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# **Annual Report of the Recycling Public Advisory Council**

**Twenty-Third Edition**

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**Presented to the Honorable John Carney, Governor of Delaware and  
the 152<sup>nd</sup> Delaware General Assembly**

**November 2024**

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**Authored by:** Recycling Public Advisory Council (RPAC)

**Edited and prepared by:**

Department of Natural Resources and Environmental Control (DNREC)  
Division of Waste and Hazardous Substances  
Compliance and Permitting Section

**For more information contact:**

Recycling Public Advisory Council via

Email: [recycle@delaware.gov](mailto:recycle@delaware.gov)

Website: [Recycling Public Advisory Council](#)



## Executive Summary

The General Assembly enacted Delaware’s Universal Recycling Law (UR Law) on June 8, 2010, and established ambitious recycling goals for the State. 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 2023 (CY2023).

### *The CY2023 recycling rate for Delaware was 37.5%*

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 37.5% of its municipal solid waste in CY2023. 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.

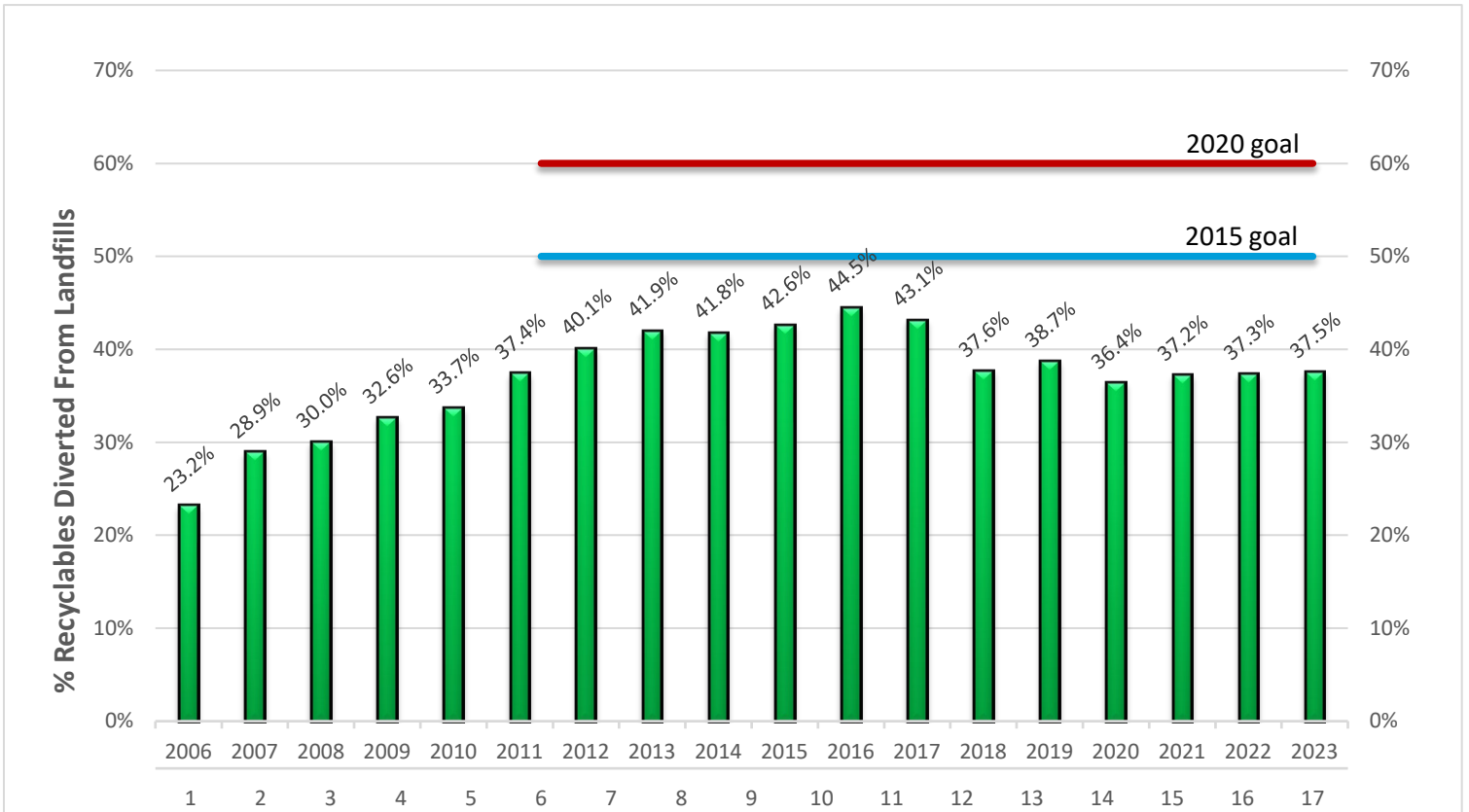
### CY2023 Recycling Rate Summary in Tons

<b>Diverted Recyclables</b>	<b>MSW Disposed</b>	<b>Total Municipal Solid Waste</b>	<b>Percent Diverted Recyclables</b>
468,445	779,491	1,247,936	37.5%

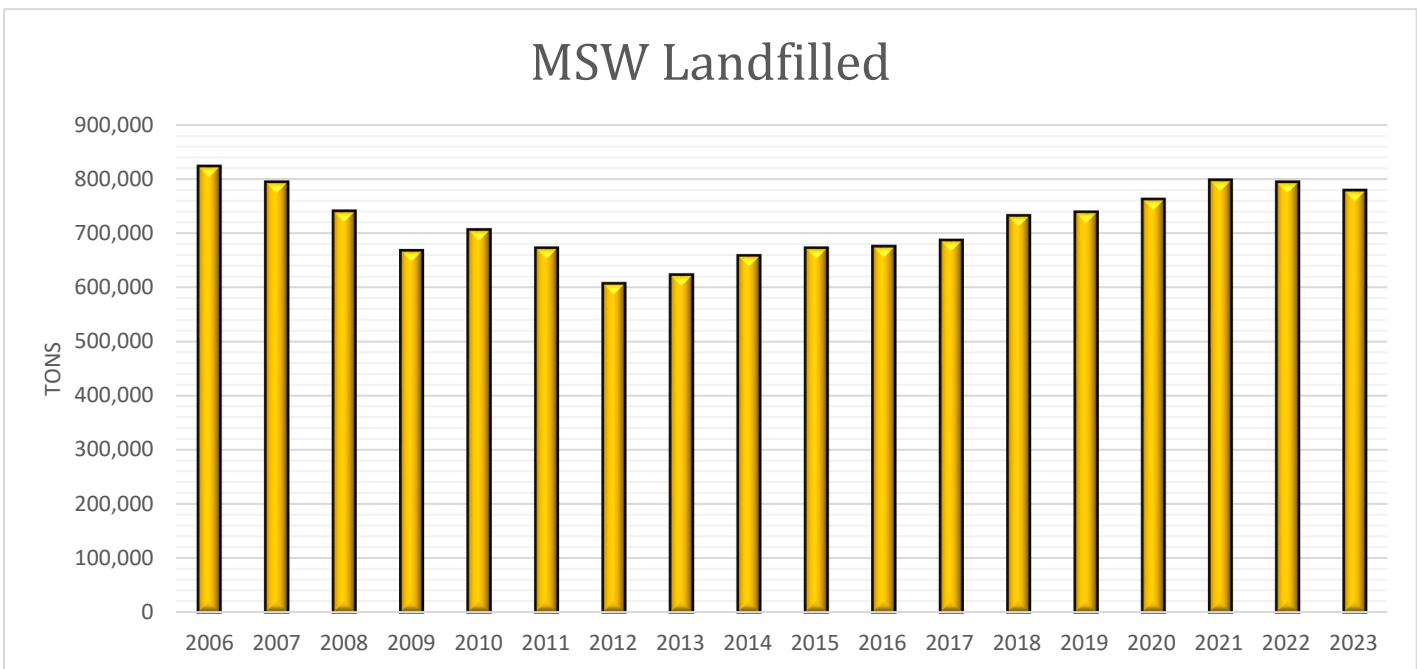
For the full report visit: [Assessment of Municipal Solid Waste Recycling CY2023](#)

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 CY2023 data shows the residential recycling amount increased 24,093 tons, but the commercial recycling amount decreased 29,167 tons when comparing CY2022 to CY2023. This resulted in the diversion rate remaining essentially the same from 2022 to 2023 (37.3% to 37.5%). The amount of waste landfilled decreased (year over year) for the second consecutive year for the first time since 2012 (see Figure 2). 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 tire-derived 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 actually achieved.

**Figure 1 - Recycling Rates in Delaware**

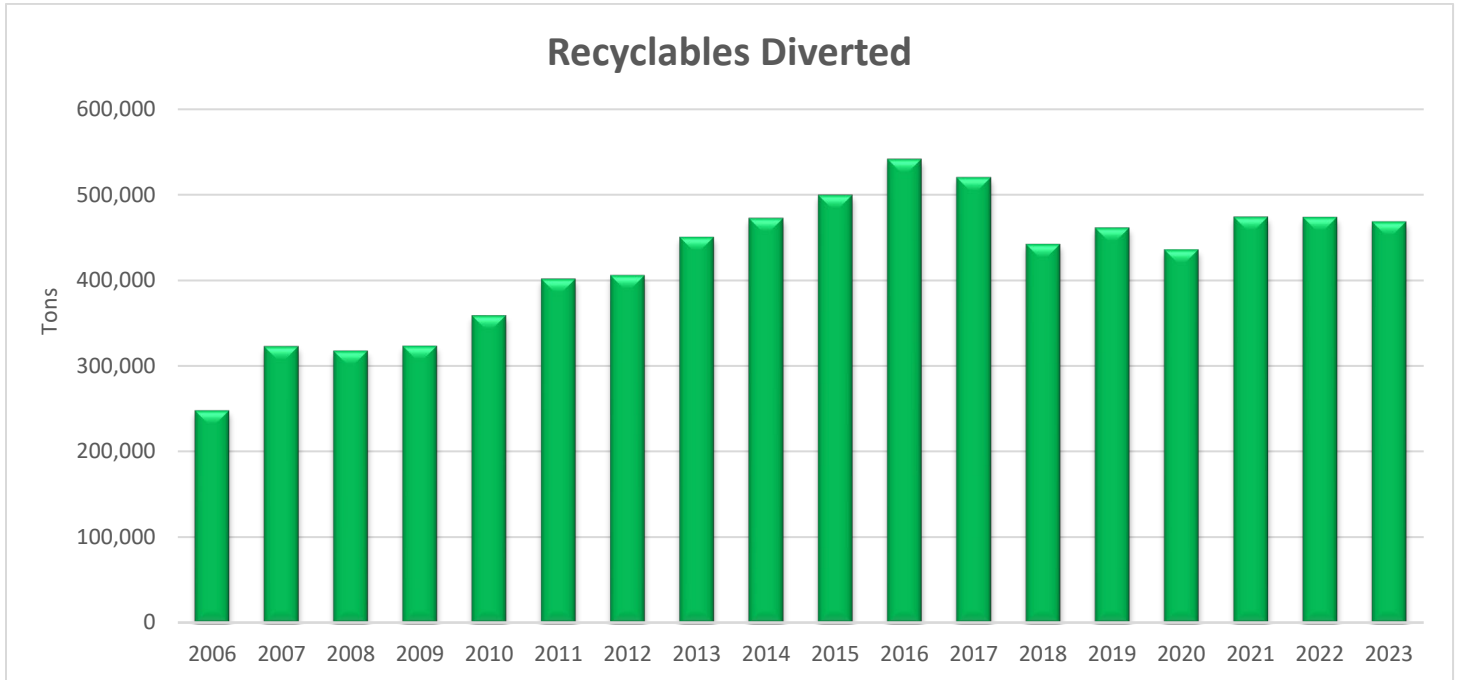


**Figure 2 – Municipal Solid Waste (MSW) Landfilled in Delaware**



**12,940,342 tons of material have been landfilled since 2006.**

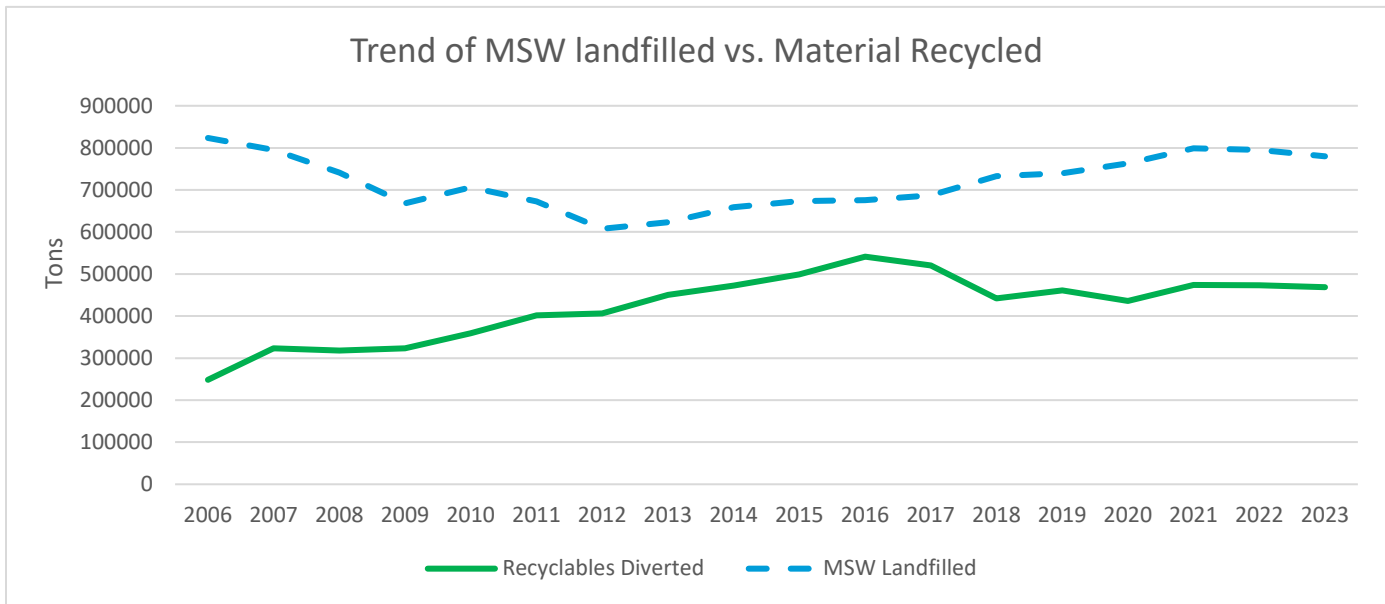
**Figure 3 – Recyclables Diverted from Landfills in Delaware**



**7,619,012 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 Material Recovery Facility (MRF) where the majority of 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. Outreach and education still need to continue so that all Delaware residents and businesses know what is acceptable to put in their recycling cart whether they are at home, work, or school. 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. However, the number of people moving and visiting from out of state where recycling processes are different and national messaging creates some problems.

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



779,491 tons of MSW were landfilled and 468,445 tons of recyclables were diverted in 2023.

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 ~1,031,890 in 2023. Using the total MSW produced, each resident generated 6.6 pounds of trash per day in 2023.

# Environmental Value of Delaware's Recycling and Diversion Activities for 2023



## Recycling in Delaware Conserves Natural Resources and Strengthens Our Economy

Recycling Saves **448,854** Tons of Waste From Landfills

Collecting, sorting, and processing recyclable items into new inputs for manufacturing uses energy and generates fewer emissions than mining, drilling or extracting all the raw materials needed for manufacturing.

Recycling in Delaware reduces greenhouse gas (GHG) emissions by **812,520** metric tons of carbon dioxide equivalent (MTCO<sub>2</sub>E).



This reduction is equal to the emissions produced by **172,510** vehicles.



or

by **33.9** million cylinders of propane for home barbecues.

Recycling in Delaware reduces energy use by **5.6** million British thermal units (Btu).



This reduction is equal to **46.5** million gallons of gasoline.



or

The energy used to power **61,124** homes for a year.



Recycling in Delaware supports more than **\$58 million** in wages.

**Note:** EPA's Waste Reduction Model (WARM) Calculator Version 16 was used to generate these statistics.  
**Note:** These are the latest full-year statistics from **2023**.

# TOTAL COLLECTION EVENTS OVERVIEW

## FISCAL YEAR 2023

**443** TONS OF  
HOUSEHOLD HAZARDOUS WASTE  
COLLECTED



**224**

HOUSEHOLD HAZARDOUS  
WASTE COLLECTION EVENTS

**248** TONS OF DOCUMENTS SHREDDED



**64** DOCUMENT  
SHREDDING EVENTS

### COLLECTION POINTS

Collection Events  
**73 Tons**

EMM Participating Centers  
**770 Tons**

Schools  
**219 Tons**

Non-Profits  
**11 Tons**

Government  
**111 Tons**



**1,184** TONS OF  
ELECTRONICS RECYCLED





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

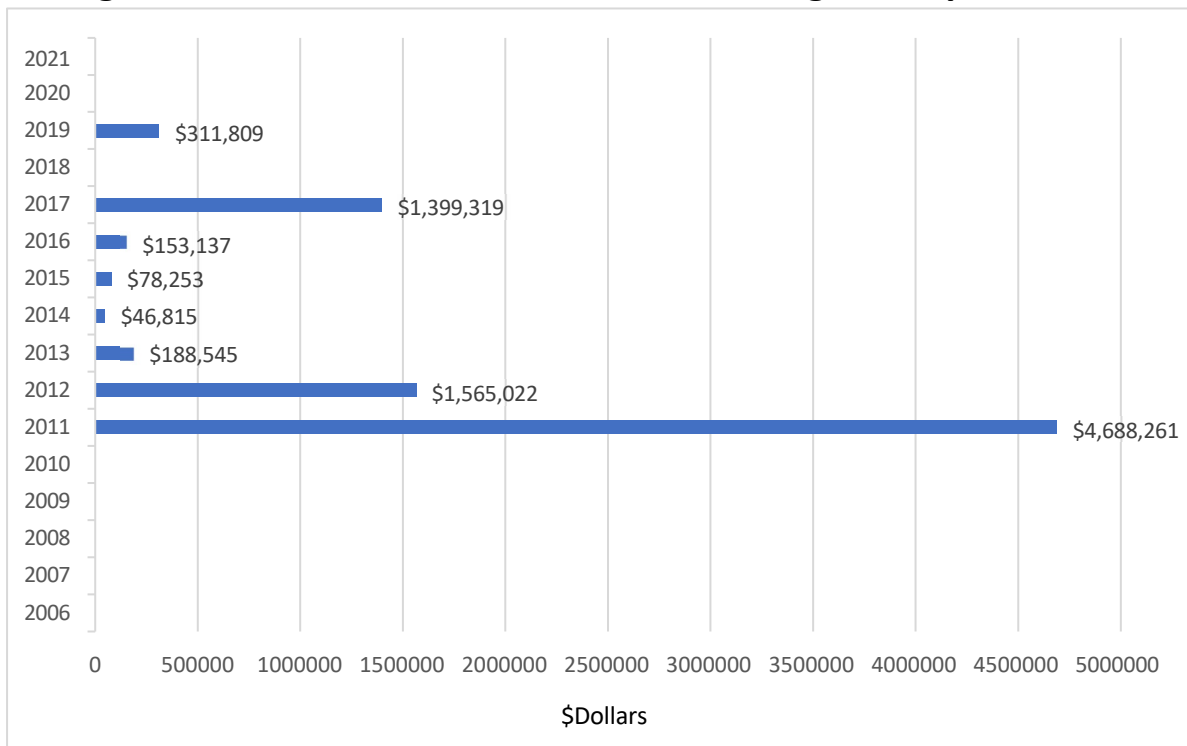
- 1. Promote Legislation that reinforces waste reduction and increased recycling in Delaware so that the goals of the Universal Recycling Law can be achieved.** Support businesses in Delaware that utilize reuse and repair services that helps lessen the amount of waste being sent to our landfills.
- 2. Expand your own recycling knowledge and inform your constituency.** Follow DNREC on social media and share valuable content with constituents. Share Delaware’s Recyclopeda search tool (<https://de.gov/recyclopedia>) 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.
- 3. Request OMB work with DNREC to review recycling practices in State buildings.** State office buildings are not exempt from the [Universal Recycling Law](#) and [Regulations](#). 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.
- 4. 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.
- 5. 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.
- 6. Support appropriation of annual funding to cover the transportation fees for one grade level in each school district in Delaware to attend a DSWA Environmental Education Program Field Trip.** DSWA currently operates an Education Building within the Delaware Recycling Center in New Castle and recently opened one in Dover. The DSWA Environmental Education Program provides a hands-on opportunity for students to see and understand the recycling process. Providing students access to this program reinforces why recycling and diversion are important and supports education efforts on behavior change.
- 7. 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.

## 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, setting funding categories/priorities for the Recycling Grants Program, providing guidance on projects that are eligible to receive funding, providing recommendations on recycling outreach 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 methodology established by the Council when it was created. This methodology follows EPA’s measurement protocol 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 also 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 allocated by the Grant Program in 2019.

**Figure 5 – Grant and Low Interest Loan Program Expenditures**



# 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 FY2025 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. An enhanced plastic bag ban went into effect on July 1, 2022, banning all retail stores (except restaurants) from utilizing 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.

**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 starting 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.

## Public Education and Outreach

DNREC successfully utilized outreach events, social media, and presentations to spread the recycling and waste reduction message to residents.

The Marketing 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.

## Enforcement

DNREC is responsible for enforcing the Universal Recycling Law. Numerous waste service providers and property managers have been cited for violating the law.

# Marketing Campaign Graphics

## Recycling in Delaware poster

### ♻️ RECYCLING IN DELAWARE

☑️ **ACCEPTABLE**

Place only these materials loose, empty, clean and dry in your recycling cart or dumpster:



**PAPER**  
Magazines, junk mail, paper bags, office paper, newspaper, etc.



**PLASTIC CONTAINERS**  
Leave lids on.



**CANS, BOTTLES, JARS**  
Remove jar lids and recycle separately.

**KEEP YOUR RECYCLING OUT OF BAGS. PLACE ITEMS LOOSE IN THE CART.**



**CARTONS, PAPERBOARD, CORRUGATED CARDBOARD**

☒ **NOT ACCEPTABLE**

Keep these items out of your recycling cart or dumpster:



**SHREDDED PAPER**



**FROZEN FOOD PACKAGING**



**FOOD WASTE**



**COFFEE CUPS**



**BATTERIES**



**STYROFOAM**



**GARBAGE**



**MIRRORS AND WINDOW GLASS**



**TANGLERS**  
Garden hoses, string lights, nylon rope, etc.



**SCRAP METAL**



**PLASTIC BAGS**  
Return to retail store.



**ELECTRONICS**



**YARD WASTE**



**DELAWARE RECYCLES**  
*It's second nature.*

[www.de.gov/recycling](http://www.de.gov/recycling)  

## Recyclopeda flyer

The Solution to all Your Recycling Questions

## Recyclopeda



Can this be recycled? Or what should I do with it?

DNREC's Recyclopeda search tool can help you find out what can be recycled or how you can properly dispose of unwanted items.

de.gov/recyclopeda




**DELAWARE RECYCLES**  
*It's second nature.*

## At-store drop-off flyer

DROP OFF BAGS HERE

**DO NOT** put plastic bags or film in your recycling cart at home.

Place items pictured below in the recycling drop-off box provided by this store.

Make sure that all bags are completely empty by removing receipts and other trash.

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CHECKOUT OR STORE-BOUGHT PLASTIC BAGS/FILM



Checkout bags



Produce bags



Ice bags



Case overwrap



Bread bags

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BAGS AROUND YOUR HOUSE



Zipper sandwich bags



Newspaper sleeves



Dry cleaning bags



Bubble wrap



Air pillows

**REMEMBER:** Empty, dry plastic bags and film must only be recycled at retail stores and **NOT** in your curbside recycling cart or dumpster.



**DELAWARE RECYCLES**  
*It's second nature.*

[de.gov/recycling](http://de.gov/recycling)  

## Social Media sample

2024

COMPOST BIN AND RAIN BARREL SALE

ORDER NOW THROUGH JULY 11

PRE-ORDER AND PICKUP SALE. THERE WON'T BE ANY PRODUCTS FOR SALE AT THE PICKUP EVENT ON JULY 13.

12

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 2023, DNREC continued to develop and refine Recyclopedia to fit the needs of all Delawareans. This search tool is located on [de.gov/recyclopedia](https://de.gov/recyclopedia). The tool allows residents of Delaware to know exactly where and how to dispose of over 425 common household items that they may no longer have a use for. An app will be released in the Fall of 2024.



## Delaware Solid Waste Authority (DSWA) Activities

**Recycling Drop-off Centers** - DSWA's recycling drop-off centers are staffed facilities that help ensure proper recycling practices and reduce contamination of recyclables. These centers offer convenient locations for residents to drop off single-stream recycling, as well as used motor oil, oil filters, household batteries, and corrugated cardboard. Available statewide, these centers support Delaware's goal of effective waste management.

**Electronics Recycling Program** - DSWA provides an electronics recycling program that operates six days a week at four staffed Recycling Drop-Off Centers and during special Saturday events throughout the year. In FY2023, this program collected 1,184 tons of electronic goods, including 4,860 printers, 15,648 televisions, and 63,408 computers. The service is used not only by residents but also by schools, non-profits, and government agencies, demonstrating its wide-reaching benefits.

**Household Hazardous Waste (HHW) Program** - DSWA's Household Hazardous Waste (HHW) Program held 16 Saturday collection events were held across the state in addition to the year-round weekly collections at Recycling Drop-Off Centers. This initiative resulted in the safe disposal of 443 tons of hazardous materials, ensuring that these potentially harmful items were kept out of landfills and handled responsibly.

**Oil Filter and Waste Oil Recycling Program** - Through DSWA's Oil Filter and Waste Oil Recycling Program, 394 tons of used motor oil and 24 tons of oil filters were collected and recycled in FY2023. This program plays a key role in managing these materials safely and preventing environmental contamination.

**Polystyrene Foam Recycling Program** - In partnership with DART Container, DSWA collected 32 tons of polystyrene foam (#6) for recycling. This initiative focuses on the proper disposal of a challenging material, helping to reduce waste that would otherwise end up in landfills.

**Household Battery Recycling** – In collaboration with Call2Recycle, DSWA collected 59 tons of household batteries in FY2023. Proper recycling of batteries helps prevent harmful chemicals from entering the environment, contributing to a more sustainable waste management system.

**Document Shredding Program** - To assist residents in securely disposing of personal documents, DSWA hosted 64 document shredding events, which resulted in the collection and shredding of 248 tons of paper. This service not only protects sensitive information but also ensures that the shredded materials are recycled.

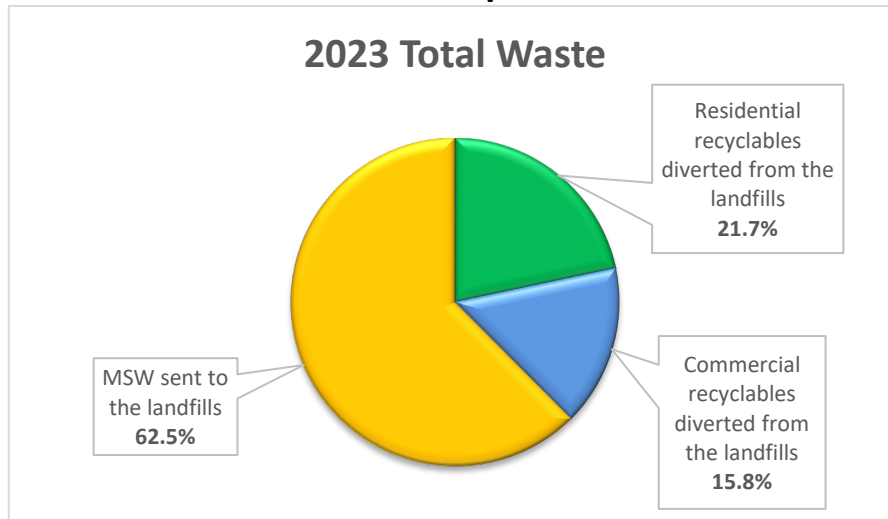
**Public Education and Outreach** - In FY2023, DSWA welcomed 2,411 visitors to its Environmental Education Building in New Castle and provided outreach to thousands more through school presentations and community events. DSWA also prepared for the opening of a second Environmental Education Center in Dover, aimed at expanding its reach in Kent and Sussex Counties. These programs highlight DSWA's commitment to fostering environmental awareness and responsible waste management.

DSWA encourages citizens of Delaware to contact them if they are in need of environmental information concerning any DSWA program or facility. DSWA provides a Citizens' Response Line (800-404-7080). In addition, DSWA's website, [www.dswa.com](http://www.dswa.com), provides even more information for Delaware residents. These resources provide valuable information and keep the personal touch that has helped to establish the Authority as a leader in the environmental community.

## 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 2023 being the thirteenth year of industry reporting. This data includes residential and commercial recycling information including yard waste. In CY2023 the residential recycling rate increased by 2.4% and the commercial recycling rate decreased 2.3% from the 2022 rates. For the full report visit: [Assessment of Municipal Solid Waste Recycling for CY2023](#). 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 6 – CY2023 Total Municipal Solid Waste Breakdown**



Breakdown of diverted recyclables into residential and commercial.

### **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 CY2023**

- Julie Miro Wenger, Acting RPAC Chairperson - Representing the Delaware Food Industry Council.
- Michael D. Parkowski - representing the Delaware Solid Waste Authority (DSWA).
- Timothy 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 Jagnaman – 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