Annual Report of the Recycling Public Advisory Council

Twenty-Fourth Edition

Presented to the Honorable Matt Meyer, Governor of Delaware and the 153rd Delaware General Assembly

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Executive Summary

The General Assembly enacted Delaware's Universal Recycling Law (UR Law) on June 8, 2010, and established ambitious waste diversion goals for the State. Waste diversion is defined as the amount of waste recycled and the amount of waste diverted from entering landfills through source reduction activities. The goals were to recycle 50% of the municipal solid waste (MSW) disposed of by calendar year 2015 and 60% by calendar year 2020. These goals included recyclables diverted from both residential and commercial waste and utilized EPA's guidelines for calculating the recycling percentage. The following report reflects what was accomplished during calendar year 2024 (CY2024).

The CY2024 recycling rate for Delaware was 36.4%

The State has been successful at diverting recyclable materials from the landfill, but the goals set forth in the UR Law have not been achieved yet. The State recycled 36.4% of its municipal solid waste in CY2024. Even though Delaware has not achieved the goals established in the legislation, a comprehensive statewide system has been developed to reduce the burden on our landfills and provide raw materials to the market through our diversion activities.

CY2024 Recycling Rate Summary in Tons

Diverted	MSW	Total Municipal Solid Waste	Percent Diverted
Recyclables	Disposed		Recyclables
452,498	790,800	1,243,298	36.4%

For the full report visit: Assessment of Municipal Solid Waste Recycling CY2024

As illustrated in the charts below, Delaware has made significant strides in the diversion of waste to new uses and in the reduction in the amount of waste sent to Delaware's landfills since 2006. The CY2024 data shows the residential recycling amount decreased 10,647 tons, and the commercial recycling amount decreased 5,301 tons when comparing CY2023 to CY2024. This resulted in the diversion rate decreasing 1.1% from 2023 to 2024 (from 37.5% to 36.4%). The amount of waste landfilled increased 11,309 tons (1.0%) from 2023. That comes from 4,572 more tons of residential waste and 6,737 more tons of commercial waste going to the landfill. The diversion rate is calculated only on those materials recycled from MSW sources using EPA's methodology. All other materials (such as construction and demolition waste, industrial wastes, and land clearing debris) are excluded. Materials that are sent directly for energy recovery are also excluded (such as tires sent for tirederived fuel). Most scrap metals except for appliances, lead-acid batteries, and aluminum cans are not counted as MSW. This results in a slightly lower recycling rate than what is achieved.

Figure 1 - Recycling Rates in Delaware

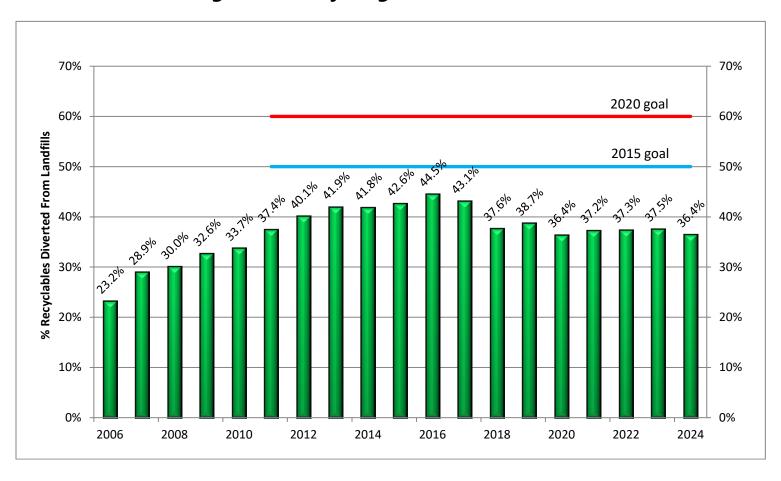
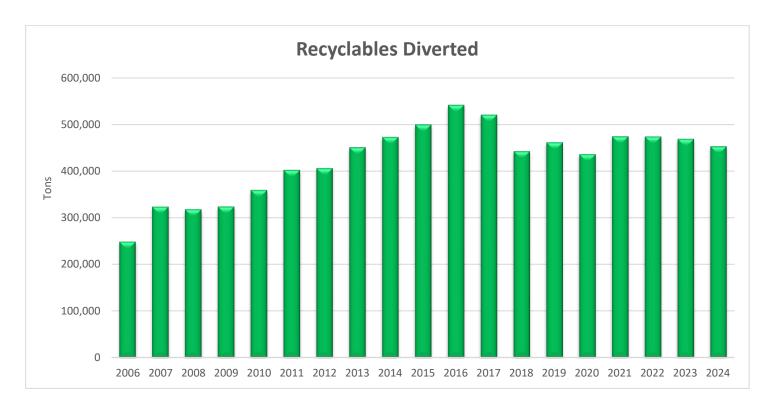


Figure 2 - Municipal Solid Waste (MSW) Landfilled in Delaware



13,731,142 tons of material have been landfilled since 2006.

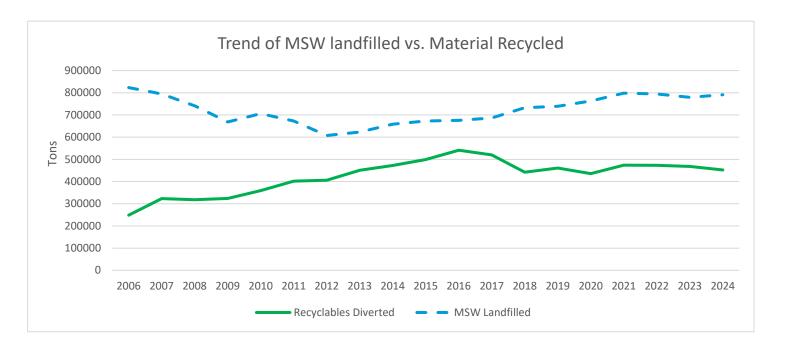
Figure 3 – Recyclables Diverted from Landfills in Delaware



8,071,510 tons of recyclables have been diverted from landfills since 2006.

Delaware has three municipal solid waste landfills. One in each County. Delaware also has one Materials Recovery Facility (MRF) where most residential recyclables go to be sorted and sold to manufactures to be made into new items. This facility processes an average of 115,000 tons of recyclables per year. It is very important that only acceptable recyclable materials end up at the facility. However, there are often large amounts of trash sent to the MRF that contaminates the recyclable materials and makes them less marketable, and less valuable. Examples of contamination include food waste, trash, diapers, scrap metal, and plastic bags. Valuable time and energy is spent trying to remove as much of these contaminats as possible from the desired material. Outreach and education still need to continue so that all Delaware residents and businesses know what is acceptable to put in their recycling cart or recycling dumpster. Delaware is unique because there is one MRF that services the entire state. This allows one message to be sent to residents on what is acceptable to recycle whether they are at home, work, or school. However, the number of people moving into Delaware and visiting from out of state where recycling processes are different, and the influence of national messaging creates some confusion.

Figure 4 – Trend of MSW landfilled vs. Recyclables diverted from the landfills



790,800 tons of MSW were landfilled and 452,498 tons of recyclables were diverted in 2024.

One of the challenges in achieving a reduction in MSW landfilled is that Delaware's population has steadily increased from ~859,000 in 2006 to ~1,051,917 in 2024. There was a 1.49% increase from 2023 to 2024. On average, each resident generated 6.5 pounds of trash per day in 2024 based on the total Municipal Solid Waste (MSW) produced divided by the population.

There was the equivalent of 6.5 pounds of trash generated per day by each Delaware resident in 2024. Approximately 2.4 pounds of that was recycled.

One reason the diversion rate decreased in 2024 involved commercial waste. The amount of commercial waste landfilled in 2024 was ~88,000 tons more than in 2016, but the amount of commercial waste diverted from the landfill in 2024 was 58,000 tons less than in 2016. Action needs to be taken to improve recycling in the commercial sector to stop the 11.3% decline in diversion since 2016.

Other factors that led to the decreased diversion rate were an 8% decrease in paper packaging, an 11% decrease in vehicle waste, and a 10% decrease in organics wastes diverted from the landfill when comparing 2023 to 2024.

Recommendations of the Recycling Public Advisory Council (RPAC) to the Governor and General Assembly:

- 1. Promote Legislation that reinforces waste reduction and increased recycling in Delaware so that the goals of the Universal Recycling Law can be achieved.
 - Support businesses in Delaware that utilize reuse and repair services that helps lessen the amount of waste being sent to our landfills.
 - Support businesses interested in diverting food waste and organic material from landfills.
 - Encourage the permission of backyard compost bins for organic waste that is often prohibited by HOA's.
- 2. Expand your own recycling knowledge and inform your constituency.
 - Share Delaware's Recyclopedia search tool (<u>de.gov/recyclopedia</u>) as the only resource for knowing how to properly dispose of items (national messaging doesn't apply).
 - Encourage all State employees to take the training module about Recycling in Delaware on the Delaware Learning Center website.
 - Follow DNREC on social media and share valuable content with constituents.
- 3. Request a status update from the Government Support Services Division of the Office of Management and Budget regarding 7 Del. Admin Code §4106 Environmentally Preferable Purchasing Policy.
 - Section 12.0 of the above referenced regulations discusses OMB creating a workgroup to coordinate, facilitate and make recommendations under these regulations regarding environmentally preferable procurement opportunities.
 - Requiring specified recycled content percentages in procurement purchases helps establish a market for recyclables being collected in the state.
- 4. Request OMB work with DNREC to review recycling practices in State buildings.
 - State office buildings are not exempt from the <u>Universal Recycling Law</u> and <u>Regulations</u>. There needs to be an annual review and assessment of State office building participation in the program. This is to ensure containers and service contracts are optimized to maximize diversion from State office buildings. It will also help to identify and correct contamination issues which might be occurring due to incorrect recycling practices. This could potentially save the state money and increase the recycling rate.

5. Continue to explore new technologies and outreach strategies that promotes recycling in Delaware.

• This includes working collaboratively with DNREC, DSWA, RPAC, and other public or private entities.

6. Support DNREC accessing federal funds to reinstate the Universal Recycling Grant & Low Interest Loan Program.

- RPAC believes grants and loans to support recycling activities and businesses in our State
 is one of the most important steps in reaching the recycling goals set in the Universal
 Recycling law. The Recycling Fund, which provided monies to support the Universal
 Recycling Grant and Low Interest Loan program, has been exhausted. The EPA may offer
 grant opportunities that DNREC can apply for to work on infrastructure needs for
 recycling in DE. These grants and loans will help to expand diversion and recycling
 efforts which can generate good paying local jobs, economic stimulation, and support
 climate change reduction efforts, leaving Delaware better for future generations.
- 7. Support consideration of updating State Code (7 Del. C. §6058) regarding RPAC's mission, direction, scope, and appointed members.

Background

In September of 2000, former Governor Thomas Carper established the Delaware Recycling Public Advisory Council (RPAC) with Executive Order No. 82. On June 8, 2010, the General Assembly formally recognized RPAC when Delaware's Universal Recycling Law (UR Law) was enacted. Members of RPAC are volunteers appointed by the Governor. RPAC was tasked with offering advice to DNREC and the DSWA on all aspects of recycling, advise DNREC in developing criteria for the Recycling Grants Program and selection of application projects that are eligible to receive funding, providing recommendations on recycling outreach and education programs conducted by DNREC and DSWA, and submitting an annual status report to the Governor and General Assembly. RPAC holds periodic meetings throughout the year to discuss opportunities to engage the public. The annual report continues to follow the EPA's measurement protocol methodology, established by the Council when it was created, so that it is comparable to other state and federal measures.

The 2010 UR Law created the single-stream curbside recycling program we have today and implemented a short-term beverage container fee that initially funded the Universal Recycling Grant and Low Interest Loan Program. The program awarded over 100 grants, totaling more than \$8.4 million to increase recycling activity and decrease waste production in the State. The funding ended in December 2014 and unfortunately the remaining funds were reallocated in 2016 by the legislature. The remaining interest and unawarded funds were distributed by the final cycle of the Grant Program in 2019. The expenditures amounts can be viewed in previous reports.

Measurement and Reporting

RPAC utilizes statistically acceptable and comparable methodology for measuring recycling diversion rates based upon EPA guidelines. This methodology provides an objective and auditable approach to recycling measurement which is relevant and repeatable. RPAC and DNREC have developed guidelines for the recycling industry to report information as directed by the Universal Recycling Law (7 Del. C. §6056). To help protect proprietary business information, this process continues to use a consultant, DSM Environmental Services, Inc., to collect recycling data, which has allowed us to achieve better and more accurate results since 2011, with 2024 being the fourteenth year of industry reporting. This data includes residential and commercial recycling information including yard waste. In CY2024 the residential recycling rate decreased by 3.9% and the commercial recycling rate decreased 2.7% from the 2023 rates. For the full report visit: Assessment of Municipal Solid Waste Recycling for CY2024. EPA's calculation for a national average recycling rate was 32.1% in 2018. In November of 2020, they also announced a national recycling goal to increase the U.S. recycling rate to 50% by 2030.

Figure 5 – CY2024 Total Municipal Solid Waste Breakdown



Breakdown of diverted recyclables into residential and commercial.

Recent Recycling Efforts in Delaware

DNREC Activities

Recycling Grants Program

The remaining balance of the Universal Recycling Grant and Low Interest Loan Program funding has been spent. The program is no longer available unless a new funding source is found. No funding was appropriated in the FY2026 budget, so the program will remain suspended until funding is allocated during an upcoming budget cycle.

Plastic Carryout Bag Ban and At-Store Recycling Program

The single-use plastic bag ban went into effect on January 1, 2021. At the time of implementation, the ban only applied to certain stores within the State and required a thicker "reusable" plastic film bag. An enhanced plastic bag ban went into effect on July 1, 2022, banning all retail stores (except restaurants) from utilizing any plastic film bags at checkout. Stores that provide exempt plastic bags are required to have an at-store drop off bin for plastic bags and plastic film wrap. This is the only way residents can recycle this type of material since it is not accepted by the single stream recycling program. When plastic bags and plastic film get to the Material Recovery Facility (MRF) it wraps around and jams the equipment at the sorting facility, causing significant issues. DNREC performs compliance and enforcement activities that support this legislation. DNREC conducted almost 200 Plastic Carryout Bag Ban inspections in 2024.

Organics Diversion

DNREC's Division of Waste & Hazardous Substances has agreed to a three-year contract with a vendor to conduct a pre-order Compost Bin and Rain Barrel sale that started in the spring of 2024. Backyard composting reduces the amount of food waste that needlessly ends up in Delaware's landfills. Food waste is one of the largest waste streams that end up in our landfills. Combining food waste with yard waste in a compost bin produces nutrient rich soil that can be used as a natural soil amendment on gardens, flower beds, or lawns. There were 75 compost bins, and 75 rain barrels sold at the one event in 2024. There are two events scheduled in 2025.

Public Education and Outreach

DNREC utilized public outreach events and gave presentations to spread the recycling and waste reduction message to over 1,460 residents at eleven events in 2024. DNREC's social media channels were also utilized to reach residents.

The Education Campaign Graphics section on page 12 shows some of the examples of the current outreach material and marketing campaigns that should be the only resources Delaware residents use when determining what to put in their curbside recycling. The Recycling in Delaware poster and How to Guide have been updated for 2025, but provide the same information seen below.

DNREC had 21,874 views of its websites in 2024. This is the combined views for <u>de.gov/recyclopedia</u>, <u>de.gov/recycling</u> and <u>de.gov/composting</u>. There were 35,228 views of the yard waste website (<u>de.gov/yardwaste</u>) that lists yard waste drop off sites available to Delaware residents.

DNREC partners with DSWA, UD Extension offices, Delaware Apartment Association, municipalities, and educational institutions to spread messaging to residents.

Enforcement

DNREC is responsible for enforcing the Universal Recycling Law and Regulations. Numerous waste service providers and residential property managers have been cited for violating the law. DNREC conducted eleven Universal Recycling inspections in 2024. This was low due to turnover of staff.

Education Campaign Graphics

Recycling in Delaware poster



Recyclopedia flyer



Social Media sample





DNREC Activities (continued)

Resource Recycling Systems (RRS) conducted research in 2020-2021 on over 3,200 recycling programs in the U.S. It found that only 9% of programs are using either an app or search tool. Delaware is part of that 9%. In 2020, DNREC contracted to develop a new search tool – Recyclopedia. In 2024, DNREC continued to develop and refine Recyclopedia to fit the needs of all Delawareans. This search tool is located on de.gov/recyclopedia. The tool allows residents and businesses of Delaware to know exactly where and how to dispose of over 450 common items that they may no longer have a use for. The app version of Recyclopedia was released at the end of 2024. It is now available in Google Play and Apple App Store.



DSWARECYCLING FISCAL YEAR 2024 DSWA Drop-Off Centers* Statewide Single-Stream Recycling Received Motor Total **Batteries** 108,378 Commercial Electronics Tons 20,863 Tons Recycling Residential 87,515 Tons **TOTAL COLLECTED: 3,028 TONS** *Data from DSWA's Drop Off Centers & Recycling Centers Only HOUSEHOLD HAZARDOUS WASTE COLLECTED **HOUSEHOLD HAZARDOUS** WASTE COLLECTION EVENTS TONS OF DOCUMENT REDDING EVENTS DOCUMENTS SHREDDED Printers Most Collected Items ⊌ 5,014 Items Televisions 16,055 Items Computers **ELECTRONICS RECYCLED** 33,691 Items

Delaware Solid Waste Authority (DSWA) Activities – FY2024 Highlights

Recycling Drop-Off Centers

DSWA operates staffed Recycling Drop-Off Centers across Delaware to ensure proper recycling practices and reduce contamination. These centers accept single-stream recycling, household batteries, polystyrene foam, electronics, motor oil, oil filters, and more. In FY2024, statewide single-stream recycling reached 108,378 tons, with 87,515 tons from residential sources and 20,863 tons from commercial sources.

Electronics Recycling Program

Available six days a week at four staffed centers and through special Saturday events, the Electronics Recycling Program collected 1,109 tons of materials in FY2024. This included 5,014 printers, 16,055 televisions, and 33,691 computers, serving residents, schools, nonprofits, and government agencies.

Household Hazardous Waste (HHW) Program

Through 16 Saturday collection events and weekly drop-off options, DSWA safely disposed of 484 tons of household hazardous waste in FY2024, keeping harmful materials out of landfills.

Oil Filter and Waste Oil Recycling Program

DSWA collected and recycled 405 tons of used motor oil and 21 tons of oil filters in FY2024, helping to prevent environmental contamination.

Polystyrene Foam Recycling Program

Partnering with DART Container, DSWA collected 33 tons of polystyrene foam (#6) for recycling, reducing landfill waste from this hard-to-manage material.

Household Battery Recycling

In partnership with Call2Recycle, DSWA recycled 59 tons of household batteries in FY2024, ensuring hazardous materials were handled responsibly.

Document Shredding Program

DSWA hosted 64 document shredding events statewide, securely collecting and recycling 272 tons of shredded paper.

Public Education and Outreach

FY2024 marked the first full year of operations at DSWA's new Environmental Education Center in Dover. Combined with the New Castle center, more than 3,000 students participated in educational programs and tours between the two facilities. Alongside numerous school presentations and community events across the state, these programs underscore DSWA's commitment to fostering environmental stewardship and responsible waste management.

Community Resources

Delaware residents can contact DSWA's Citizens' Response Line at 1-800-404-7080 or visit <u>dswa.com</u> for information about any DSWA program or facility.

Closing-Statement

We owe it to ourselves and to future generations to manage our State's waste efficiently and responsibly. With several competing uses for land and the desire to maintain Delaware's natural beauty, recycling is an attractive, logical, and responsible alternative to landfilling recyclable materials made from a finite supply of natural resources. We have a responsibility to future generations to conserve non-renewable natural resources. Successful implementation of the program requires the leadership, support, and active participation of the Governor's Office and the General Assembly.

RPAC Members in CY2024

- Julie Miro Wenger, Acting RPAC Chairperson representing the Delaware Food Industry Council.
- Michael Parkowski representing the Delaware Solid Waste Authority (DSWA).
- Tim Ratsep representing the Department of Natural Resources and Environmental Control (DNREC).
- Steve Tigani representing the alcoholic beverage industry.
- Rustyn Stoops representing the Delaware Chamber of Commerce.
- Dee Durham representing the Delaware Association of Counties.
- Sewell McCabe representing the soft drink industry.
- Gerald Morris representing the Delaware League of Local Governments.
- Paul Beane representing the waste hauling industry.
- Vikram Krishnamurthy representing a community-based or public-interest group.
- Brigid Gregory representing a community-based or public-interest group.
- Babita Jagnanan representing a community-based or public-interest group.
- Brian Loy representing a community-based or public interest group.
- Vacant representing a community-based or public-interest group.
- Vacant- one recycling industry seat.
- Vacant one Delaware Restaurant Association representative.