

DRAFT 2027 State Solid Waste Management Plan



Division of Materials & Waste Management

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Chapter 1: Introduction

Ohio's original state solid waste management plan was adopted in 1989 to establish a comprehensive system for managing solid waste and to address the serious environmental, regulatory, and capacity challenges the state faced in the 1980s.

House Bill 592, signed into law on June 24, 1988, modernized Ohio's solid waste regulatory framework and established solid waste management planning to be implemented at both the state and local government levels. House Bill 592 emphasized the need to reduce Ohio's reliance on landfills for the disposal of waste by increasing solid waste reuse, recycling, and minimization efforts.

Table 1-1: Solid Waste Planning Provisions in House Bill 592

Provision	Description
State Solid Waste Management Plan (ORC Section 3734.50)	Requires the director of Ohio EPA to adopt a state solid waste management plan.
Materials Management Advisory Council (ORC Section 3734.49)	The council assists the director in preparing and approving the state plan.
Solid Waste Management Districts (ORC Section 3734.52)	Requires each county (individually or jointly) to establish a solid waste management district.
Solid Waste Management Plans (ORC Section 3734.53)	Requires each district, through a policy committee, to prepare, adopt, and submit a solid waste management plan to Ohio EPA.

Materials Management Advisory Council

In 2015, Ohio's 131st General Assembly created the Materials Management Advisory Council by combining the Solid Waste Advisory Council with the Recycling and Litter Prevention Advisory Council. Pursuant to ORC section 3734.49 the Materials Management Advisory Council advises the director of Ohio EPA on the preparation of the state solid waste management plan, approves the plan, and conducts an annual review of the implementation of the plan.

The Materials Management Advisory Council’s primary purpose is to provide advice and guidance to the director of Ohio EPA on solid waste issues, including updates to the state solid waste management plan and the agency’s recycling and litter prevention grant programs. The council is also tasked with facilitating partnerships that expand markets for recycled commodities.

The Materials Management Advisory Council is comprised of 13 members appointed by the Governor to serve three-year terms. The composition of the council is designed to include key stakeholders in Ohio’s comprehensive solid waste management system and includes representatives from:

- Solid Waste Management Districts;
- Health Districts;
- Counties;
- Municipal Corporations;
- Townships;
- A statewide environmental advocacy organization;
- Private sector industries;
- The general public.

State Solid Waste Management Plan

The intent of the state solid waste management plan is to reduce Ohio’s reliance on using solid waste landfill facilities to manage solid waste. The state plan establishes waste reduction and recycling goals for both the State and local solid waste management districts. ORC Section 3734.50 defines eight required elements for the state plan.

Table 1-2: State solid waste management plan elements

Element	Description
Reduce landfill reliance	Reduce reliance on landfills for managing solid waste.
Waste reduction and recycling objectives	Establish objectives for solid waste reduction, recycling, reuse, and minimization at the state and local level
Landfill disposal restrictions	Establish restrictions on waste types that should not be landfilled when alternative management methods exist.

Facility siting criteria	Establish revised general criteria for locating solid waste facilities.
Ash disposal alternatives	Examine alternative methods for disposing of fly ash and bottom ash from burning mixed municipal solid waste.
Scrap tire management strategy	Establish a statewide strategy for managing scrap tires.
Household hazardous waste program	Establish a program for the proper separation and disposal of household-generated hazardous waste.
Market development	Develop recommendations to promote recycled-content markets and state government purchasing of recycled-content products.

Solid Waste Management Districts

ORC section 3734.52 requires the board of county commissioners of each county in Ohio to be a member of a solid waste management district or regional solid waste management authority, either individually or in conjunction with one or more other counties. Currently, Ohio's 88 counties are organized into 52 solid waste management districts and authorities, including 33 single-county districts, 4 single-county authorities, 14 joint districts and 1 joint authority consisting of two or more counties. The number of counties in joint county districts or authorities ranges from two to six counties. This document uses solid waste management district to mean both solid waste management districts and regional solid waste authorities. The map in **Figure 1-1** delineates the jurisdictions of the 52 solid waste management districts.



White counties denote single-county SWMDs. Colored counties denote multi-county SWMDs.

Figure 1-1: Map of Ohio's Solid Waste Management Districts

Each solid waste management district is required to prepare and implement a solid waste management plan covering at least 10 years. This plan must account for how all solid waste generated within the district will be managed over the life of the plan. The solid waste management plan must also demonstrate how the solid waste management district intends to achieve the state plan's goals. Plans are prepared in accordance with the requirements in ORC Section 3734.53, OAC Rule 3745-27-90, and a format prescribed by Ohio EPA (the Solid Waste Management District Plan Format). The format acts as instructions for preparing a plan.

Changes and Trends Impacting Waste Management Practices

Convenience Centers for Hard-to-Recycle Materials

Throughout the state, recycling convenience centers and Centers for Hard-to-Recycle Materials (CHaRM) facilities have been growing in popularity. These facilities are specialized recycling drop-off locations designed to accept items that are not handled by regular curbside or single stream drop-off programs. CHaRM facilities often accept appliances, scrap tires, electronics, automotive fluids, plastic film, batteries, household hazardous waste, expanded polystyrene foam and other complex materials that require special handling and cannot safely enter standard recycling streams. As more Ohio counties expand recycling options,

CHaRM facilities can provide a reliable, accessible solution for managing these harder-to-recycle items, reducing contamination, and improving overall system efficiency.

Batteries

Improper disposal of lithium-ion batteries has created significant safety and operational challenges for Ohio's solid waste and recycling systems. Fires caused by lithium-ion batteries placed in household trash or curbside recycling have become increasingly common during waste collection, transport, and processing. As more everyday products contain embedded and rechargeable lithium-ion batteries, a growing number of batteries are entering the waste stream. Unlike traditional alkaline batteries, these newer, energy-dense chemistries are more volatile when damaged, creating a higher risk of fires and other hazards across Ohio's waste management infrastructure.

Ohio's Housing Market Shifts

In recent years, multifamily housing construction in Ohio has significantly outpaced single family home construction. This surge highlights ongoing challenges with recycling in multifamily buildings. Ohio's shifting housing patterns carry important implications for statewide solid waste management. The continued expansion of multifamily housing will increase demand for shared collection systems, higher-capacity containers, and more frequent service, all of which require coordinated planning between local governments, haulers, and property managers. Multifamily properties also historically experience higher recycling contamination rates, creating additional pressure on material recovery facilities and necessitating targeted outreach, standardized container design, and stronger enforcement strategies. Slower growth in single-family housing may limit expansion of traditional curbside programs, while greater population turnover associated with multifamily units is likely to increase bulky waste, household goods disposal, and illegal dumping concerns.

Solid Waste Generation

Generation is calculated by adding together waste that was disposed of and waste that was recycled. Recycling data is reported to Ohio EPA by solid waste management districts through the annual district report. Solid waste management districts obtain the recycling data by surveying communities, businesses, industries, and other entities that recycle. Disposal data is reported to Ohio EPA by owners and operators of solid waste facilities through an annual operational report.

Generation Trends

Ohio EPA's data shows that residential and commercial solid waste generation increased steadily from 2015 to 2025, rising from just over 13 million tons to about 16 million tons. The data show consistent growth throughout the decade, indicating a sustained upward trend in waste generation. In 2025, the residential and commercial waste generation rate was 7.35 pounds per person per day.

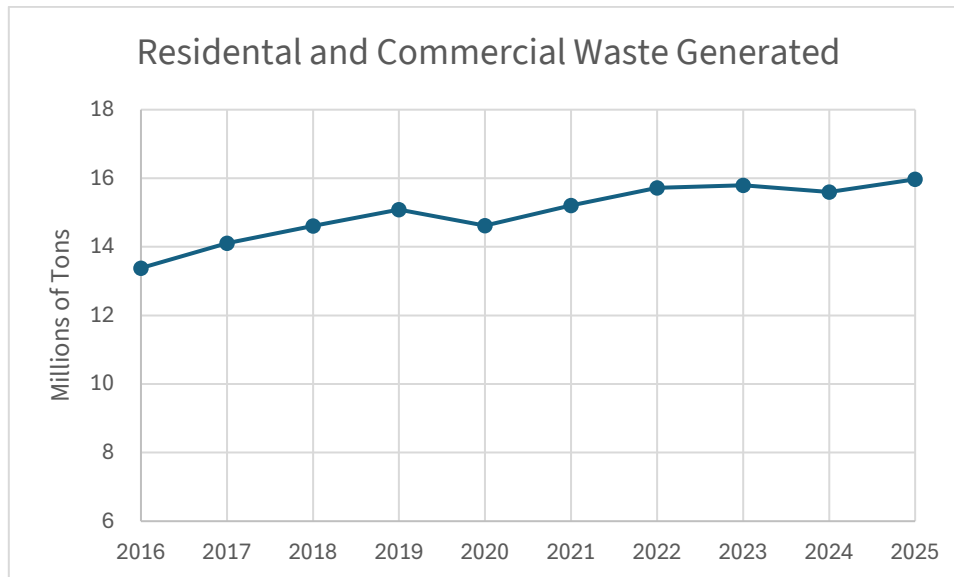


Figure 1-2 Residential and Commercial Solid Waste Generated 2016-2025

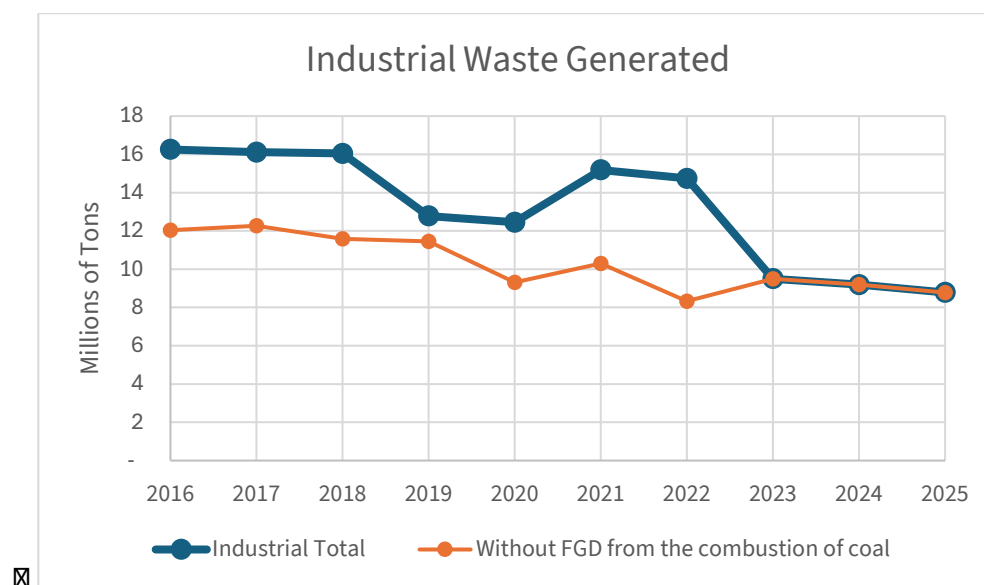


Figure 1-3 Industrial Solid Waste Generated 2016-2025

Figure 1-2 shows that residential and commercial waste generation in Ohio has increased over the past decade.

Figure 1-3 splits industrial waste generation into total tons reported and that amount minus flue-gas desulfurization and non-toxic bottom and fly ash generated from the combustion of coal. Those wastes were no longer reported from 2023-2025.

Solid Waste Disposal

Municipal solid waste - In 2025, 37 licensed municipal solid waste landfills disposed of 11.59 million tons of Ohio-generated solid waste. This led to a disposal rate of 5.33 pounds per person per day.

Industrial and Manufacturing Waste - In 2025, industrial and manufacturing waste landfills disposed of more than 4.34 million tons. This included 4 residual waste landfills operating as captive landfills, as the owning company is the only one permitted to dispose of its waste at the facility.

As seen from **Figure 1-3** and **Figure 1-5**, until 2022, Ohio-generated industrial and manufacturing waste has slowly declined as industries continue to increase efficiency and decrease waste.. Flue-gas desulfurization from the combustion of coal, had the greatest impact on statewide industrial and manufacturing waste disposal totals. .Beginning in 2023, the IMW landfills disposed of other types of industrial and manufacturing waste. In 2023, Ohio ceased regulating IMW landfills which disposed of FGD from the combustion of coal, and as a result the number of IMW landfills reporting data to Ohio EPA under the IMW rules decreased. Pursuant to ORC section 3734.48, as of October 23, 2023, Ohio EPA did not require these IMW, residual landfills previously subject to OAC Chapter 3745-30 that received FGD, nontoxic fly ash, and nontoxic bottom ash resulting from the combustion of coal to renew licenses beginning in 2024.

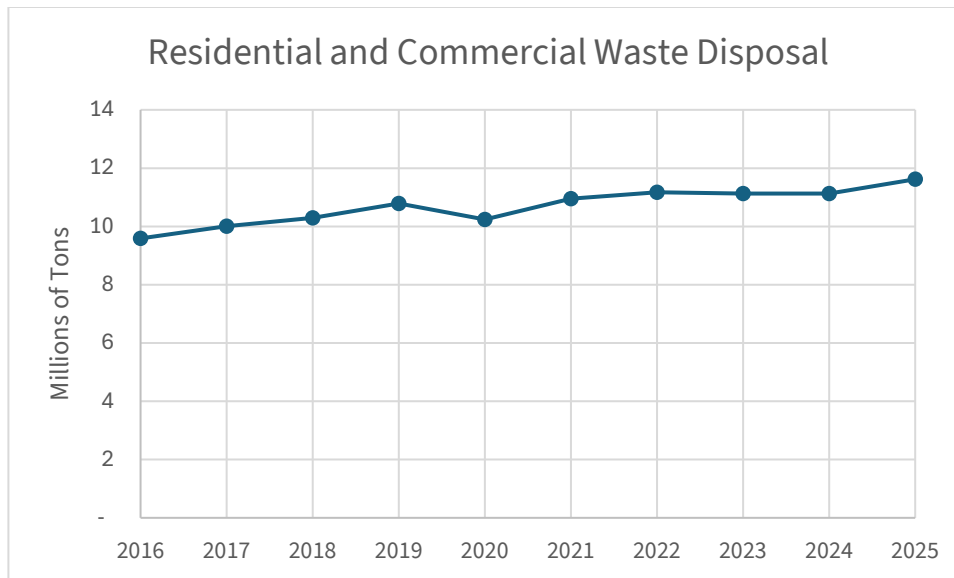


Figure 1-4: Ohio Generated Waste Disposed 2016-2025 Residential and Commercial

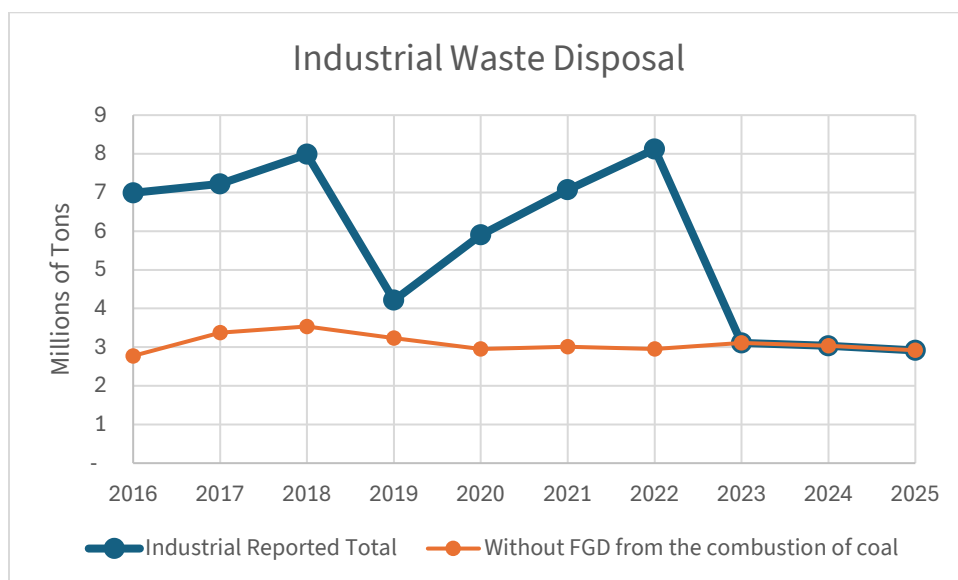


Figure 1-5: Ohio Generated Waste Disposed 2016-2025 Industrial

Solid Waste Disposal Capacity

At the end of 2025, Ohio had 37 operating MSW landfill facilities with a remaining gross permitted disposal capacity of 790,317,125.00 cubic yards. If the amount of waste disposed of in 2025 in Ohio landfills remained constant and no additional landfill capacity was approved, Ohio has enough disposal capacity at permitted and licensed facilities for 34.86 years.

Imports and Exports of Waste

Figure 1-6 represents the annual quantities of waste imports and exports from 2016 through 2025. Imported waste data includes solid waste and construction & demolition debris. Overall, the figure illustrates significant and continuous growth in imported waste, accompanied by relatively stable export levels that remain substantially lower than imports throughout the timeframe.

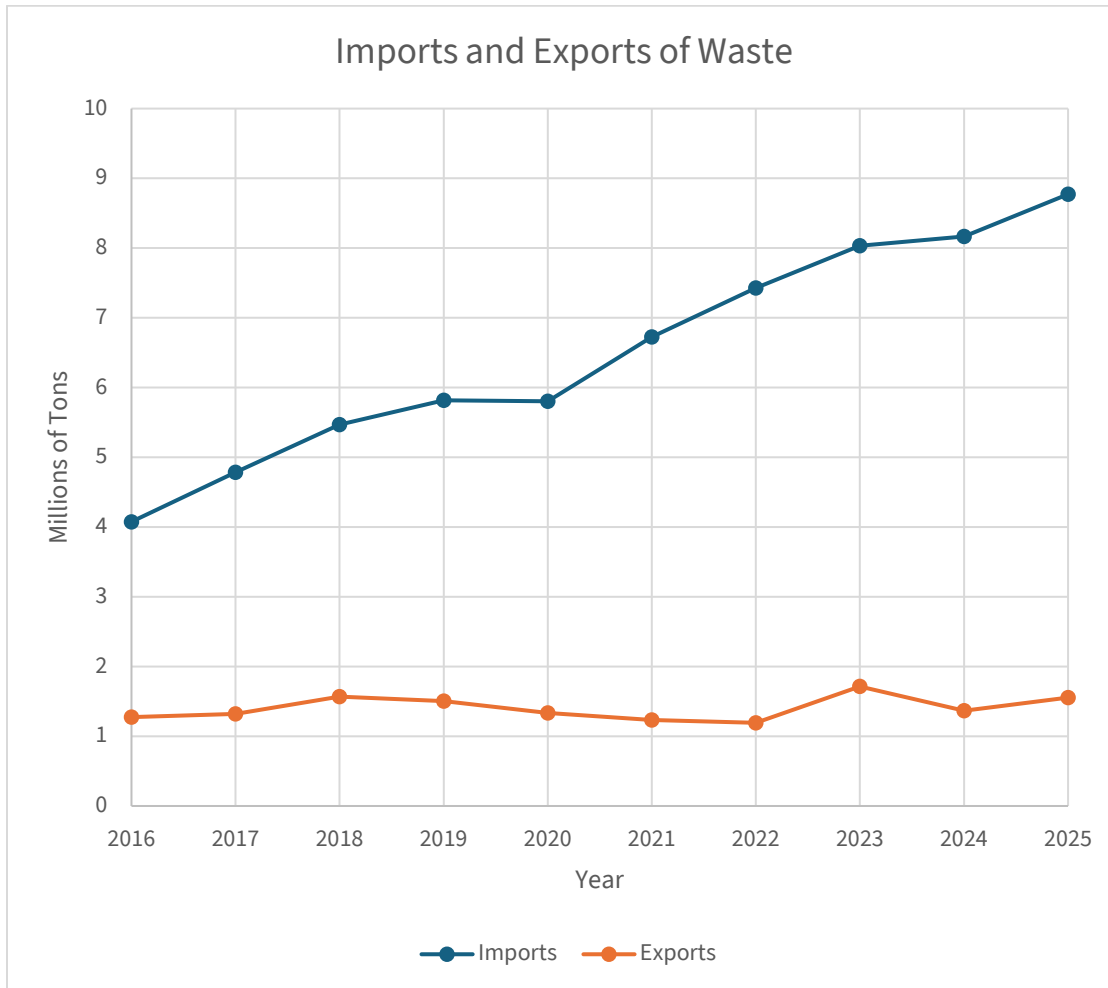


Figure 1-6: Imports and Exports of Waste (2016 to 2025)

From 2015 through 2025, the largest quantities of imported waste consistently originated from states in the Northeast, with New Jersey and New York remaining the most significant sources throughout the period. Together, these two states account for a substantial share of all out-of-state waste received by Ohio each year. Other states that routinely send large

volumes of waste to Ohio include Pennsylvania, Connecticut, Massachusetts, and West Virginia.

Ohio also exports waste to neighboring states. Waste is typically exported when disposal facilities in contiguous states are geographically closer or more accessible to certain Ohio communities. Ohio remains a net importer of waste throughout the 2016–2025 timeframe.

Chapter 2: Progress Made Since 2020 State Solid Waste Management Plan

Since the adoption of the 2020 State Solid Waste Management Plan, Ohio has made significant progress toward achieving its reduction and recycling goals. Several of the initiatives that led to that progress are described in this chapter.

While Ohio has made meaningful progress, continued effort is needed to address emerging challenges. This update to the state solid waste management plan outlines strategies to expand recycling, strengthen organics diversion, support market development, and improve data collection. Collaboration, technical assistance, and strong community engagement will be vital to achieving these goals.

Ohio EPA Initiatives

Recycling Contamination

Recycling contamination continues to pose a challenge for Ohio communities, reducing the value of collected materials, increasing processing costs, and creating inefficiencies across the recycling system. To address these issues, Ohio EPA has advanced several targeted, data-driven initiatives aimed at improving recycling quality and reducing contamination at both drop-off sites and curbside collection programs.

Curbside Recycling Cart Tagging Study

Ohio EPA awarded a grant to The Recycling Partnership to implement a contamination reduction campaign to improve the quality of material collected through curbside recycling services. The campaign, conducted in 2019, was a partnership among Ohio EPA, The Recycling Partnership, Rubicon, material recovery facilities, solid waste districts, and communities. The campaign involved auditing curbside contamination, giving residents direct feedback, and improving recycling behavior through a multi-week cart tagging effort and public education. Over eight weeks, auditors inspected recycling carts at more than 18,000 households using Rubicon's routing software, tagging carts for common contaminants such as plastic bags, bagged recyclables, and to-go containers, and delaying the emptying of carts until the homeowners removed the contaminants. Auditors found that one in four carts had contamination.

As a result of the study, clean recycling increased by 10% from the first tagging event to the last, total tag frequency dropped 26%, and the presence of major contaminants, especially bagged recyclables and plastic bags, declined sharply. Further, household participation in curbside services averaged 61%, and most households responded positively to feedback. Several communities have since replicated this model through Recycle Ohio Grant funding, including Lorain County, Sidney, Bexley, and Butler County. Overall, the study demonstrates that targeted, data-driven tagging programs can meaningfully reduce contamination, reveal neighborhood-level behavior patterns, and strengthen local recycling systems when paired with consistent outreach and education.

Statewide Drop-Off Recycling Quality Improvement Program

Ohio EPA partnered with The Recycling Partnership to launch the statewide Drop-Off Recycling Quality Improvement Program aimed at reducing contamination and increasing participation in community recycling drop-offs. With \$350,000 in support from Ohio EPA, the program provided grants, technical assistance, training, and data analysis to help communities strengthen their drop-off systems. The initiative set a goal of reducing contamination by 25% and improving material capture. Three regional grantees served six counties and 123 communities enabling collaboration among solid waste management districts, material recovery facilities, haulers, nonprofits, and industry partners. During the program, crews interacted with more than 4,000 residents while supporting nearly 191,000 households. Participating solid waste management districts saw measurable reductions in common contaminants such as bagged recyclables, plastic bags, and film.

The strong interest from local communities and positive outcomes demonstrate the value of continued investment in recycling quality, positioning Ohio to expand these strategies and advance broader goals for reducing contamination and strengthening the state's recycling system.

Cardboard Market Development

The cardboard market development initiative, coordinated by Circular Ventures, sought to advance one of the 2020 State Solid Waste Management Plan priority materials by strengthening partnerships among paper mills, Ohio EPA, solid waste management districts, and local communities to improve cardboard recovery. Beginning in July 2022, Ohio EPA, Circular Ventures, the Materials Management Advisory Council, and Organization of Solid

Waste Districts of Ohio reached out to Ohio paper mills to engage them in discussions. Ohio EPA and Circular Ventures met with Greif, Pratt Industries, and Integrity Fiber to understand their operations and identify ways to increase cardboard recovery within their roughly 50-mile service areas. Regional meetings in February 2023 connected mills with nearby solid waste management districts, established project goals, and opened communication channels before Ohio EPA stepped back to allow direct collaboration. Following the initiative, Greif reported successful collaborations with the Coshocton, Fairfield, Licking, Perry Joint Solid Waste Management District, the Delaware, Knox, Marion, Morrow Joint Solid Waste Management District, and the Richland Regional Solid Waste Management Authority.

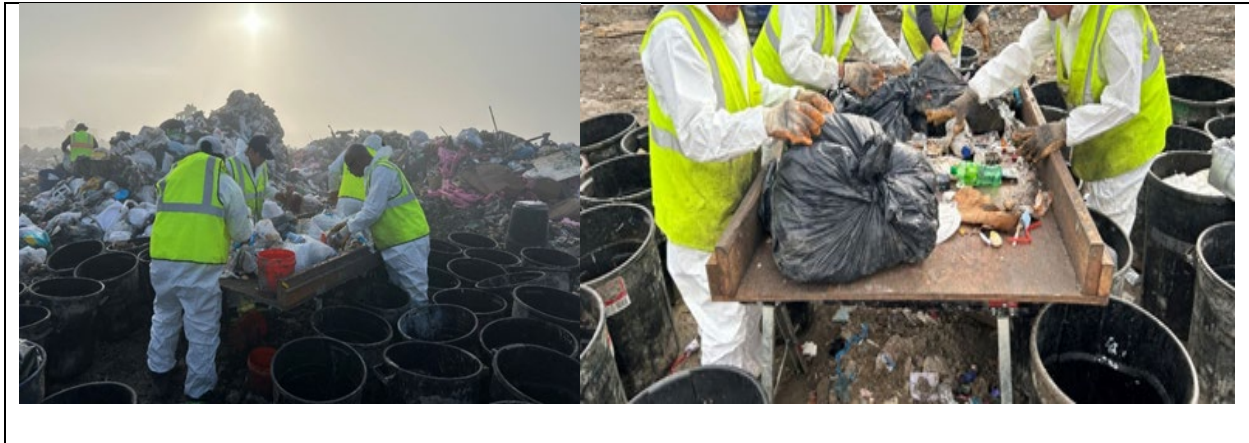
Solid Waste Infrastructure for Recycling Grant

The Solid Waste Infrastructure for Recycling program administered by the U.S. Environmental Protection Agency provides grants to implement the National Recycling Strategy aimed at improving post-consumer materials management and recycling infrastructure through improvements to local waste management systems. In 2024, Ohio EPA received funding to conduct a statewide waste characterization study and develop its first comprehensive plan focused on organic materials management to advance the goals of the state solid waste management plan.

Waste Characterization Study

In 2024, Ohio EPA received a Solid Waste Infrastructure for Recycling grant from U.S. EPA to conduct Ohio's first waste characterization study in more than 20 years. Conducted in 2025, the waste characterization study was a comprehensive analysis of municipal solid waste generated across the state. The waste characterization study involved examining the composition of residential, commercial and institutional, and industrial wastes from five regional landfills across Ohio that capture waste from 97% of the state's 88 counties. The study involved hand sorting selected loads of waste received at the facilities. **Figure 2-1** demonstrates how waste was sorted at for this study.

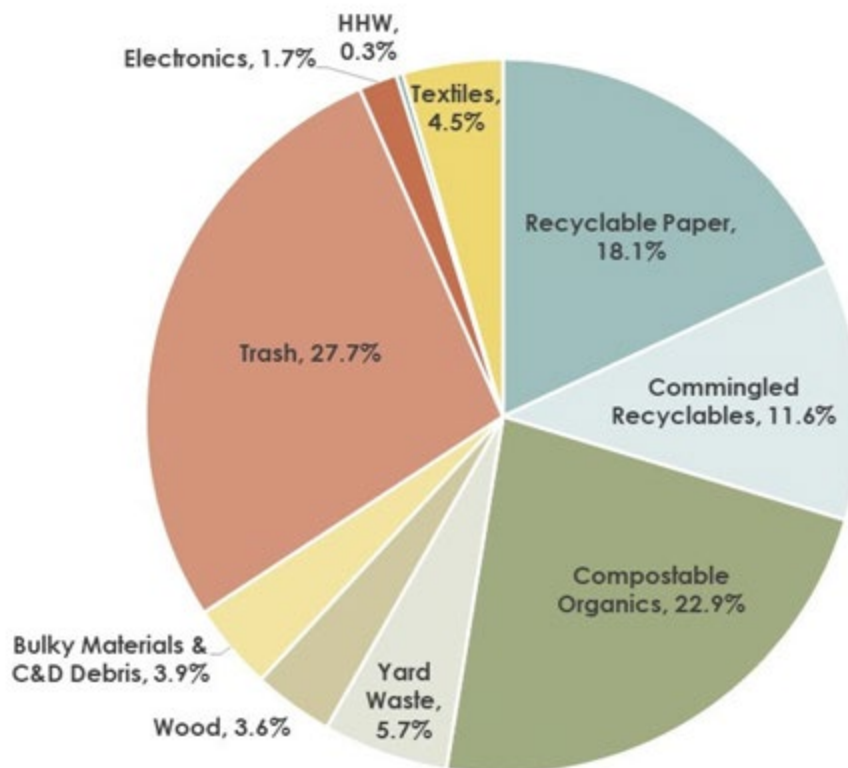
Figure 2-1 - Garbage bags are torn open and the contents separated into the sorting categories.



The waste characterization study established a baseline of Ohio's municipal solid waste that will help inform future waste management decisions and support the development of targeted diversion strategies. The study also supports a broader initiative to develop Ohio's first plan to manage organic materials and make updates to the state solid waste management plan to reflect current waste management needs and goals.

Figure 2-2 from the waste characterization study shows that an estimated 29.7% of sorted waste consisted of paper, plastics, metals, and glass. The share of paper in the waste stream has declined since 2004, driven in part by digitalization and improvements in recycling practices. Industrial, commercial, and institutional waste streams were found to contain roughly 30.9% recyclable materials with a high prevalence of cardboard. Recyclable materials comprised 28.4% of residential waste. Both rural and commercial areas demonstrate significant untapped recycling potential that could be captured through improved access to recycling services and targeted infrastructure investments.

Figure 2-2: The Overall Landfilled Statewide Waste Stream by Material Type



Compostable materials make up 22.9% of Ohio's landfilled waste and represent a major opportunity for diversion. Approximately 16.2% of compostable materials was identified as food waste. Much of this food waste is unpackaged, making it well-suited for diversion through composting or other organics processing methods. Compostable materials are common across both residential and industrial, commercial, and institutional waste streams, suggesting broad opportunities for intervention. Despite growing public awareness, food waste levels remain high, indicating the need for stronger upstream solutions such as improved inventory management, expanded food donation networks, and investments in composting infrastructure. Diverting organic materials from disposal could meaningfully reduce landfill use and divert usable resources.

Waste diversion opportunities vary across the state, with urban areas showing lower recyclable content due to existing infrastructure. In contrast, rural communities exhibit higher recyclable content in their waste stream, suggesting a need to expand access to recycling services and modernize infrastructure. Tailored strategies that reflect local conditions by material type, sector, and region are likely to produce the greatest gains in diversion and resource recovery.

Businesses and institutions represent particularly high-impact sectors for waste reduction and recycling. These sectors generate large volumes of recoverable materials, including 31.9% recyclable paper and commingled recyclables, as well as 23.5% compostable organics. Targeted interventions in these areas could yield substantial recovery benefits and support statewide diversion goals.

Statewide Organic Materials Management Plan

In September 2026, Ohio finalized its first organic materials management plan. This plan is Ohio's first statewide, comprehensive plan to reduce landfill disposal of food waste, yard waste, and other compostable materials. This project was funded by U.S. EPA's Solid Waste Infrastructure for Recycling grant.

The Ohio Statewide Organic Materials Management Plan expands on Ohio EPA's ongoing efforts to better understand the generation and management of organic materials throughout the state. The plan provides a roadmap including 87 strategies to reduce landfill disposal, strengthen organics recycling infrastructure, and support economic, environmental, and community benefits. As presented earlier, Organic materials such as food scraps, yard waste, agricultural byproducts, and other compostable materials make up a significant portion of Ohio's waste stream. Managing these materials outside of landfills presents local opportunities to advance circular economy principles and support market development. Reducing and recycling organic materials also offers an opportunity to contribute to national goals including U.S. EPA's targets for achieving a 50% recycling rate and halving food loss and waste by 2030.

The project was organized into three major phases: Assessment, Stakeholder Engagement, and Plan Development. Ohio EPA partnered with SCS Engineers to evaluate current organic material generation, collection, processing, and disposal practices; identify opportunities for increased waste reduction and recycling; engage stakeholders across public and private sectors; and develop an actionable statewide plan grounded in both data and community input. Stakeholder participation is central to shaping practical and effective strategies. Stakeholders represent the full lifecycle of organic materials, including generators, collectors, transporters, processors, end users, researchers, and regulators, along with municipalities, community organizations, and food rescue groups.

End-of-Life Lithium-ion and Rechargeable Batteries

Ohio EPA has prioritized improving public awareness of the safety risks of improper handling and promoting the recovery of critical minerals.

Ohio's Battery Industry: Closing the Loop Webinar Series

Ohio's Battery Industry: Closing the Loop webinar series, hosted by Ohio EPA and U.S. EPA Region 5 in April 2024, explored the rapid growth of battery use, the challenges of safe end-of-life management, and Ohio's emerging leadership in battery recycling and research. Participants learned about national policy priorities, regulatory considerations for spent batteries, The Ohio State University's innovations in lithium-ion recycling, and the capabilities of several Ohio-based recyclers bolstering the domestic supply chain of critical minerals.

The webinars emphasized that Ohio sits at the center of the nation's "battery belt" due to its proximity to major population centers and original equipment manufacturers, its rich automotive and manufacturing history, and its concentration of facilities producing and processing advanced batteries. Together, these factors position Ohio as a critical national hub for battery innovation, safe management, and recycling infrastructure.

Ohio Takes Charge: Safe End-of-Life Battery Management Webinar Series and Summit

In May 2026, in collaboration with the Organization of Solid Waste Districts of Ohio, the Ohio Chapter of the National Waste and Recycling Association (NW&RA), and the Solid Waste Association of North America (SWANA) Buckeye Chapter, Ohio EPA convened the "Ohio Takes Charge: Safe End-of-Life Battery Management Summit". The summit brought together solid waste and recycling organizations to assess challenges and identify solutions for reducing battery-related contamination and fire risks. A four-part webinar series provide educational background on safety hazards, public outreach, collection practices, and emerging regulatory and industry trends from January to April before the Summit.

End of Life Battery Collection:

In July 2026, Ohio EPA, the National Waste and Recycling Association (NW&RA), and Rumpke collaborated to provide the "Skip the Bin! Turn Your Batteries In!" collection event at the 2026 Ohio State Fair. Fairgoers were able to bring their end-of-life household batteries to the fair for recycling. Fairgoers also learned about how they can reduce the dangers of batteries in their homes. As can be seen in **Figure 2-3**, batteries were collected in specialized collection

drums that used fireproof material to cover and separate batteries. In all, fairgoers brought about 250 pounds of batteries, allowing the batteries to be managed safely and appropriately.

As battery use continues to expand across consumer and commercial products, Ohio's waste and recycling partners are working collaboratively to reduce fire hazards, strengthen safe collection pathways, and inform future updates to the state solid waste management plan to support long-term, sustainable battery management.

Figure 2-3: Battery recycling at the Ohio State Fair 2026



Achieving Goals 1 and 2 of the 2020 State Solid Waste Management Plan

The 2020 State Solid Waste Management Plan requires solid waste management districts to meet one of two primary goals. Goal 1 involves ensuring that at least 80% of residents have access to recycling infrastructure, including curbside programs and/or drop-off locations. Goal 2 requires reducing and recycling at least 25% of the solid waste generated by the residential and commercial sector.

Available Recycling Infrastructure

To provide the infrastructure needed to achieve Goal 2, Ohio's solid waste management districts and local communities, often in conjunction with the waste industry, have implemented numerous curbside recycling services and a broad network of drop-off recycling locations.

A drop-off is a site equipped with collection containers used to collect recyclables and that is available to the public at an easy to find and access location. Drop-offs are categorized by the number of hours the drop-off is available for use and the population of the host community. A full-time drop-off is available at least 40 hours per week. A part-time drop-off is available for use less than 40 hours per week but at a regularly scheduled time at least once per month.

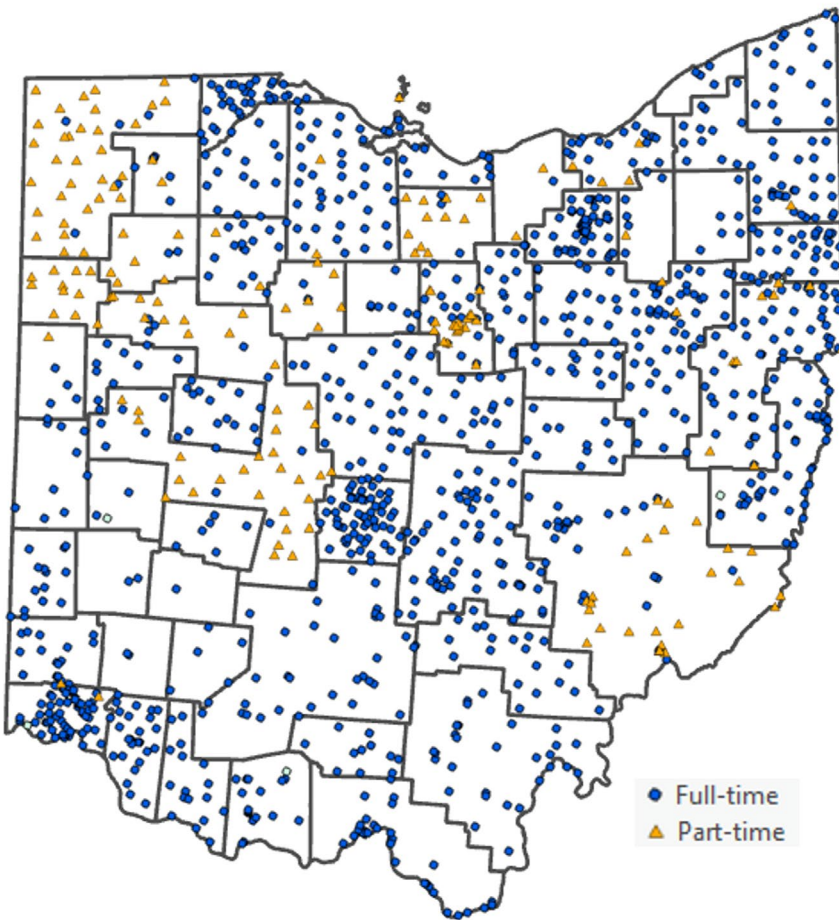
Curbside recycling services can be either non-subscription or subscription based. Non-subscription curbside recycling service is automatically provided to residents in at least single family homes within a defined area. Homeowners receive the service whether they choose to participate in it or not. To participate in subscription curbside recycling, a homeowner must voluntarily sign up for the service.

Map 2-1 shows the distribution of drop-off sites across Ohio in 2025.

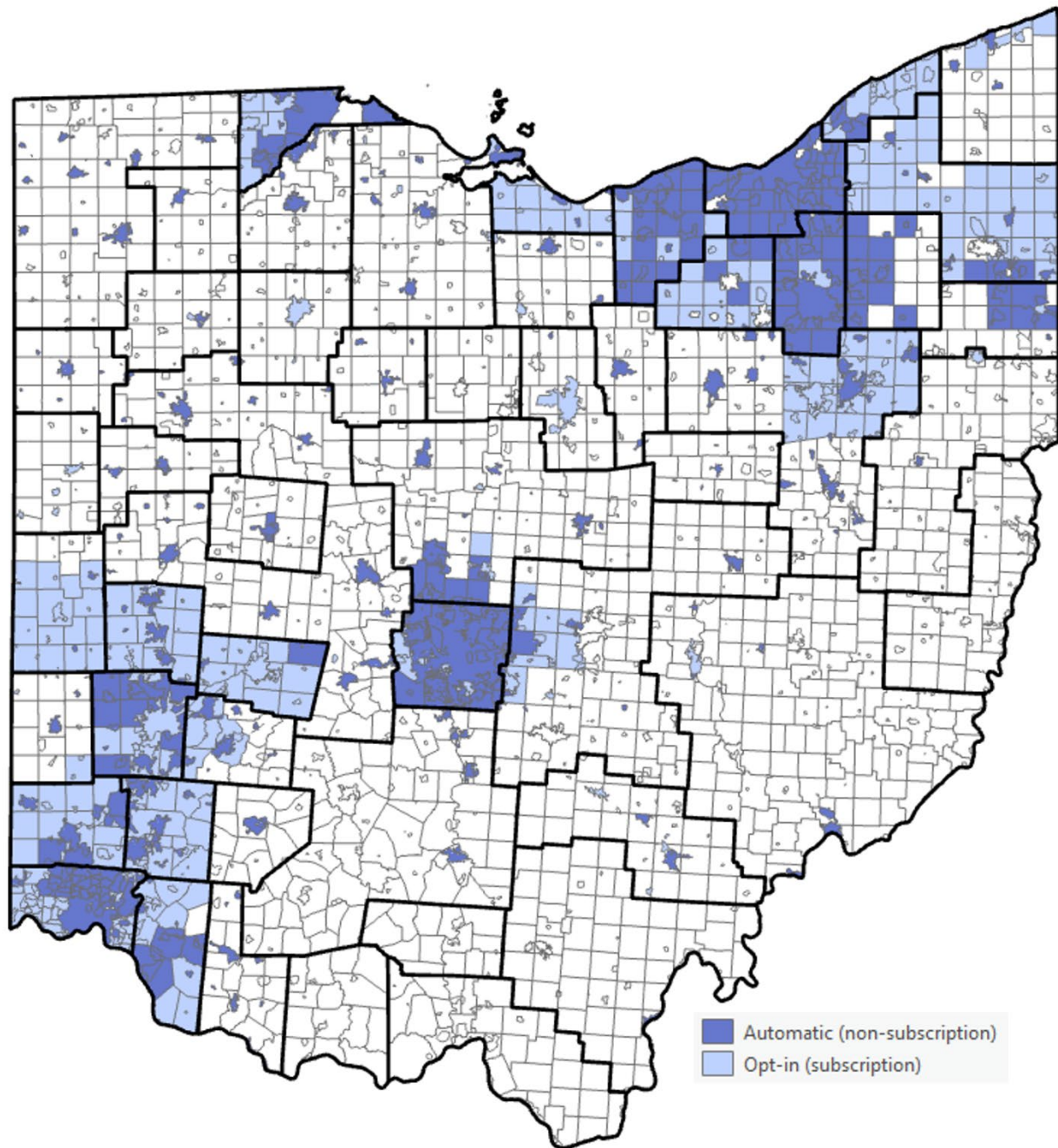
Map 2-2 depicts the distribution of curbside recycling services throughout Ohio in 2025.

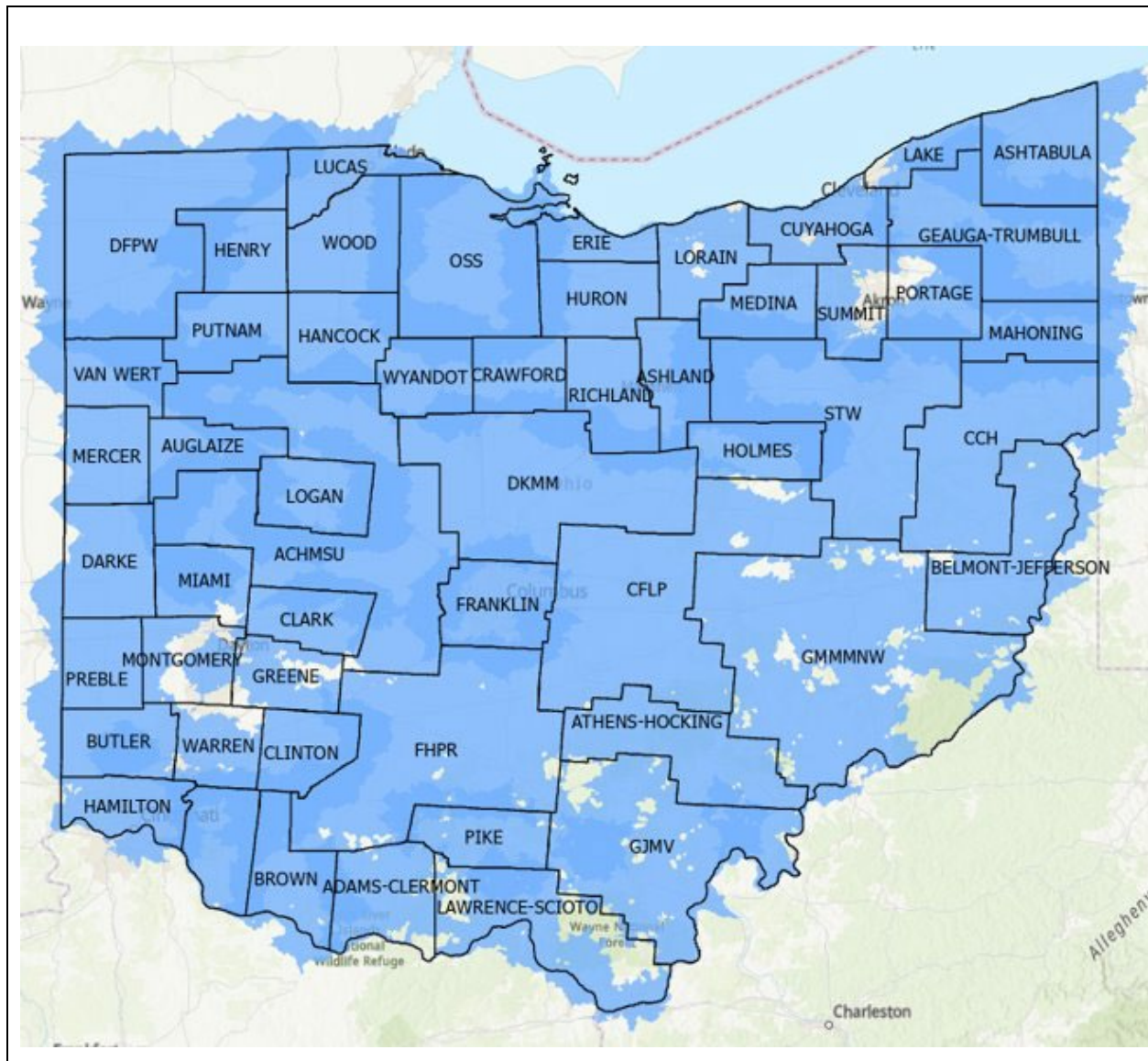
Map 2-3 shows in blue all areas of the state within a 15-minute drive of a drop-off site.

Map 2-1: Distribution of Full-Time and Part-Time Drop-Off Locations in Ohio Solid Waste Management Districts



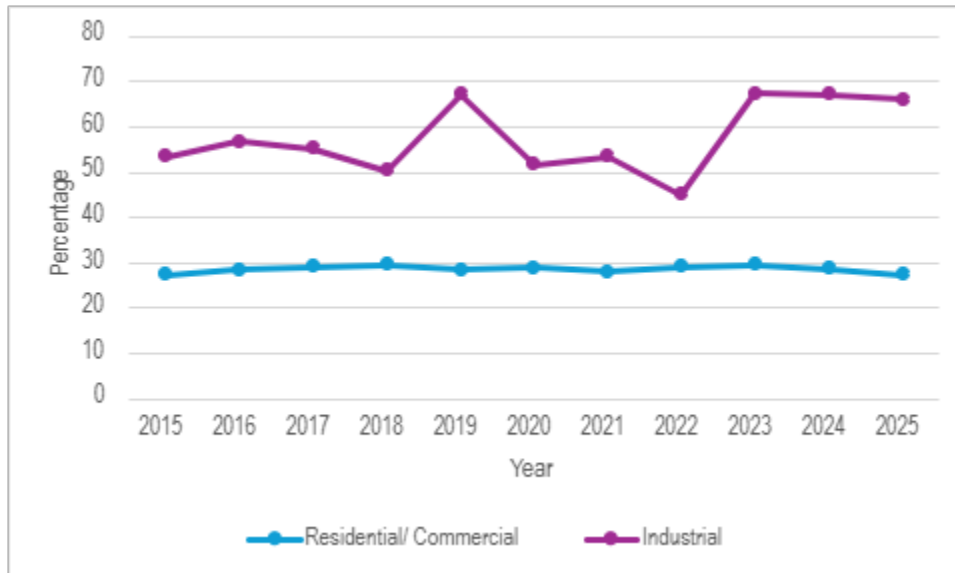
Map 2-2: 2025 Curbside Programs across Ohio's Solid Waste Management Districts



Map 2-3: Areas within a 15-minute drive from all drop-off locations

Waste Reduction and Recycling Rate

Figure 2-4: Ohio's Waste Reduction/Recycling Rate – 2015-2025

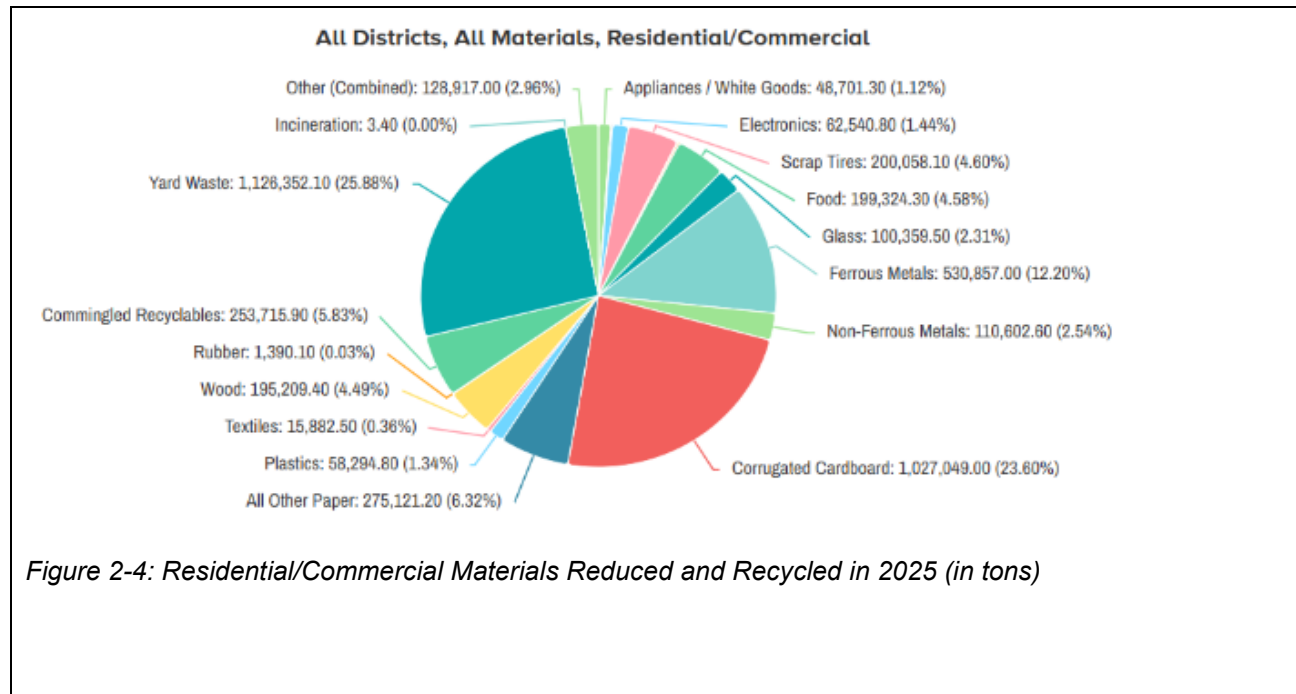


Residential and Commercial Sector

Solid waste management districts collectively reported that 27.29% (4,351,769 tons) of residential and commercial solid waste was reduced and recycled in 2025. As shown in Figure 2-5, a small number of materials comprised most of the residential and commercial material reduced or recycled. The top five recovered materials by weight and percent of total (excluding “all else”) in 2025 were:

- yard waste – 1,126,352 tons (26%);
- corrugated cardboard – 1,027,049 tons (24%);
- metals – 641,459 tons (15%);
- all other paper – 275,121 tons (6%); and
- commingled recyclables – 253,715 tons (6%).

Collectively, those five materials made up approximately 76% of all residential and commercial solid waste reduced or recycled in 2025. Metals is a unique category because it does comprise one of the largest recovered components but does not comprise one of the largest components of the overall waste stream.

Figure 2-5: Composition of Residential and Commercial Material Reduced or Recycled in 2025

Industrial Sector

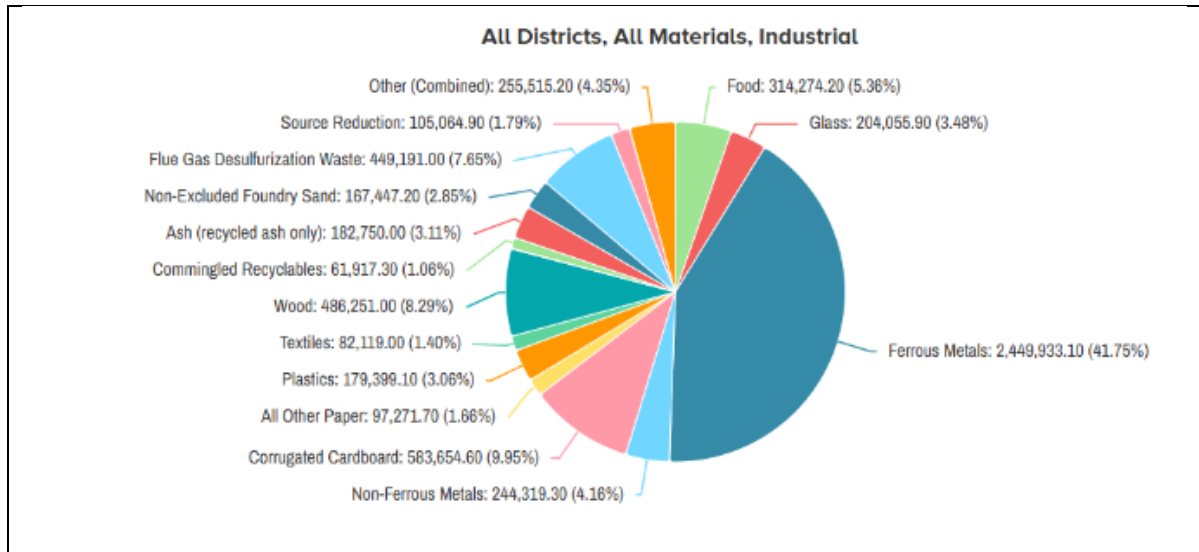
Statewide, solid waste management districts reported that 66% (5,868,118 tons) of industrial solid waste was reduced and recycled in 2025.

Figure 2-6 shows the types and amounts of materials reduced and recycled for the industrial sector. The highest percentage of industrial material recycled and reduced consisted of metals making up almost 46% of all industrial solid waste reduced or recycled.

The top five materials by weight and percent of total (excluding “all else”) in 2025 were:

- metals – 2,694,252 tons (46%);
- FGD – 449,191 tons (8%);
- corrugated cardboard – 583,654 tons (10%);
- wood – 486,251 tons (8%); and
- Other – 255,515 tons (4%).

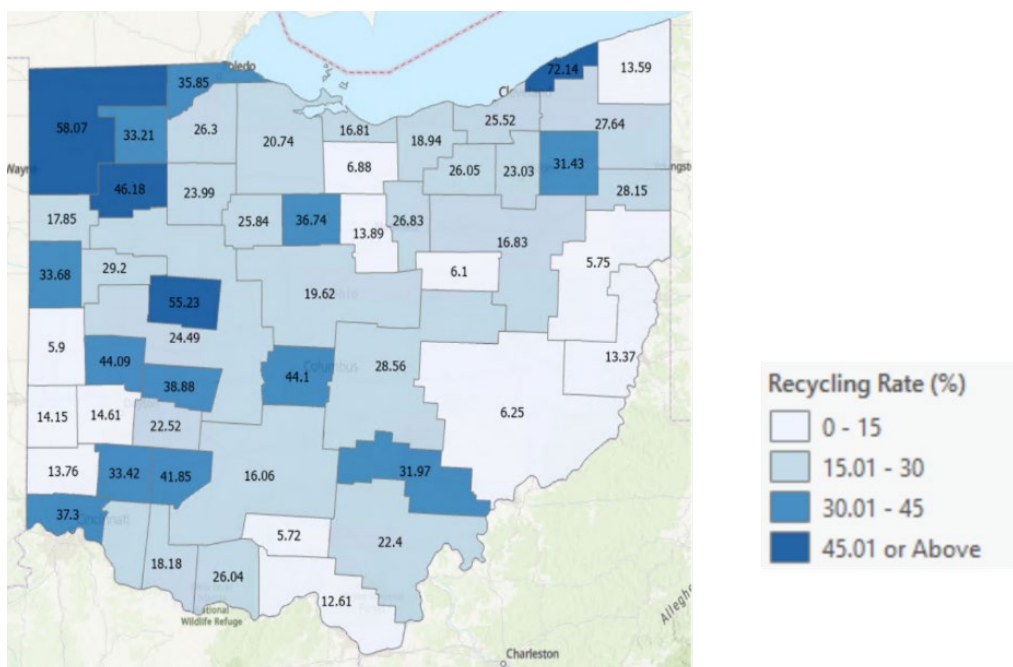
Figure 2-6: Composition of Industrial Material Reduced or Recycled in 2025



Solid Waste Reduction and Recycling Rates for the 52 Solid Waste Management Districts

As shown in Figure 2-7 residential and commercial sector recycling rates in 2025 varied widely among solid waste management districts. Rates ranged from a low of 3.2% to a high of 52.8%. 27 solid waste management districts reported having recycled enough material to achieve Ohio's residential and commercial sector waste reduction and recycling goal of 25%.

Figure 2-7: Solid Waste Management District 2025 Reduction/Recycling Rates



Chapter 3: Solid Waste Management District Objectives

Since the passage of House Bill 592 in 1988, solid waste management, including the amount and types of wastes generated and collection, disposal, and recycling infrastructure, has changed drastically. The original state solid waste management plan adopted in 1989 and four subsequent revisions have provided goals and strategies that responded to solid waste management issues facing Ohio over the past four decades. Access and awareness of recycling have improved significantly over the last 40 years, however the state has seen its landfill diversion rate plateau for the past decade. This 5th update to the state solid waste management plan provides a reimagined approach that positions Ohio and local solid waste management districts to take on current and future challenges and opportunities.

A reimagined approach

ORC Section 3734.50(C) states “...*Rather, in establishing those objectives and restrictions, the director shall take into consideration the feasibility of waste reduction, recycling, reuse, and minimization measures and landfiling restrictions in urban, suburban, and rural areas*”. This state plan update will be the first to set requirements for solid waste management plans based on solid waste district population. Prior state plans established goals and required minimum standards that considered solid waste management districts with the least resources or the lowest performance. Solid waste management districts serving smaller populations often in rural settings may have limited opportunities compared to districts serving larger populations. This state solid waste management plan introduces a new framework of minimum requirements to encourage all solid waste management districts to improve and expand programs and services and ultimately divert more material. The new structure for plans will also give solid waste management districts more flexibility to efficiently respond to the solid waste management needs of their communities.

This state plan establishes three major categories that must be addressed in each solid waste management plan:

1. Education and Programming;
2. Waste Stream Specific Strategies, and;
3. Traditional Recycling Infrastructure.

Each of these categories will have subcategories that may establish minimum requirements and offer options assigned point values. Solid waste management districts will choose options to complete during the planning period to earn points. Solid waste management districts will be assigned a total point requirement based on population. Each of the three categories will have a population-based point requirement.

A plan must demonstrate meeting all minimum requirements and meet the point requirements for the solid waste management district's population tier to be approved.

Population Tiers

Solid waste management districts will be classified into one of five population tiers based on their reference year population. Each population tier will have a total point requirement.

Population Tier	Population	Total Points Required
Tier 1: Very Small	Under 100,000	70
Tier 2: Small	100,000-200,000	105
Tier 3: Medium	200,001-400,000	140
Tier 4: Large	400,001-750,000	175
Tier 5: Very Large	Over 750,000	210

Solid waste management districts will need to demonstrate within plans achieving the following breakdown of points for each category. Additional points may be applied to any of the categories to reach the total point requirement.

Population Tier	Education and Programming	Waste Stream Specific	Traditional Recycling Infrastructure	Additional points	Total Points Required
Tier 1: Very Small	20	25	15	10	70
Tier 2: Small	30	35	25	15	105

Tier 3: Medium	40	45	35	20	140
Tier 4: Large	50	55	45	25	175
Tier 5: Very Large	60	65	55	30	210

Education and Programming

To ensure that messaging and assistance regarding recycling and waste reduction is reaching all Ohioans, solid waste management plans must include Education and Programming in a variety of platforms targeting specific audiences. Platforms for delivering Education and Programming include:

- Website*
- In-person*
- Consultations*
- Other digital content (videos, social media, webinars, etc)
- Printed materials
- Toolkits
- Grants
- Recognition programs (contests, awards, etc)
- Surveys

Platforms with an asterisk (*) will have required minimums for all solid waste management districts that they must meet to have their plan approved. These minimum requirements are:

Platform	Minimum Requirement
Website	Maintain a website that includes contact information (both email and phone number) for general inquiries, information on which materials are accepted for recycling locally, educational sections on general recycling and specific waste streams (or link to Ohio EPA created content), link to Ohio EPA created interactive maps of collection sites or other equivalent maps. All programs and services offered should be advertised on website. Website content

	must be reviewed annually and updated as needed to ensure information is accurate.
In-person	Provide a speaker, upon request, to present information on the district's programs and general recycling practices.
Consultations	Maintain a phone number and email option for residents, businesses, institutions and other entities to contact with questions.

Solid waste management districts should use these platforms for outreach and programs to reach their choice of targeted audiences. The audiences that can be targeted are:

Residential	Institutions	Businesses
Single-family	K-12 Schools	Office Environments
Multi-family	Colleges, Universities and other Post-Secondary Schools	Retail, Food Service, and Consumer Services
	Communities and Elected Officials	Industrial

Each unique combination of a platform and target audience offered will earn the solid waste management district a predetermined amount of points, based on level of effort, expense, or demand. The individual point value will be set in a format prescribed by Ohio EPA. The format will include a list of examples for each platform and audience combination that solid waste management districts may choose from.

One program or piece of content cannot earn multiple points from more than one unique combination of platform and audience. For example, a section on the website listing accepted and non-accepted materials for local curbside programs can earn points for the website/single-family platform/audience combination but it cannot also earn points for the other audiences, such as multi-family. To earn points for an audience, the platform must be unique and specifically targeted to them. If that same information is offered to the same

audience in a different platform, however, such as a postcard with the same information, then points may be earned.

Points earned for each platform and audience combination are cumulative. Each solid waste management district must reach the minimum point value indicated by its Population Tier to have this section of the plan approved.

There will be a write-in or flex option for both platforms and audiences if solid waste management districts would like to offer programming in a platform not listed or to target a specific audience outside of those listed.

Programs in this category may and should overlap with programs and services offered in the waste stream-specific strategies or traditional recycling infrastructure category. All programs and services offered by the solid waste management district should be listed on the website as a minimum to inform the public of their availability.

For each unique platform and audience combination identified, solid waste management districts must indicate a quantitative metric that will be used to measure impact of the program. For example, this measure could be number of households participating, number of views or interactions, number of presentations given by a district, or other measurement that districts can consistently obtain and report throughout the planning period. This metric will be submitted in the annual district report.

Waste Stream-Specific Strategies

Scrap tires, yard waste, and lead-acid batteries are restricted from disposal at solid waste facilities. Past state solid waste management plans have required solid waste management districts to provide strategies to manage those restricted wastes as well as other challenging waste-streams such as household hazardous waste and end-of-life/obsolete electronic devices (e-waste). This state solid waste management plan expands this requirement to include all chemistries of batteries and food waste (scraps). Solid waste management districts will be required to address the following waste streams:

1. Household hazardous waste
2. Scrap tires
3. Yard Waste
4. Food waste/scraps

5. Electronic waste (e-waste)
6. Portable, non-embedded small and medium format batteries of any chemistry

For each of these six waste streams, a solid waste management district must maintain on its website minimum basic educational information about the material (or link to a resource that does) including the importance of proper disposal or recycling. Solid waste management districts will also be required to provide an inventory of all public and private collection sites for those materials within the district with verified mappable addresses or coordinates if the site does not have a street address.

In addition to the six required waste streams, districts will also have the ability to select options for other specific materials or waste streams as a flex subcategory. Many solid waste management districts already routinely deliver programs focused on specialized or single commodities such as textiles, appliances, mattresses, expanded polystyrene foam, boat film, latex paint, vape pens, books, and document shredding. These programs are often in response to materials with disposal and recycling challenges or resident demand. This flexibility will allow districts to continue to address emergent and problematic waste streams in the future. Districts may receive points for up to three additional waste streams or specific materials.

Some subcategories will have additional minimum requirements beyond providing an inventory and basic information on the website. These are:

Waste Stream	Additional minimum requirement
Household hazardous waste	Provide a link on website to hazardous and universal waste resources (such as appropriate Ohio EPA webpage) for businesses and other non-households.
Batteries	Provide statement about lead-acid battery law on website and share or link to additional information about safety hazards of improper disposal, especially for lithium-ion batteries. Provide a link to universal waste resources for non-households.

For each of these waste streams, the format will provide a list of management options and bonus options that solid waste management districts may choose to earn points. Solid waste

management districts are not required to choose options for each waste stream, but in total must have enough points based on their population tier. For each option and bonus option selected, solid waste management districts must indicate a quantitative metric that will be used to measure impact of program. For example, this measure could be number of households participating, tons collected, number of items diverted through formal swap/reuse/repair program offered, or other measurement that districts can consistently obtain and report throughout the planning period. This metric will be submitted in the annual district report.

The options and assigned points listed for some waste streams will incentivize regionalization but not require it. Adjacent solid waste management districts must have a formal written agreement such as a memorandum of understanding or contract between both districts in order to earn points for such options. Financial considerations for regionalized services will be left to the participating solid waste management districts.

Below is a non-exhaustive list of options and bonus options for each waste stream. The local solid waste management plan format prescribed by Ohio EPA will assign points and define options. Points will be assigned on a variety of factors, such as projected impact, cost, effort, and demand for each option. Solid waste management districts may also request Ohio EPA to award points for a program or strategy not listed if they can demonstrate that it will have a similar impact. The format will define the process for districts to use in these scenarios.

Waste Stream	Options (meant as examples, not exhaustive list)	Bonus options
Household Hazardous Waste	• Arrange for an adjacent solid waste management to collect your resident's household hazardous waste; • Offer a one-day collection event annually; • Offer part-time or seasonal collection; • Offer permanent collection;	• Offer “Reuse” or swap store

	• Offer permanent collection to district residents and residents of an adjacent solid waste management district	
Scrap Tires	• Coordinate with communities to clean-up tires dumped in right-of-way not already using Ohio EPA's No Fault Cleanup Program • Offer tire collection at permanent facility; • Offer tire collection day events; • Offer vouchers for disposal of tires at licensed facility	
Yard Waste	• Offer seasonal yard waste collection for residents; • Offer yard waste drop off site to accept residential yard waste; • Offer grant programs to local municipalities to subsidize curbside programs; • Operate or develop private-public partnership compost facility for yard waste if in-district capacity is insufficient	• Offer other seasonal collections such as pumpkins and holiday trees; • Offer compost or mulch to residents to demonstrate closed loop
Food waste/scraps	• Provide home composting education workshops and/or supplies; • Provide residential food waste drop-off sites; • Provide food waste buckets/containers for residents to store food scraps at home labeled with tips to reduce contamination;	• Partner with food rescue organizations; • Set up sharing tables at schools; • Offer containers and cover cost to collect food scraps at public events

	• Operate your own or develop private-public partnership Class II compost facility for food waste if local capacity is insufficient;	
Electronic waste (e-waste)	• Arrange for an adjacent solid waste management district to collect your resident's e-waste; • Offer one-day collection event; • Offer collection at permanent facility on either a part-time or full-time basis; • Open collection opportunities to residents of an adjacent solid waste management district	• Offer secure hard drive shredding; • Coordinate or offer swap, reuse, or fix-it program
Batteries	• Arrange for an adjacent solid waste management district to collect your resident's batteries; • Offer one-day collection event; • Offer full-time permanent collection; • Offer safe battery drop off sites for at least five public sites throughout district and a minimum of one per county; • Offer full-time permanent collection to your residents and an adjacent solid waste management district	• Offer containers or mail back programs for battery collection to residents; • Offer collection of damaged, defective or recalled (DDR) batteries
Flex subcategory (choose up to 3)	• Arrange for adjacent solid waste management district to collect this waste stream; • Offer one-day collection event;	• Offer swap, reuse or fix-it program

	• Offer part-time, seasonal, or by appointment collection at permanent location; • Offer full-time collection at permanent facility; • Offer full-time collection at permanent facility to residents and adjacent solid waste management district	
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Traditional Recycling Infrastructure

Since the passage of House Bill 592 in 1988, solid waste management districts have made tremendous strides in increasing access and availability of residential recycling programs for materials such as paper, cardboard, aluminum, glass, and select plastics traditionally recycled through drop-off and curbside programs. This state solid waste management plan preserves the convenience of the drop-off infrastructure while allowing solid waste management districts flexibility to make decisions based on efficiency and their operational experience.

This category features three subcategories that will each set minimum requirements as well as provide a list of options and bonus options assigned point values. Solid waste management districts will have a minimum point value based on their population that they must achieve for this category. The three subcategories are:

1. Drop-offs
2. Curbside
3. Other infrastructure

Drop-off Recycling

Solid waste management districts will be required to provide a detailed inventory of drop-off sites, including materials accepted, availability, and physical location. Verifiable street address or GPS coordinates must be provided. Each county must have at a minimum one permanent drop-off available to all residents at a minimum 40 hours per week.

Solid waste management districts must demonstrate that drop-off sites fall within a physical convenience standard for a percentage of the district. For multi-county districts, each county will need to meet the chosen percentage as well. The convenience standards will be defined as “within x minute drive time from the drop-off” or alternatively “within x miles from the drop-off”. The physical area that falls within the convenience standard radius will be divided by the total area of the district or county. A district may subtract non-developable areas such as national forests, airports, or military bases from the total area of the district in their calculation. Options within the menu for this subcategory will award different point values based on the percentage of the area of the district falling within the convenience standard and for the number of minutes or miles established in the convenience standard. Specific point values, percentages, and convenience standards will be further defined in the format. The format will also define drop-off site qualifications and provide minimums for availability of drop-off sites. This state plan recognizes that supervised or temporary drop-off sites function better than permanent sites in some rural areas of the state and will continue to allow districts some flexibility to offer what is most efficient for their communities.

Bonus options in this subcategory that can earn additional points include contamination reduction efforts, participation studies or placing drop-off sites in close proximity to commercial/retails hubs or other areas of high traffic that will make their location more convenient.

Curbside Recycling

All solid waste management districts must provide an inventory of all communities that offer subscription or non-subscription curbside services to their residents. All options with assigned points within this subcategory must calculate the percentage of all housing units that are receiving curbside or other type of on-site recycling service, such as an apartment complex with recycling containers next to community dumpsters. The total number of housing units for the district should be determined from the most recently available American Community Survey from the U.S. Census Bureau. This number includes individual apartments within multifamily housing and will provide a more accurate assessment of residential recycling availability.

Bonus options in this subcategory include contamination reduction efforts, participation studies, or providing and presenting model zoning ordinance language that requires recycling access at newly constructed multi-family housing developments.

Other recycling infrastructure

Many solid waste management districts offer other critical pieces of recycling infrastructure such as vehicles and equipment, material recovery facilities, or containers. Especially in rural areas of the state, private companies may not find it profitable to offer these services or facilities so no other options exist. Solid waste management districts may also earn points for providing financial support to solid waste enforcement programs through the local health department or sheriff's office.

Reporting Requirements

Solid waste management districts will still be required to submit an annual district report to Ohio EPA in a prescribed format. Through the annual district report, solid waste management districts will report on the quantitative metrics indicated within the 3 categories.

Chapter 4: State Priorities

Since the original state solid waste management plan was adopted in 1989, Ohio's diversion goal for the residential and commercial sector has been set at 25%. This goal was achieved statewide in 2009, but has plateaued between 27-29% for the past decade. This plan introduces a new statewide recycling goal. **By 2040, 40% of the solid waste generated statewide by the residential and commercial sector will be reduced, recycled, or otherwise diverted from landfills.**

This chapter establishes two priority areas to guide the agency's contributions towards this goal. Aspects of these priorities are also woven throughout the solid waste management districts' requirements for their plans. These priorities facilitate the work being done at the local level so that together, Ohio can reach 40% diversion.

Data

- Collect data from material recovery facilities and processors
- Modernize the collection, visualization and use of recycling data in Ohio

Outreach

- Create online communication platform to share recycling information on state level
- Supports consistent messaging and reduces burden on smaller solid waste management districts

Priority Area 1 – Data

Recycling Data Collection

Data collection is essential for evaluating recycling progress statewide, but effort has been inconsistent across Ohio's solid waste management districts, and response rates vary widely. To improve consistency, Ohio EPA will lead statewide data collection using disposal reports

from licensed solid waste facilities and expand efforts to gather recycling data from all material recovery facilities and other processors. Solid waste management districts will be incentivized to continue local data collection through the menu.

Using data from the 2025 Statewide Waste Characterization Study, Ohio EPA will also calculate statewide material specific diversion rates. Commonly diverted materials vary in density, and heavier materials such as organics may mask changes in diversion of lightweight materials such as plastic or aluminum. Material specific rates will measure the success of the new waste stream-specific strategy requirements and help guide more targeted outreach and education.

Ohio EPA will explore changes to how solid waste management districts submit their plans to better collect the vast amounts of data reported within and make the contents of the plans more accessible.

Visualizing Recycling Data

Ohio EPA will visualize recycling rates and other data reported by solid waste management districts in an interactive dashboard or map. Graphic representations of data provide decision-makers patterns or trends to guide recycling programs. This information can be used to educate the general public and increase participation. Interactive features such as filters will also encourage deeper analysis and understanding of the data.

This state plan requires solid waste management districts to provide inventories of collection sites for various materials. These inventories must provide verified addresses or GPS coordinates for all sites listed, and the inventories must be updated or confirmed as part of the annual district reporting requirement. The agency will create an interactive online mapping resource accessible to Ohioans to easily locate collection and recycling sites. The mapping of this infrastructure will also allow easier analysis of collection gaps and potentially new markets for materials.

Priority Area 2 – Outreach

Creating an online communication platform for standardized messaging

During early stakeholder engagement sessions for this state plan update, solid waste management districts requested a statewide education campaign and more educational

materials districts could share with residents. Many smaller districts expressed they lacked the staff or skills to create and design their own content.

Ohio EPA will partner with solid waste management districts and other public and private partners to develop standardized messaging tools to educate the public about recycling practices. The tools will deliver information designed to increase participation and decrease contamination that support optimizing local recycling programs. The agency will provide these tools to solid waste management districts that may not otherwise have the resources to develop and deliver local messaging. While regional recycling programs may have aspects that differ from one another, Priority Area 2 will focus on the universal practices that support all recycling programs. The agency will also provide a platform that aids solid waste management districts, local municipalities, and organizations to deliver messages to the public.

Recycling Market Development

The state solid waste management plan is required to establish a strategy to promote markets for products containing recycled materials.

Some options incorporate contamination reduction efforts. Less contaminated recyclables are more attractive to end users to purchase and turn into new products.

Ohio EPA may also support recycling markets by making recycling data more visible and useable, facilitating strategies established in Ohio's Organics Material Management Plan, promoting the Ohio Materials Marketplace, and providing education and outreach on critical mineral recovery within the Skip the Bin! battery campaign.

Chapter 5: Statewide Disposal Restrictions and Strategies

This chapter addresses elements required by ORC Section 3734.50 not already addressed within this update.

Solid Waste Disposal Restrictions

House Bill 592 allowed for the state plan to establish restrictions on the types of solid wastes disposed of by landfilling for which alternative management methods are available. Ohio law grants Ohio EPA the authority to regulate solid waste facilities (landfill, transfer, incinerator, and composting). Ultimately, the intent of implementing disposal restrictions is to conserve landfill capacity by directing waste away from landfills to uses that capitalize on the waste's value. This state solid waste management plan focuses on optimizing and expanding existing diversion infrastructure and increasing participation to fulfil that same intent to conserve landfill capacity. Following is a summary of Ohio's existing disposal restrictions.

Source-separated yard waste

Ohio's yard waste restriction prohibits source-separated yard waste from being disposed of in solid waste landfills and burned in incinerators. Source-separated yard waste is yard waste the generator intentionally kept separate from trash so the yard waste could be collected separately. This disposal restriction does not apply to yard waste mixed with other waste by the generator.

Scrap tires

Since 1996, Ohio's scrap tire restriction prohibits whole and shredded scrap tires from being disposed of in solid waste landfills. Scrap tires can be disposed in dedicated monofills and monocells specifically designed to accept only scrap tires.

Lead-acid batteries

Since 2008, Ohio's lead-acid battery restriction prohibits anyone from commingling a used lead-acid battery with solid waste or disposing of a used lead-acid battery at a solid waste landfill.

Criteria for the Location of Solid Waste Facilities

House Bill 592 (1988) provided Ohio EPA authority to establish modern-day landfill regulations, including siting criteria. House Bill 592 also required Ohio EPA to develop rules governing solid

waste disposal facilities. Those rules were to include, among many other requirements, the siting criteria recommended in the state plan. In response, Ohio EPA adopted the initial rules governing solid waste disposal facilities in 1990. On January 14, 1994, Ohio received USEPA delegation authority to administer the RCRA subtitle D, municipal solid waste program. Pursuant to RCRA amendments, municipal solid waste landfills, which received solid waste after April 9, 1994, were subject to the more stringent criteria of 40 CFR part 258. Pursuant to Ohio's authority in ORC section 3734.02, Ohio's solid waste rules were revised to address RCRA subtitle D amendments for municipal solid waste landfills, including siting criteria.

Comprehensiveness and regular reviews of Ohio's solid waste landfill permitting siting criteria are conducted through the rulemaking process. For that reason, this version of the state plan defers to the Ohio EPA's rule development process for any updates to siting criteria.

A Statewide Strategy for Scrap Tires

Introduction

When House Bill 592 was passed in June 1988, Ohio lacked a regulatory program to ensure scrap tires were properly managed. Scrap tire open dumps were common throughout the state. In fact, in 1987, Ohio EPA estimated that 47 percent of scrap tires were unaccounted for and presumed to be illegally dumped or stored in illegal stockpiles. In response, Ohio's General Assembly required the state's solid waste management plan to establish a strategy for managing scrap tires. The 1989 state solid waste management plan included recommendations for a scrap tire disposal restriction, regulating scrap tire storage sites, investigating scrap tire disposal in abandoned strip mines, developing new tire markets, abating stockpiles, and investigating energy recovery from scrap tires.

Ohio EPA oversees a comprehensive scrap tire regulatory program covering all aspects of scrap tire management, including generation, storage, transportation, and ultimately recovery into other usable products or disposal. In 1993, the scrap tire management fund was established and funded by a fee collected on the wholesale of new tires. Ohio EPA uses this fund to remediate sites where scrap tires have been dumped. Since 1998, Ohio EPA has removed more than 44 million passenger tire equivalents (PTEs)^[1] from more than 2,000 illegal scrap tire dumps at an approximate cost totaling \$72 million. Of those tires, approximately 25 million passenger tire equivalents were removed from the former Kirby Tire Recycling, Inc.

(Kirby), one of the country's largest, illegal scrap tire sites as well. The Kirby site was set on fire by local arsonists in 1999, costing state, federal, and local agencies approximately \$2.3 million during the initial fire response, and then Ohio EPA a total of an additional \$32.5 million to remove scrap tires, burnt tire residuals, and to treat contaminated surface water.

Ohio EPA's scrap tire program has been recognized by environmental professionals and the tire industry for its outstanding achievement. The National Registry of Environmental Professionals presented its 2006 abatement award to Ohio EPA for the Kirby abatement effort as well as for Ohio's scrap tire cleanup program. In 2006, the Rubber Manufacturers' Association ranked Ohio's scrap tire program as seventh best program out of the 50 states. Since that time, Ohio has built on its success and continues to develop strategies to not just clean up illegally dumped scrap tires but also to improve proper management of scrap tires through education and outreach.

Ohio's five-year rule review requirement provides regular opportunities to make needed changes to the program. Given the maturity of and regular updates made to Ohio's scrap tire program, the state solid waste management plan now plays a minor role in the program. For that reason, this chapter summarizes recent developments in and plans for the scrap tire program rather than recommend changes to the program.

Background

Through the passage of Senate Bill 165 in 1993, Ohio's 120th General Assembly authorized Ohio EPA to develop a regulatory framework governing scrap tires management. In 1996, Ohio EPA adopted comprehensive rules to implement the law. Ohio's scrap tire rules address all aspects of handling scrap tires including transportation, storage, beneficial use, and disposal. As originally recommended in the 1989 state solid waste management plan, Ohio EPA also included disposal restrictions for scrap tires in landfills^[2]. That disposal restriction forced public and private sectors to find alternative ways to manage scrap tires.

In the 1990s, a larger percentage of scrap tires were disposed of in scrap tire monofills and monocells likely due to limited end uses for scrap tires. Over time, the largest use for scrap tires in Ohio has been as tire-derived aggregate for civil engineering projects. In 2025 annual reporting for end uses by scrap tire recovery facilities, 28% of all scrap tires reported were used in civil engineering applications such as a drainage material layer in landfill cell construction. The next largest end uses were feedstock for manufacturing (11%), tire-derived

fuel (10%), and crumb rubber (9%). In all, 75% of scrap tires were reused or recycled in some way, while 25% were disposed.

Ohio EPA's scrap tire program involves enforcing the laws and regulations, remediating illegally managed tires, pursuant to the director of Ohio EPA's scrap tire abatement authority in ORC section 3734.85, issuing grants to develop markets for tire-derived products, and providing compliance assistance, education, and outreach to various audiences. Cooperation among state and local government and industry is essential, often including Ohio EPA, health districts, solid waste management districts, local law enforcement, and industry.

Funding

Ohio's scrap tire program is funded primarily through revenue from a scrap tire fee. Annual licensing and registration fees supplement that revenue. The scrap tire fee is currently \$1 per tire and is collected on all new tires sold by wholesalers: \$0.50 is deposited into Ohio EPA's scrap tire management fund and \$0.50 funds the Ohio Department of Agriculture's Soil and Water Conservation Program. Ohio EPA uses the scrap tire management fund to administer the scrap tire regulatory program, award grants to support the development of scrap tire markets, and to abate scrap tire accumulations.

Scrap Tire Enforcement and Remediation

Ohio EPA uses two tracks to clean up illegally dumped scrap tires. The first is a traditional enforcement strategy authorized in ORC Section 3734.85(A). The second strategy is a "no fault" scrap tire removal program authorized by ORC Section 3734.85(E), which allows Ohio EPA to remediate certain scrap tire accumulations without pursuing enforcement.

Enforcement

Ohio EPA addresses illegal accumulations of scrap tires through enforcement when the property owner does not qualify for "no-fault" remediation. The enforcement process involves identifying the responsible party and issuing orders requiring that party to remove the tires. Ohio EPA may also issue orders to the property owner. If the responsible party or property owner does not comply with the enforcement orders, Ohio EPA is authorized to remediate the property and seek cost recovery by placing a lien against the property. In the 1990s and 2000s, enforcement-related cleanups constituted the bulk of the more than 44 million tires cleaned up by Ohio EPA. Ohio EPA currently completes the majority of scrap tire remediation sites under the no-fault program.

No Fault Cleanup Program

ORC Section 3734.85(E) allows Ohio EPA to provide scrap tire removal services to a victim of open dumping through state contractors at no cost to the victim. Eligible sites must consist of no less than 100 and no more than 10,000 scrap tires, or more at the Director's discretion. Further, the victim must demonstrate that eligibility criteria established by law are met. Among those requirements, the victim must be able to: demonstrate that the tires were dumped after acquiring the property or acquired as a bequest or devise of an estate; be unable to identify the responsible party; and certify that they received no financial benefit from the tires being placed on the property.

From 2019 through 2026, Ohio EPA conducted 1,339 no-fault projects at a cost of approximately \$7.4 million and resulted in the clean-up of more than 1.2 million scrap tires. During this same period, approximately \$450,000 was spent on nine enforcement sites, which resulted in 107,409 scrap tires cleaned up.

Scrap Tire Collection Days

Beginning in June 2026, Ohio EPA expanded opportunities for citizens to dispose of scrap tires at no cost through a series of statewide scrap tire collection days, where local citizens can drop off up to 10 scrap tires at sponsored events. As of September 2026, Ohio EPA hosted, in partnership with local communities, 12 events statewide, collecting over 118,500 tires at a cost of approximately \$99,000. An additional 21 events are currently scheduled throughout the remainder of 2026, and it is Ohio EPA's goal to hold an event in each of Ohio's 88 counties.

Grant Programs

Market Development

Ohio EPA administers this grant to support projects that expand or create markets for scrap tire-derived materials and related products. Public agencies, non-profit organizations, and private companies can all apply for grants, subject to availability of funds. Private companies need to partner with a government sponsor. Eligible projects may include:

- purchasing equipment to expand or upgrade scrap tire processing and/or manufacturing operations;
- using scrap tire material in civil engineering or construction projects, such as aggregate in drainage systems and backfill at construction sites; and

- incorporating ground tire rubber or recycled asphalt shingles into new paving initiatives.

In 2026, Ohio EPA awarded five applicants scrap tire market development grants totaling \$984,500. Of those, one applicant will purchase equipment, two will use ground tire rubber in paving projects, and one will install reinforced scrap tire shred walls at a civil engineering project. Since initiating the grant program in 2006, Ohio EPA has awarded 162 grants totaling more than \$21 million.

Scrap Tire Amnesty and Collection Programs

Ohio EPA provides funding to local government agencies to collect scrap tires from residents and from along roadsides through Community Development and Litter Prevention Grants. A wide range of projects are funded through the Community and Litter Prevention Grant Program, and the grant program is competitive. Applicants seeking money for amnesty collections compete with applicants seeking funding to purchase processing equipment, trucks and carts for curbside recycling services, litter collection programs, and other uses. Applicants who receive funding to conduct tire amnesty collections are required to charge people who bring tires to events at least \$0.50 per tire. In 2026, Ohio EPA awarded 8 tire amnesty grants totaling \$157,936.

Mosquito Control Grants

Ohio EPA provides funding to health departments and other public entities for local mosquito control measures. These grants support Ohio's efforts to mitigate the potential for outbreaks of mosquito-borne diseases such as West Nile Virus and La Crosse Encephalitis. Grant funds can be used for: mosquito surveillance; larval control; adult mosquito control; community outreach; and breeding source reduction

Since beginning the mosquito grant program in 2016, Ohio EPA has awarded grants to 508 recipients totaling more than \$9.8 million. As with all of Ohio EPA's grant programs, the mosquito control grant program is competitive, and not all applicants receive funding. In 2026, Ohio EPA received requests from 67 applicants for almost \$1.2 million and awarded \$649,682 to 32 recipients.

Ohio EPA intends to continue all three grant programs provided Ohio EPA continues to receive enough money from the scrap tire fee to support the programs and is authorized to spend the money.

Compliance Assistance, Education and Outreach

A Scrap Tire Summit was held in 2016 by Ohio EPA in partnership with the Organization of Solid Waste Districts of Ohio and the County Commissioners Association of Ohio. From this summit, Ohio EPA received recommendations regarding four main categories: legislation and regulation; enforcement, education, and funding; market development; and new tire management options. The group concluded that increased education, enforcement, and funding combined with legislative changes could provide short-term solutions to reducing open dumping of scrap tires. The group found that investments in additional infrastructure to collect and manage scrap tires are needed to create a sustainable scrap tire management system.

The summit concluded that cleaning up open dumped scrap tires will continue to be an ongoing financial burden for Ohio EPA and local governments if Ohio cannot identify and curb the behavior that leads to dumping. Illegal dumping by individuals and businesses that fail to follow scrap tire management requirements remains a concern. Ohio EPA will partner with responsible generators, transporters, industry associations, and local agencies to improve compliance and target unlawful practices. Ohio EPA has initiated a scrap tire generator education and outreach effort.

The goal of the scrap tire generator education and outreach effort is threefold:

- to produce a standard approach to educating and performing outreach to scrap tire generators that can be utilized by Ohio EPA and partner agencies;
- provide educational resources and compliance assistance to scrap tire generating businesses in all 88 counties of Ohio
- compile an inventory of scrap tire generating businesses for future outreach efforts and compliance monitoring.

Partners in this effort include solid waste management districts, health districts, and local law enforcement.

Scrap Tire Toolkit

In 2019, Ohio EPA developed a toolkit to be a repository of all agency resources for educating scrap tire generators. The toolkit is available to all partner agencies and includes the scrap tire-related enforcement resources available. New resources are added into the toolkit as better forms of communication are developed.

Provide Education and Outreach to Scrap Tire Generating Businesses

Ohio EPA developed a statewide approach to providing education and outreach to scrap tire generating businesses based in the community-based social marketing methodology.

- Development of Statewide Model
 - Surveys: Ohio EPA surveyed two groups of scrap tire stakeholders. Scrap tire generating businesses were surveyed to learn what prevents and motivates businesses that generate scrap tires to comply with Ohio's regulations. Ohio EPA surveyed health districts and solid waste management districts to solicit their understanding of reasons why scrap tire generators may not manage their scrap tires legally. Further, the survey was designed to capture those partners' professional opinions on potential solutions to the open dumping problem in Ohio.
 - Workgroup: Ohio EPA convened a group of public and private partners to evaluate the surveys and identify the barriers and benefits to complying with Ohio EPA's scrap tire regulations. This group was used to develop a strategy for providing education and outreach to scrap tire generating businesses that was piloted for two years. The outreach strategy involved providing a resource packet to each scrap tire generating business and encourages the business to use a registered scrap tire transporter, complete and maintain shipping papers received from the registered scrap tire transporter, and secure scrap tires at their place of business.
- Pilot program
 - First year: In 2024, Ohio EPA provided grant funding to two solid waste management districts and five health districts to pilot the outreach strategy. Ohio EPA hired five summer college interns to conduct outreach to scrap tire generating businesses in each of Ohio EPA's district offices. Priority was given to areas with a documented scrap tire dumping problem. .

- Second year: In 2025, Ohio EPA continued the outreach strategy using summer college interns. Similar to 2024, priority was given to political jurisdictions that were considered high risk.

From 2024 through 2026, Ohio EPA's outreach strategy reached almost 50% of Ohio's counties and visited more than 3,200 businesses. From the data collected for years 2024 and 2025, the results indicate that at the first outreach visit, on average 63% of scrap tire generating businesses had adopted the desired behaviors of the strategy. After just one additional outreach visit, the percent of scrap tire generating businesses that had adopted the desired behaviors of the strategy increased to 72%.

Once Ohio EPA has implemented the outreach strategy in all of Ohio's 88 counties, the effectiveness of the outreach strategy will be evaluated, the need for other types of education and outreach for scrap tire generating businesses will be assessed, and whether additional infrastructure to collect and manage scrap tires is needed to create a sustainable scrap tire management system will be determined.

Summary

Since the passage of House Bill 592 in 1988, Ohio has realized many successes with managing scrap tires including a comprehensive regulatory framework and expanding markets for recycled tires. Illegal tire dumping remains prevalent in communities across Ohio. Ohio EPA partners with local solid waste management districts and health departments to investigate and clean up illegal dumping and implement programs to provide Ohioans with opportunities to safely manage scrap tires. Ohio EPA will continue working with stakeholders to deter ongoing illegal dumping through a combination of regulatory and educational strategies.

^[1] A passenger tire equivalent, or PTE, is the standard unit of measurement used by Ohio EPA to quantify scrap tires. Most historical data used a PTE that is equivalent to 20 pounds, the weight of an average passenger tire. PTE is used to convert different types of tires to a common unit of measurement that helps estimate costs to remediate scrap tire dumps as the weight of tires is more useful than number of tires. As of June of 2023, Ohio EPA updated a PTE is equivalent to 25 pounds, the weight of an average passenger and light duty truck scrap tire.

^[2] Ohio law allows scrap tires to be disposed in dedicated facilities or portions of solid waste landfills dedicated to scrap tires. Facilities for disposing of scrap tires are called monofills. Monocells are units at solid waste landfills that are used to dispose of only scrap tires.

Strategy for Managing Household Hazardous Waste

Hazardous waste generated by households is referred to as household hazardous waste. Household hazardous waste includes any material discarded from single and multiple dwellings, hotels, motels, and other residential sources that, because of the material's chemical nature, may pose a threat to human health and the environment when handled incorrectly. Common household products that can be hazardous waste include:

- household cleaners;
- automotive fluids such as antifreeze, gasoline, and oil;
- lawn and garden products, such as pesticides, fertilizers, and weed killers;
- paint and paint-related products, such as oil-based paint, paint stripper, stains, and turpentine;
- pool chemicals;
- electronics;
- lithium-ion and other rechargeable batteries;
- fluorescent light bulbs;
- Items that contain mercury, like thermometers and thermostats; and
- compressed gas tanks (such as propane tanks).

Although it can have many of the same properties as hazardous waste from commercial and industrial generators, household hazardous waste is not regulated under either the federal or Ohio hazardous waste regulations. Household hazardous waste generated by households can legally be disposed of along with all other trash as municipal solid waste. However, households are encouraged to reduce their hazardous waste and manage it safely.

A Reimagined Approach

In the past, Goal 6 required solid waste management districts to provide residents with strategies that address household hazardous waste. Strategies ranged from education on choosing less hazardous products to one day collection events to full-time permanent collection facilities. Some solid waste management districts offer comprehensive household

hazardous waste management programs while others do not have the financial resources to support these programs.

This state plan update encourages solid waste management districts to expand programming and consider regional solutions. Household hazardous waste is included as a subcategory in the waste stream specific category in the menu for plans. All solid waste management districts must provide educational resources and an inventory of all facilities accepting household hazardous waste within the district. The available options and point values within that subcategory will also incentivize regionalization of household hazardous waste collection infrastructure and other management options such as single day collection events or coordinating reuse programs. The flex subcategory within the waste stream specific menu will also encourage alternative management programs for materials that are often mistaken as hazardous waste, such as latex paint, or for specific types of household hazardous waste, such as e-cigarettes or vape pens.

Management of Ash Resulting from the Burning of Mixed Municipal Solid Waste

Incineration never emerged as a long-term management option for municipal solid waste in Ohio so developing alternative management options for ash has not been necessary.

If circumstances change in the future, then Ohio EPA in consultation with the Materials Management Advisory Council will develop a strategy for diverting ash from landfills through the next state solid waste management plan.

