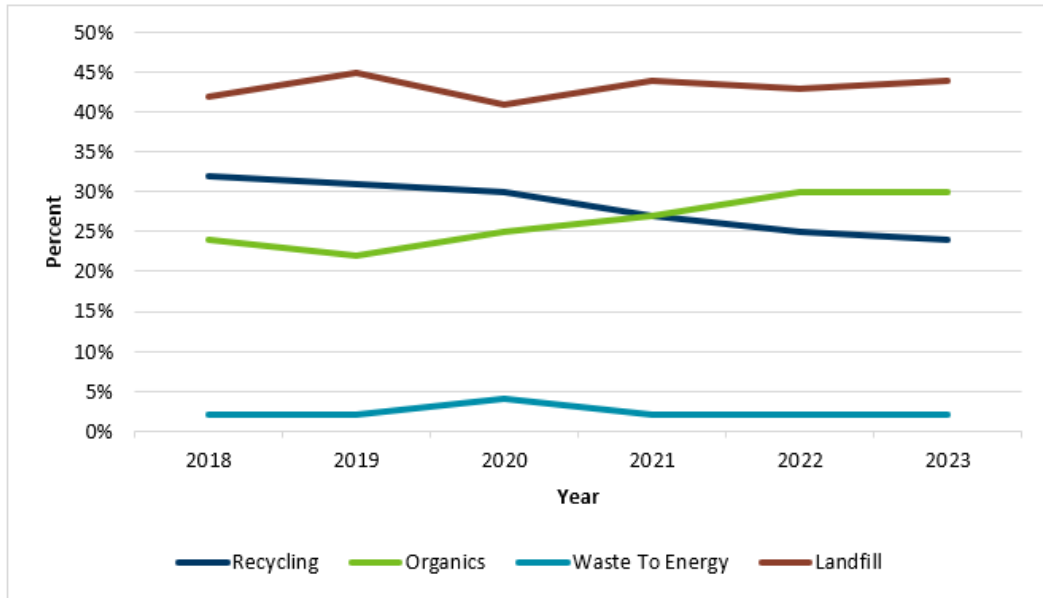
Progress towards state goals

The total generation of solid waste in 2023 was 498,684 tons or 2,229 pounds per person. Of the solid waste generated, approximately 118,443 tons were recycled, and 148,619 tons of organics were diverted. Together, 267,062 tons of solid waste were recycled (includes organics managed), equivalent to a 54 percent recycling rate. In addition, 11,871 tons of solid waste (two percent) were combusted for energy recovery and 220,676 tons of solid waste (44 percent) were landfilled.

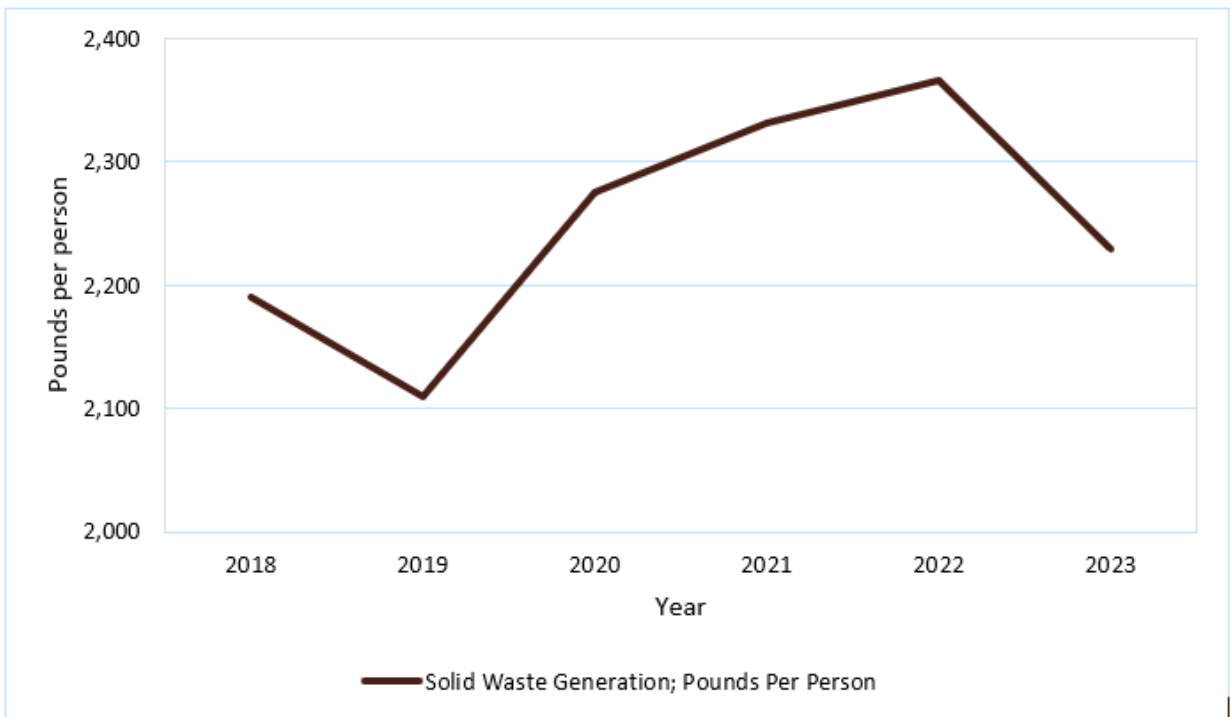
Table 2: Dakota County’s MSW management 2022-2023

Management method	2022 tons	2023 tons	Percent difference
Recycling	130,102	118,443	-9 percent
Organics	160,377	148,619	-7 percent
Resource Recovery	11,697	11,871	1 percent
Landfill	229,565	220,676	-4 percent
Total MSW Managed	524,511	498,684	-5 percent

Solid waste management methods (total percent) 2018 – 2023



Pounds of waste generated per person per year (2018-2023)



Dakota County Environmental Resources has programs dedicated to helping municipalities, residents, businesses, schools and county operations manage waste according to the waste hierarchy. This report highlights county programs and initiatives to properly manage waste and divert waste from unnecessary landfilling.

Waste Reduction and Reuse

Fix-It Clinics

Dakota County Fix-It Clinics provide free, hands-on assistance from knowledgeable volunteers to troubleshoot and repair broken household items. These events help build community and skills and keep items like clothes, small appliances, lamps and more out of landfills.

The county hosted 12 monthly clinics at rotating libraries and city locations. In total, 58 volunteers helped 704 residents repair their items. Of the 1,028 total items brought to the clinics, 83 percent were repaired onsite, or the resident was shown how to fix an item later. Repairs kept nearly 4,500 pounds of items from being trashed.

Community swaps and collections

The County's Community Waste Abatement Grant Program provides funding and resources to cities to host reuse opportunities for residents. With help from county funding, cities organized 24 collections for reuse, including two swaps for gardening tools, six clothing swaps or donation drives, seven athletic equipment collections, five puzzle swaps, three Halloween costume swaps and a bike collection.

Success Story: Outdoor Gear Swap

The county hosted the fifth annual Outdoor Gear Swap at Thompson County Park where residents could swap their outdoor gear for something new-to-them. Participants from 102 households brought a total of 179 items, giving 602 pounds of gear a new home. Remaining gear was donated to Ally Supportive Services, to help individuals facing housing barriers in Dakota County.

Reuse at The Recycling Zone

The Reuse Zone is located at The Recycling Zone, Dakota County's household hazardous waste and recycling drop off facility in Eagan. The Reuse Zone puts out usable items from residents for reuse. The items are stocked daily during open hours and residents can shop for free. In 2023, 337,889 pounds of items such as paint and household cleaners were reused by residents, saving the county \$185,839 in disposal costs.

Waste reduction in county operations

Dakota County auctions surplus furniture and office equipment on an as-needed basis. In 2023, the county conducted 28 successful public auctions. Items sold for reuse included file cabinets, benches, small machinery, a desktop lift station and office furniture.

Dakota County uses a technology for printing, copying and scanning that prevented 20,237 unnecessary printing jobs, saving 131,828 sheets of paper in 2023.

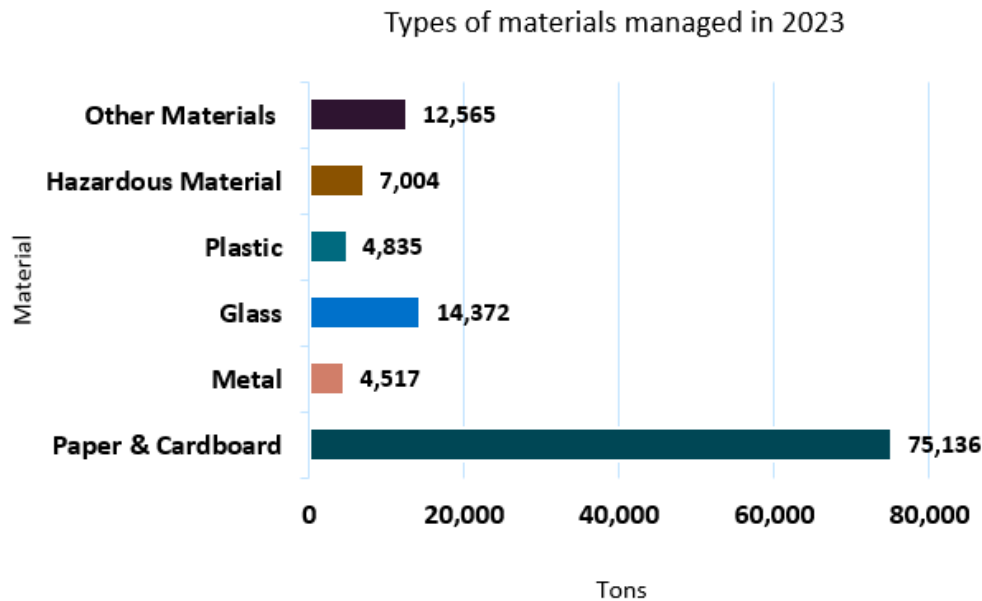
Reuse in school cafeterias

The county’s school recycling program and with additional funding from a MPCA waste reduction grant, the county helped schools switch from disposable cafeteria items to reusable ones and supported dishwashing improvements. Eight schools purchased reusable forks and spoons, six schools purchased stainless steel reusable trays and two schools piloted tray dryers.



Recycling

The Master Plan’s recycling strategies focus on all sectors – public, commercial, residential, schools and multiunit residential properties. The graph below includes what can be recycled in curbside carts and what can be recycled through special drop-off opportunities.



In 2023, the traditional recycling rate decreased by nine percent. Overall, Dakota County residents and businesses recycled 24 percent of their solid waste or 118,443 tons.

Compared to 2022,

Curbside recycling:

- Glass recycling increased by 7 percent (933 tons)
- Paper and cardboard recycling increased by 1 percent (590 tons)

- Plastic recycling decreased by 27 percent (1,767 tons)
- Metal recycling decreased by 35 percent (2,428 tons)

Drop-off only

- Hazardous material recycling decreased by 3 percent (201 tons)
- Other recyclable materials – appliances, tires, carpet, electronics, clothing, mattress/box springs and batteries decreased by 41 percent (8,641 tons)

The recycling amounts for certain materials has decreased. However, the amount of trash landfilled also decreased by 4 percent and the county generated 5 percent less total solid waste than 2022. Recycling rates are calculated by weight, and some materials, like plastics, continue to get lighter. Also, recycling rates tend to follow markets and manufacturing and production, especially with metals and special materials like appliances.

New technologies and processes have improved the ability to handle, sort and recycle materials, and more work is needed to maximize separation of recyclable materials from the trash. Recycling is made easy with Dakota County’s Designated List of Materials. This list was created to document the materials that are recyclable in curbside recycling containers—that all generators must recycle, and all haulers must collect and take them to a recycling center. Residents can feel confident that these items are getting recycled, and decreasing rates of specific materials does not mean these items are not recyclable.

Recycling in cities

Municipalities in Dakota County are required to implement solid waste abatement programs that align with the Master Plan. Through the Community Funding Waste Abatement Grant Program, Dakota County provides technical assistance and funding to 14 cities to implement residential recycling activities, such as recycling education, special collection events for challenging materials and recycling bins in public spaces. City staff:

- Educated 6,113 residents about recycling and waste prevention during 58 in-person community events.
- Mailed articles on recycling, hazardous waste, organics, and reuse to 161,136 single-family and multifamily addresses, reaching 100 percent of households located in these communities.
- Audited 432 municipal buildings, parks, and public spaces and verified that 341 have paired and labeled recycling and trash containers.
- Provided educational recycling messaging to every municipal employee.
- Held 68 special collection events for residents which kept 255 tons of recyclable or reusable material from the landfill. This includes 46 tons of shredded paper from 20 paper shred events, 69 tons of mattresses from 17 mattress collections, 6 tons of holiday lights, and 94 tons of scrap metal.

Success Story: Curbside mattress pickup for recycling and reuse

For the fourth year, Dakota County partnered with Certified Recycling in Burnsville to offer curbside pickup of mattresses and box springs at a reduced price from Memorial Day through Labor Day. Certified Recycling provides the discount and pick up services. The county promotes the mattress recycling option.



The high-quality, gently used mattresses and box springs were separated and donated to Bridging, a non-profit that helps families in need. The rest were disassembled and recycled.

In 2023, Certified Recycling completed 270 pickups and collected 529 mattresses and box springs. Five were donated to Bridging and the rest were recycled. Since 2020, this partnership has kept 2,547 mattresses, or 63 tons, out of the landfill.

Recycling in rural Dakota County

Dakota County provides an annual special recycling collection event for rural residents in the county's 12 townships and the rural cities of Coates, Empire, Hampton, Miesville, New Trier, Randolph and Vermillion. In 2023, residents delivered nearly 10 tons of mattresses, tires, cardboard and confidential documents to the collection event held at the County's Empire Maintenance Facility. In total, 123 rural households participated in the event. Dakota County partnered with the Metropolitan Mosquito Control District to sponsor waste tire recycling, the county's Sentence-to-Service program for work crew assistance, and Dakota County's Fleet Management for event location and planning.

Greenvale Township, Sciota and Waterford Townships used grant funding to host collection events for their residents. They collected nearly 10 tons of scrap metal, waste tires, cardboard and mattresses for recycling through the County's Rural Solid Waste Abatement Grant Program.

Success Story: Agricultural film plastic recycling

Dakota County partnered with Revolution Plastics to collect and recycle agricultural film plastic like silage bags, bunker covers, and greenhouse film. The county provided special collection bags to participating farmers and funding to Revolution Plastics to offset collection costs. Participating farmers brought 11,280 pounds of film plastic to two central drop-off locations for recycling.

Recycling at businesses

The county's business recycling program provides businesses and non-profits technical assistance and funding up to \$10,000 to implement waste reduction and recycling activities, including organics recovery. In 2023, the program served 86 businesses across a wide range of industries. The program helped 22 of those businesses secure more than \$110,000 in funding to improve waste reduction, reuse and recycling. County assistance helped businesses add more recycling containers, improve signage and labels, and switch to reusable service-ware and educate employees.

Success Story: Plastic boat wrap recycling

Because traditional recycling facilities are not equipped to handle bulky plastic films, each year, the county offers wrap collection for special recycling. The county partnered with Lighthouse Motorsports

and Marine in Rosemount and invited residents and boat marines to drop off plastic boat wrap at a centralized location.

Over 8,700 pounds of plastic boat wrap were collected and recycled—a 68 percent increase from the previous year. Over 44,000 pounds of plastic boat wrap have been collected since 2016.

The plastic boat wrap was taken to a local plastic film manufacturer to make it into new, useful plastic products such as construction-grade plastic film.

Recycling at multiunit residential buildings

The county’s multifamily recycling program provides technical assistance and funding up to \$10,000 to support recycling improvements in multiunit buildings like apartments, condominiums, townhomes and independent senior living. The county partners with cities to help promote and implement improvements like paired and labeled recycling and trash containers and tenant and staff education.

This program:

- Completed recycling improvements at 43 properties, 49 percent of which were low-income housing.
- Educated 1,048 residents on recycling through door-to-door outreach, group presentations and tabling events.
- Provided over 1,100 reusable tote bags, giving residents an easy way to collect and transport their recyclables to building recycling containers.
- Mailed recycling information to all multi-unit properties.



Recycling at schools

The county’s school recycling program provides technical assistance and funding up to \$10,000 to support recycling improvements in private and public schools. Fifty-five percent of K-12 schools in the county have participated in the program.

In 2023, the grant program awarded 10 grants to nine public schools to make the following recycling improvements:

- Added recycling containers including at three schools that were not previously separating recyclables.
- Added recycling containers to one high school stadium and two outdoor field complexes.
- Introduced a color-coded sorting table to help students sort their waste in the cafeteria.
- Collected cafeteria liquids and piloted a new style of cafeteria liquids collection container
- Provided stipends to teachers working with student Green Teams to make waste reduction and recycling improvements.

The county also offered free waste education opportunities like recycling performances and field trips. Performances used interactive puppet characters and music to inspire kindergarten through third grade students to reduce, reuse and recycle. In 2023, Tricia and the Toonies ENVIRO-SHOW performed 12 times.



Field trip busing is available for all fourth-grade students, Green Team students in fifth grade and above and school staff to visit a recycling facility, landfill or compost site. Dakota County provided field trip buses for six schools, nearly 437 total students.

9th Annual School Recycling Workshop

Dakota County hosted an annual free School Recycling Workshop, sharing information about waste management best practices. The workshop had a record 89 attendees. Presentations covered food scraps collection best practices to avoid contaminated organics, bagless recycling issues and solutions, proper vape device disposal and school recycling resources. Survey results showed that 100 percent of participants found the workshop valuable.

Success story: Free vape disposal resources provided to Dakota County schools

Dakota County Environmental Resources and Public Health departments partnered to develop resources to help schools properly store and dispose of vaping devices and electronic cigarettes. This partnership was formed in response to survey results about how schools store and dispose of confiscated vape devices. The county used the survey results to develop safe collection resources to reduce the risk of exposure and fires. The resources included online training, a new handout on vape disposal guidance for schools and a free vape disposal kit with a box, gloves and baggies. Vape devices are a regulated hazardous waste and cannot go in the trash or recycling. All public middle and high schools received a free vape disposal kit. Free vape disposal kits were provided to public charters schools who requested them. Dakota County delivered a total of 47 free vape disposal kits. This new program already has helped schools properly manage 664 vape devices.



Recycling in county operations

Dakota County buildings and parks continued required recycling improvements through its internal recycling program. Dakota County buildings and county parks

- Collected nearly 570 tons of recyclables.
- Ensured all recycling and trash containers, inside and outside remained paired and labeled.
- Provided standardized recycling education to county employees.
- Trained housekeeping contractors on recycling procedures and best waste management practices.
- Purchased recycled-content paper to support recycling markets.

Recycling at the Dakota County Fair

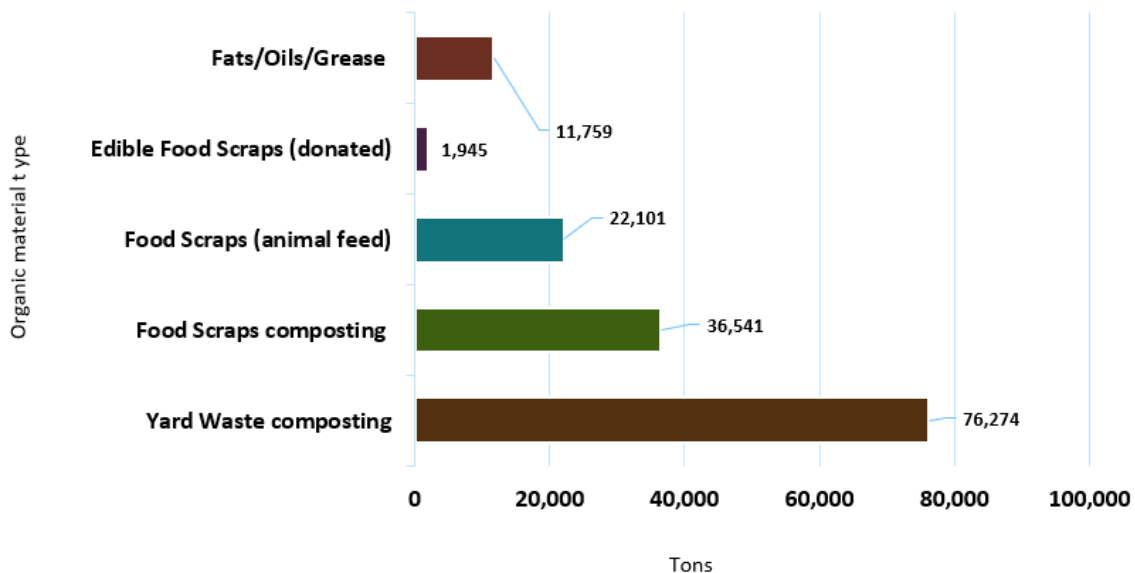
The county worked with the Dakota County Agricultural Society to help fair staff pair over 100 recycling containers with trash containers throughout the Dakota County fairgrounds, so recycling was easy and accessible to the more than 100,000 visitors.

Organics

Dakota County uses different methods to keep organics – food scraps, compostable materials and yard waste – out of landfills.

- Food waste composting at a commercial compost facility increased by 20 percent (+6,087 tons)
- Edible food donation decreased by 46 percent (-1,646 tons)
- Composted yard waste decreased by 16 percent (-14,343 tons)
- Fats, oils and grease collected for animal feed decreased by 6 percent (-777 tons)
- Food scraps made into animal feed decreased by 5 percent (-1,078 tons)

How organics were managed in 2023



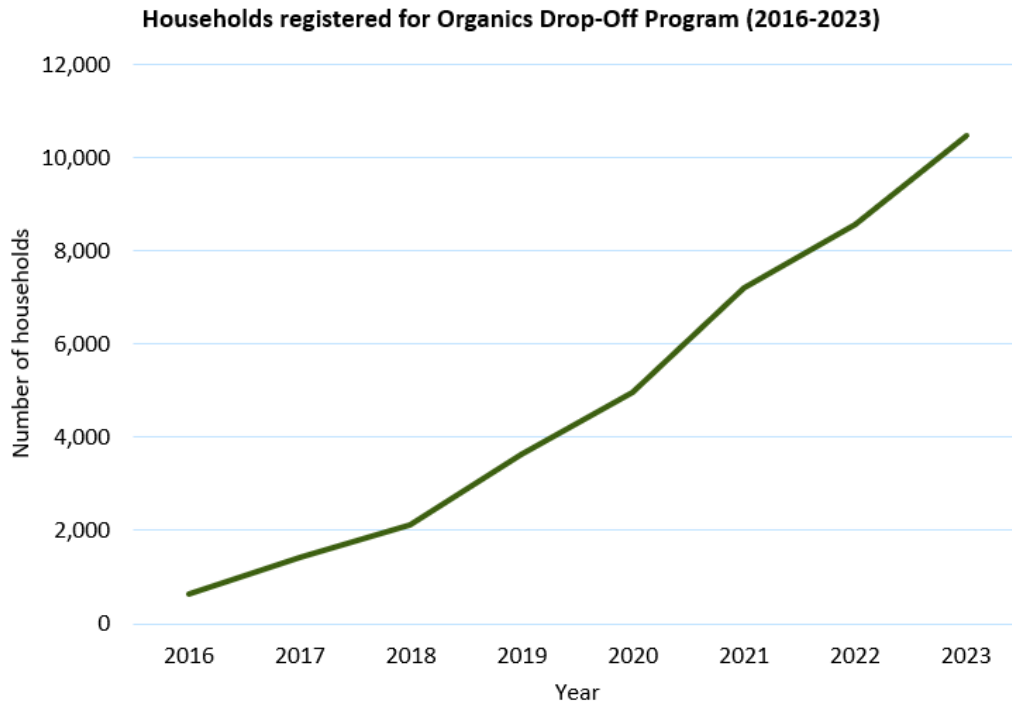
In 2023, total organics recovery decreased by seven percent. Overall, Dakota County residents and businesses diverted 30 percent of organics materials, or 148,619 tons, from the landfill.

Organics diversion for residents

The county partners with cities to provide residential food scrap drop-off locations throughout the county. Collected food scraps are composted at a commercial compost facility. Apple Valley and Inver Grove Heights each opened a new residential drop-off site, bringing the total to 11 drop-off sites in 2023.

In 2023, 1,362 new households joined the food scrap drop-off program, bringing the total to just under 10,500 registered households. Residents dropped off approximately 1,055 tons of food scraps and other compostable materials.

Residential Organics Drop -Off Program Registration



Food donation

Dakota County partnered with North Country Food Alliance to pilot a food rescue program at the Inver Grove Heights Farmer's Market. This resulted in over 16,000 pounds of fresh food diverted from the landfill. Recovered food was donated to five food shelves in Dakota County, providing people with healthy and nutritious options.



Collecting food scraps at the Dakota County Fair

The county helped food vendors keep food scraps out of the trash. All 64 food vendors received a guide and were offered a green bucket and compostable bags to collect food scraps from their food preparation. Eighty-five percent of food vendors participated. Dakota County has offered food scraps collection to food vendors at the Dakota County Fair since 2017.



Compost Week awareness

During international compost week (May 7-13), The county and volunteers offered opportunities for residents to learn about backyard composting and the county's Organics Drop-Off Program. The Mulch Store hosted an open house, attended by 50 residents, to see how food scraps can be composted and turned into a rich soil amendment.

Free compost delivered to schools

Dakota County provided free compost to interested schools that collect organics and have participated in the School Waste Prevention and Recycling Grant Program. Schools received up to five cubic yards of yard waste-derived compost at no cost. Schools that received compost soils and were encouraged to involve students in hands-on education to spread the compost.

- Twenty schools requested a total of 68 cubic yards of compost soils to use in their vegetable and flower gardens, on-site plantings, potted plants and to repair lawns.
- The number of participating schools increased and doubled the amount of compost requested from previous years.
- Survey results show that 100 percent of participants found the compost delivery valuable and 80 percent of schools had students help spread the compost.



Reducing food waste in schools

The school recycling program has incorporated best practices to prevent food waste in school cafeterias.

- Five schools implemented fruit slicers as whole fruit can be harder to eat.
- Two elementary schools launched food share tables. Students place packaged food, whole fruit and unopened milk cartons on these tables which are put back into cafeteria circulation or donated.
- Two schools improved flavor stations, allowing students to add spices and seasonings to their meals to make their food taste better.

Students learn about wasted food

The county presented to freshman at Burnsville High School's Science Technology Engineering and Math (STEM) Success Academy to talk about wasted food. The group discussed how food is produced, the impacts of wasted food, tips on reducing wasted food at home and at school and how to manage food scraps locally. STEM Success Academy students are expected to educate students on real world issues they can explore in greater detail and enables them to develop their own impact projects. Participating students received high school credit in Community Service Learning and English Language Arts for completing this summer leadership curriculum. A district translator was present during the discussion and interpreted for students whose primary language is Spanish.

County Road 96 transportation project

In the spring, Dakota County piloted the use of compost in a road improvement project along County Road 96. The project's goal was to learn how to best use compost in transportation projects and to document the benefits from using compost. The project used 819 cubic yards of compost. The county documented pre and post improvements in soil health (plant development and erosion control). Follow up soil testing is scheduled for fall of 2024.



Food waste challenge

The county hosted a Save the Food Challenge to teach residents how to reduce food waste by making simple changes in shopping, storing and preparing food. Preventing wasted food conserves the water, energy and other resources that went into making and processing our food.

Initially, 180 households signed up for the in-person and virtual informational sessions. The county provided tools to participants to help extend the life of their food, such as food storage containers and

silicone produce covers. Each week, participants tracked and submitted the amounts of food that they could have eaten but did not. Seventy households completed the challenge.

Overall, households reduced approximately 220 pounds of food waste per person each year.

Free pumpkin collection events

The county's Community Waste Abatement Program provided funding for cities to conduct special recycling and organics recovery collections. In November, several cities set up pumpkin collections at convenient community locations, allowing residents to convert their jack-o-lanterns into compost instead of sending large amounts of organic material to the landfill.

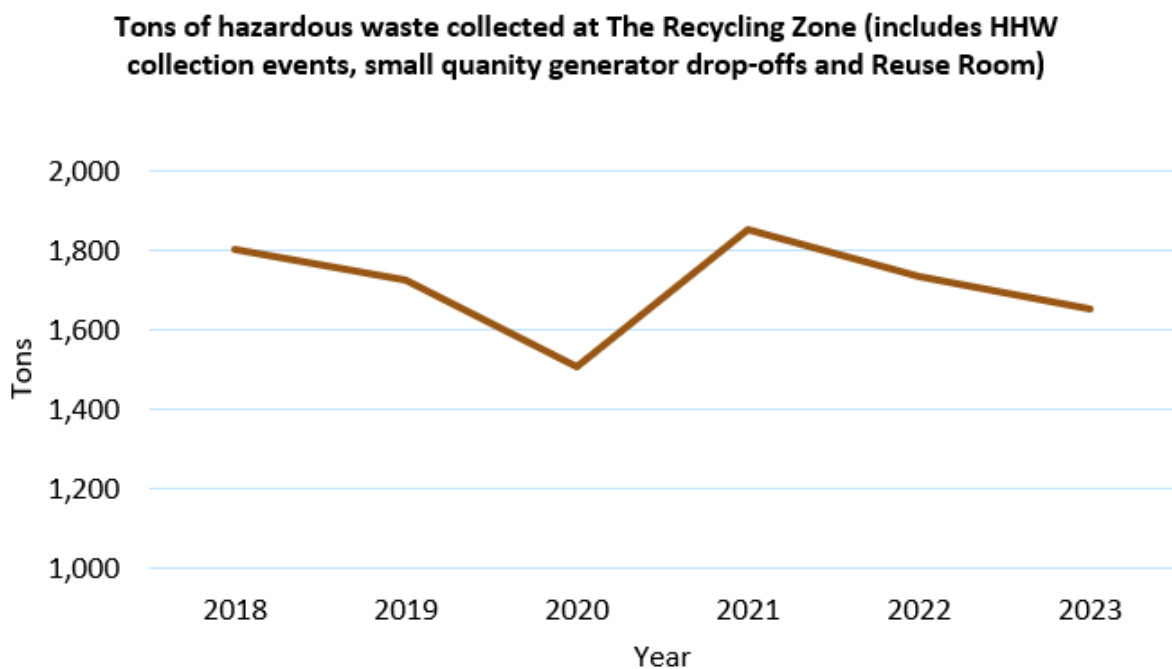
Cities collected 84 tons of pumpkins for composting, a 250 percent increase over the past five years.

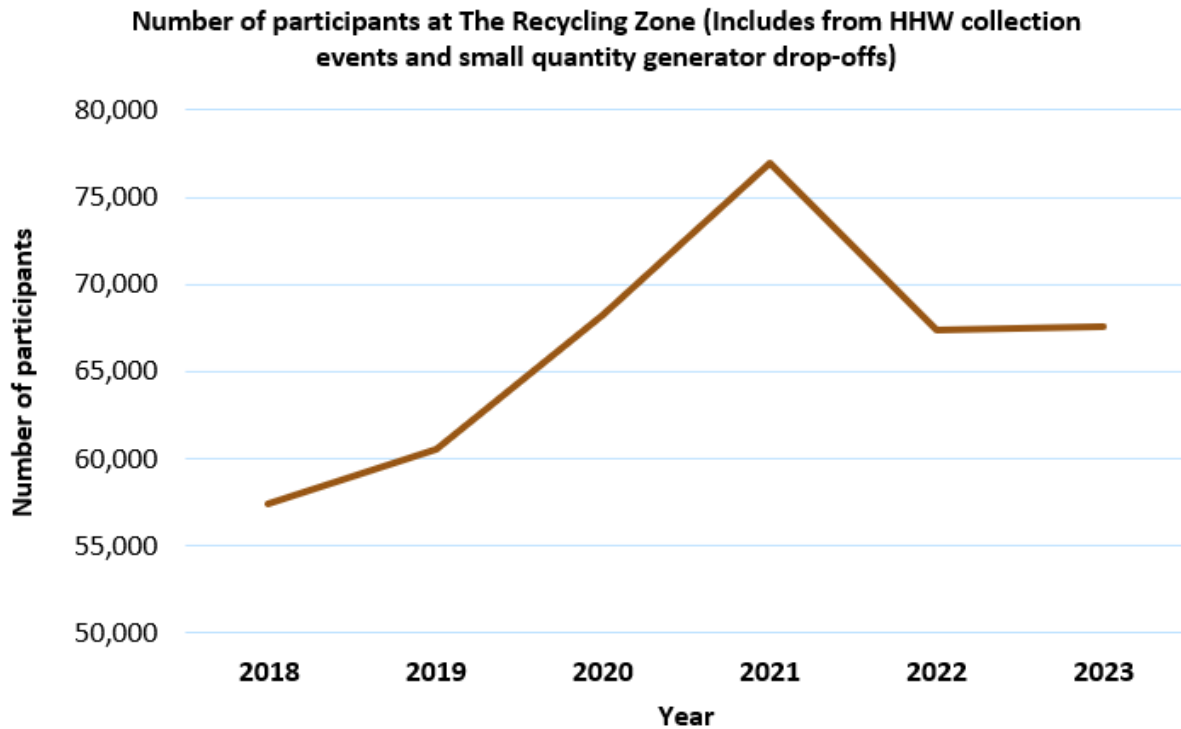


Hazardous Waste

The Dakota County Recycling Zone in Eagan provides a year-round, convenient location for residents to drop off household hazardous waste and other recyclable materials. In 2023, 66,354 vehicles dropped-off nearly 3.2 million pounds of hazardous waste, electronics, tires and recyclables for proper disposal, recycling or reuse and 331 businesses with small amount of hazardous waste dropped off 93,562 pounds of hazardous materials.

Dakota Valley Recycling and Dakota County held a one-day household hazardous waste collection event in Burnsville, collecting over 50,000 pounds of hazardous wastes and electronics from 925 households.





Outreach and Education

Recycling education supports the county’s solid recycling programs and activities.

Dakota County uses a variety of methods and tools to reach residents, businesses, multi-unit properties and schools. The county promotes waste reduction, reuse and recycling programs through educational tools on the county’s website, social media accounts and several program-specific e-newsletters.

The county develops messaging and education and requires cities to provide standardized recycling education to its residents via websites and printed newsletters. The county also requires licensed haulers to provide county-developed standardized recycling education to their customers.

Healthy Rural Living



Keep this handy resource for information and tips on recycling, waste reduction and conservation practices that can help build a healthier rural environment.



Recycling Awareness

Dakota County mailed the *What Goes Where* guide to every household. The guide contains useful information about reducing waste, recycling, organics, food waste prevention and how to get rid of bulky items like mattresses. The guide also highlights what happens to our recycling in Minnesota.



Recycling Ambassador Program

Dakota County renamed its Master Recycler and Composter Program to the Recycling Ambassador Program at the beginning of 2023. The changed name matches other program names in the metro and helps create a sense of belonging for all residents.

The Recycling Ambassador Program is a six-session training on all things solid waste. The goal of the program is to train participants to become recycling experts so they can then educate their peers. Participants receive a handbook that covers topics like waste reduction, recycling, composting, household hazardous waste and effective communication skills to create behavior change. Sessions feature hands-on demonstrations, regional experts and field trips. After graduating, Recycling Ambassadors are expected to spend 30 hours volunteering to educate their communities.

The class was offered in the spring and fall of 2023 and resulted in 36 graduates. Volunteer efforts included staffing informational booths, presenting topics and working on special projects in their neighborhoods, schools or workplaces. Over 450 residents have graduated from the program since 2014.

Table 3: Value of Recycling Ambassadors (volunteer hours, cost value and number of residents engaged) 2014-2023.

Year	RA Volunteer Hours	Hourly Cost Value*	# Of Residents Engaged
2023	1,110.48	\$30,205	4,531
2022	710.73	\$19,331	4,929
2021	562.5	\$17,013	3,140
2020	514.08	\$13,983	7,729
2019	1244.26	\$33,843	12,345
2018	1087.18	\$29,571	10,290
2017	716.75	\$19,496	7,812
2016	769.00	\$20,917	11,134
2015	637.50	\$17,340	10,451
2014	502.75	\$14,164	10,229
Total	3,583.18	*\$163,850	71,906

1 hour is valued at \$27.20.

County Gathers Feedback on Solid Waste Management Plan Strategies

The county began the process to revise its Solid Waste Master Plan, which will include strategies to reduce waste going to landfills, make progress toward the goal to recycle 75 percent of the waste by 2030 and carry out required strategies from the state.

The county conducted the first round of stakeholder engagement in the fall of 2023 to identify waste management barriers and opportunities. Feedback will be used to develop and refine Solid Waste Management Plan strategies in 2024. An external consultant led the engagement for key groups including residents, businesses, schools, solid waste facilities, public entities, reuse organizations, specialty waste management companies and waste haulers. In total, 955 people participated in the engagement.

Dakota County uses several platforms and programs to reach its communities:

Table 4: Dakota County's education and outreach activities and measures

	Education/Outreach Activities	Measurement Method
1	Environmental Initiatives educational webpages (Recycling Zone, Recycling Guide, Organics and Residential Recycling)	404,325 pageviews in 2023 (5 percent increase over the previous year)
2	Dakota County E-News Subscription Service (Residential, Business, Organics, Recycling Ambassadors, Fix-It Clinic, Haulers)	51 separate e-newsletters; 62,943 total views
3	City partners events	58 community events (up from 23 the previous year) educating 6,113 individual residents about recycling and waste prevention

4	Residential Organics trainings and open houses	<p>84 residents attended training sessions prior to the opening of two new organics drop-off sites, 67 residents stopped by two different Saturday morning kickoff events; 50 people attended an open house at the SET Commercial Compost facility.</p> <p>Before opening each new site, staff hosted three program training sessions, two in-person and one online, educating 84 residents. Another 67 residents stopped by kickoff events held at the new drop-off sites to see how the program works.</p>
5	Recycling Ambassadors	<p>36 new Recycling Ambassador's attended one of two 6-week courses (now at 456 Dakota County RAs). RAs reported volunteering 1,110 service hours during 2023.</p>
6	County Newsletter	<p>Waste reduction and recycling content was included in each county newsletter that was sent four times per year. The Healthy Rural Living newsletter was mailed to 6,200 households.</p>

Waste-to-Energy and Landfill

Waste-to-Energy

Waste converted into energy at resource recovery facilities increased by one (1) percent (174 tons). Just two (2) percent of trash generated in Dakota County was converted into energy.

Waste-to-energy partnership

State law requires public entities in in the Twin Cities Metropolitan Area to use waste-to-energy facilities prior to land disposal.

Over the last few years, waste to energy facilities in the metro area have closed or reached capacity. A very small portion of Dakota County waste was delivered to the Hennepin Energy Recovery Facility in Minneapolis and the Recycling and Energy Center in Newport. The City of Red Wing's Waste Campus is the closest waste-to-energy facility with capacity to accept a larger amount of waste from Dakota

County. Trash from the cities of Farmington and Hastings, and Dakota County's internal facilities was delivered to Red Wing Waste Campus.

Landfill

Landfilled trash decreased by four percent (8,889 tons) compared to last year. Forty-four percent of the trash generated in the county was delivered to a landfill. Due to the proximity of private landfills and limited capacities in metro area waste to energy facilities, the county continues to face challenges in meeting Policy Plan objectives to send a maximum of 1 percent of trash to landfills by 2025.

Regulatory Initiatives

Dakota County Solid Waste Management Ordinance (Ordinance 110) revisions were adopted in 2019 to implement the regulatory strategies in the Master Plan and support managing waste to align with the waste management hierarchy. Requirements will phase in through 2025.

Ordinance 110 changes included new recycling and waste management requirements for residents, commercial entities and the waste industry. Requirements are designed to standardize recycling and organics collection to:

- Reduce waste going to landfills by universally mandating source separation of recyclable materials;
- Improve the quality of materials recycling and organics collected with designated lists for recyclables, organics and contaminants; and
- Make progress towards the state's goal to recycle 75 percent of waste by 2030 with established best practices.

New 2023 requirements:

- Hospitals and schools, colleges and universities with dining service that (insert thresholds for large commercial organics generator definition) were required to separate back-of-house food scraps from other trash and ensure delivery for food recovery or to a permitted facility (e.g., compost or anaerobic digester facilities). These businesses and schools must also ensure organics containers are properly labeled and provide standardized education to staff. Businesses will be notified when they are required to submit an annual report to the county.

Regulatory staff prepared for the 2024 phase-in of the requirements for large commercial organics generators for office buildings with dining services, hotels, farmers markets, food shelves and food banks, nursing and residential care facilities, restaurants, shopping centers, airports, golf clubs and country clubs, public/rentable commissaries or shared use commercial kitchens, sports and event centers, caterers, large event venues with organics and other businesses identified by Ordinance 110.

Regulatory Compliance

The county continued to follow its strategic, multi-year Ordinance 110 implementation plan that prioritizes compliance outreach to businesses with the largest opportunities to help the county make progress towards the 75 percent recycling rate goal.

Commercial Generators: Businesses, schools, multiunit residential properties (4 or more shared units), governments

Requirements : All commercial generators must collect the designated list of recyclables and follow best management practices:

- Keep the designated list of contaminants out of recycling;
- Label containers in accordance with county label standards;
- Ensure sufficient collection schedules and capacities for all indoor and outdoor container locations, public spaces and commercial spaces;
- Ensure each trash container (or trash chute) is co-located within 10 feet from a recycling container (or recycling chute), ensuring equal access to both containers;
- Ensure trash, recycling and organics (if collected) is delivered to the appropriate permitted facility;
- Provide standardized waste abatement messaging in accordance with county education standards; and
- Annual report compliance on county forms. Businesses will be notified when they need to submit reports to the county.
- Multiunit properties need to maintain capacity on a weekly basis.

Regulatory Support: County solid waste inspectors have worked to educate commercial generators on becoming compliant with the recycling requirements above during routine inspections. Additionally, solid waste inspectors worked with certain large commercial organics generators become compliant in their back of house organics collection. This includes:

- Managing back-of-house food scraps through commercial composting, donation or food to animals.
- Providing properly labeled organics collection containers in back-of-house spaces and education to appropriate staff on organics collection requirements.

The county's hazardous waste compliance inspectors also supported the initiatives in Ordinance 110 by offering recycling compliance education and enforcement during their inspections. In addition, the county's business recycling program provides non-regulatory technical assistance and funding to help businesses implement recycling improvements to get into compliance.

Residential Generators

Requirements: All residential generators must collect the designated list of recyclables and keep the designated list of contaminants out of the recycling.

Regulatory Support: The County promoted standardized recycling education throughout the year using various communications channels.

Solid Waste Abatement Program

Requirements: All cities with a population greater than 10,000 people have adopted recycling requirements for multi-unit residential properties and large events in compliance with Ordinance 110 requirements.

Regulatory Support: The county hosted regular meetings with cities to share compliance and enforcement procedures and successes for multi-family residential buildings and event recycling requirements.

Waste Haulers

Requirements: Haulers are required to collect residential recycling on a weekly basis (limited exemptions apply in rural parts of the county) and label all trash, recycling and organics containers according to the county's labeling standards in Ordinance 110.

Regulatory Support: All haulers received an annual site inspection by the county. Inspections covered all hauling requirements. The county remained focused on hauler collection and transportation data reporting to continually improve data quality and accuracy. The county also continued to provide licensed hauling organizations with e-newsletters containing standardized education and messaging requirements, licensing terms and residential waste abatement initiatives occurring in the communities they serve.