

The Annual Report of the Recycling Public Advisory Council



**Presented to the
Honorable John Carney, Governor of Delaware
and the 151st Delaware General Assembly**

**November 2020
Nineteenth Edition**

The Annual Report of the Recycling Public Advisory Council November 2020 (Nineteenth Edition)

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Executive Summary

Due to the passage of Delaware's Universal Recycling Law, enacted on June 8, 2010, Delaware recycled or diverted approximately 39% of its municipal solid waste in CY2019, including both commercial and residential materials diversion. The RPAC continues to seek ways to achieve both the 2015 goal of 50% residential and commercial diversion and the 2020 goal of 60%.

2019 Recycling Rate Summary in Tons

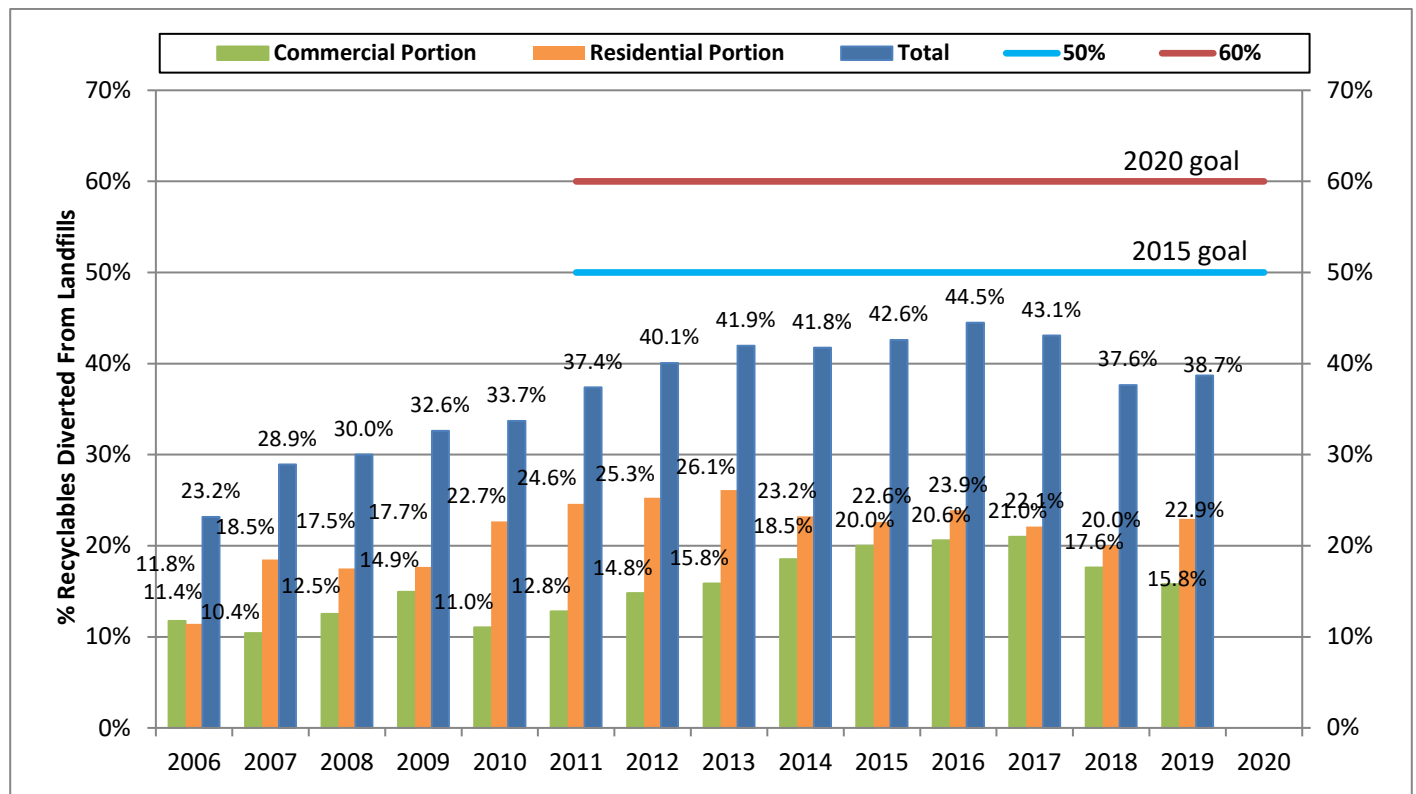
Diverted Recyclables	MSW Disposed	Total Municipal Solid Waste = Diverted Recyclables + MSW Disposed	Percent Diverted Recyclables
461,230	730,578	1,191,808	39%

For the full report visit:

<http://www.dnrec.delaware.gov/dwhs/Recycling/Documents/2019-delaware-recycling-report-dsm-environmental-services.pdf>

The State has experienced success diverting materials from landfills, but the goals set forth in the Law have not yet been achieved. Achieving these goals directly reduces burdens on our current landfills and prolongs the need for the costly construction of new landfills or expanding existing ones to manage Delaware's waste. As illustrated by this chart, Delaware has made significant strides in the diversion of waste to new uses and in the reduction in the amount of waste sent to landfills since 2006.

Residential, Commercial and Total Diversion Rates in Delaware, CY2006 – 2019



Background

The Recycling Public Advisory Council was formally recognized with the passage of the Universal Recycling Law in 2010. Members of the Council are volunteers appointed by the Governor. The Council's main tasks include offering advice to the 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 and providing recommendations on recycling outreach by the Department and Authority. The Council plays a key role in reporting to the Governor and General Assembly on the Annual Status of Recycling in Delaware. RPAC holds periodic meetings throughout the year to discuss opportunities to engage the public. An additional responsibility of the Council is to maintain an approved, sound and current methodology to measure recycling rates that is both scientific and comparable to other state and federal measures.

Measurement and Reporting

The 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. The 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 2019 being the ninth year of industry reporting. This data includes single family, multi-family, and commercial (including schools, communities, and businesses) recycling information. In CY2019 the residential recycling rate increased by 2.9% while the commercial rate dropped 1.8%. For the full report visit: [Assessment of Municipal Solid Waste Recycling For Calendar Year 2019](#)

Recycling Grants Program

The Recycling Grants and Low Interest Loan Program was funded through fees established in the Universal Recycling Law and the fee sunset on December 1, 2014. A small balance remains in the account made up of unspent funds and interest on the fund balance. A final grant cycle, Cycle 9, was executed during FY 2020 which will deplete the fund balance. Unless a new funding source is identified, this program will be suspended after Cycle 9 is complete.

Cycle 9 - Recipients Awarded Funding

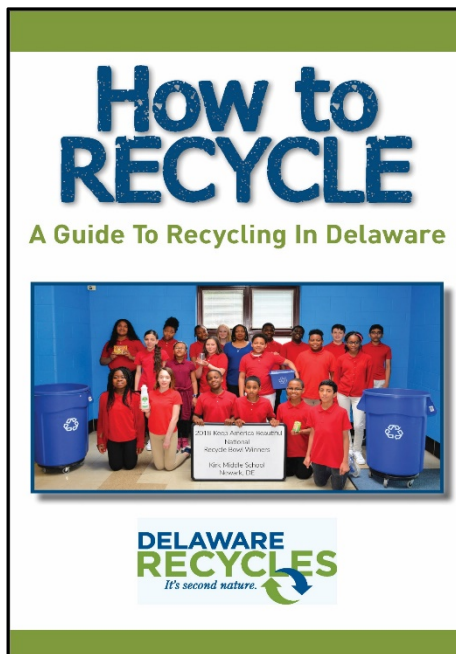
Applicant	Funding	Amount Reimbursed	Products / Services
School trips - DSWA Education Center	\$86,361.00	\$8,300.00	Education /Outreach
AllOver Media	\$110,000.00	\$22,500.00	Advertising
Caesar Rodney School District	\$13,550.00	\$11,750.00	Bags, bins, water
Cape Gazette	\$58,251.00	\$600.00	Print advertising
Delaware Center for Horticulture	\$23,400.00	TBD	Food waste initiative
Holy Cross	\$380.00	TBD	Classroom bins
Newark Recycle Coach	\$5,900.00	TBD	On-line tool
Odyssey Charter School	\$1,716.00	TBD	Reusable service ware
Sussex Habitat for Humanity	\$40,442.00	\$40,442.00	Truck / truck wrap
Zerocycle	\$50,000.00	\$25,000.00	Data analytics
Total Awarded	\$311,809.00		

Total Expenditures	\$	\$100,292.00 (to date)	
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Outreach and Education

The Recycling Public Advisory Council believes education and outreach initiatives to schools, businesses and communities on what and how to recycle are the most important steps for continuing progress. Growing and expanding recycling initiatives and implementing new programs within Delaware represents an economic development opportunity. These programs and initiatives have the potential to create new jobs as well as leaving future generations with a cleaner, more sustainable environment.

How to Recycle Guide



How to Recycle Poster



Example of print advertising



Recent Recycling Efforts in Delaware

The State of Delaware has promoted recycling since 1975. The following is a summary of recent recycling achievements in 2019:

- **Recycling Grants Program** – The remaining balance of the *Recycling Grant and Low Interest Loan Program* was used for a final grant cycle (Cycle 9) during FY2020. Once this grant cycle is concluded, the funds available for grants will be exhausted. The program will cease to exist unless funds are reallocated from another source or a new funding source is created.
- **DNREC Recycling Outreach** – DNREC has done significantly less outreach since the end of 2019 due to COVID 19 and the restrictions imposed. There is an effort to be more involved in virtual events until such time that we can participate more broadly in the future.
- **Commercial Recycling Compliance Program** – Based on data provided by past Annual Reports, DNREC concluded that the Commercial sector represented an opportunity to increase diversion and recycling. CAPS Staff conducted recycling compliance inspections and provided technical assistance to the commercial sector in CY 2019.
- **Plastic Carryout Bag Ban and At-Store Carryout Recycling Program** – During the 150th

Legislative Session, HB 130 amended the language in 7 Del C. §6099A, banning single-use plastic carryout bags and expanding upon the existing At-Store Recycling Program. The existing requirements will continue, however stores subject to this program will now be limited from providing single-use plastic carryout bags for only specific uses, thereby encouraging a shift to reusable bags. The purpose of the bill, as detailed in the preamble, is to clean up Delaware's communities and watersheds, reduce storm water and trash management costs to taxpayers, and promote the health and safety of watersheds, wildlife and humans, and the ecosystems food chain. The Plastic Carryout Bag Ban is set to go into effect on January 1, 2021.

- **Organics Diversion** - DNREC's Division of Waste & Hazardous Substances conducted a compost bin pre-order sale in 2019 to promote backyard composting. Compost bin distribution occurred in each county, including Lewes, Dover, and Delaware City. 180 compost bins and 269 compost accessories such as kitchen food scrap pails, thermometers, and compost tuners were ordered by Delaware residents.

DNREC continues to operate the Polly Drummond Hill Yard Waste site and spent approximately \$160,000.00 to divert and mulch 10,494 tons of yard waste.

The Delaware Center for Horticulture (DCH) received a Universal Recycling Grant for \$23,400. The goal of the project is to create and host an educational symposium on the topic of food waste diversion. The DCH plans to target commercial and institutional sector's needs and solutions for improved management strategies as a complement to the education and composting education and outreach offered to residential/home gardener audiences.

Status of the Recycling Goals

The passage of the Universal Recycling Law established diversion goals of 50% for MSW and 72% for solid waste by 2015. The diversion rate of recyclables for CY 2019 was 38.7% for the MSW stream which is below established diversion goals. In order to reach the goal of 50% set in our recycling legislation (and 60% in 2020), more diversion or a reduction in overall waste will need to be achieved. Activities to achieve these goals will be directed at both the residential and the commercial sectors to ensure achievement.

To best get to the goals, some of the following concepts have been highlighted:

- Auditing of and compliance by all State Government Agencies and Facilities to the Universal Recycling Law.
- Expansion of commercial sector recycling participation and compliance inspections by DNREC.
- Additional recycling outreach and education efforts focused on what materials to recycle and how and where to recycle them.
- Technical assistance to the commercial, institutional and local government sectors to help increase, manage, monitor and expand recycling activities.
- Supporting the expansion of markets to accept greater amounts of material for diversion.
- Support of a markets development initiative to look at increasing local demand for materials currently being diverted.

Every five (5) years, DSWA generates a Total Solid Waste (TSW) recycling study. The last report, which was published in October 2015, was used to see if the State hit the TSW diversion rate that is part of the Universal Recycling Law. Based on the data provided for this report, Delaware had hit a TSW rate of 72%, which was the goal established for January 1, 2015. TSW is significantly different than MSW both in weights collected and types of materials included in reporting. MSW, which is the waste we typically think of as household and commercial waste, is a subset of TSW. TSW includes MSW, but also includes other categories of solid waste such as poultry waste, asphalt, concrete, coal ash and more. These wastes are typically recycled or put to beneficial use by the industries that create them because it makes economic sense to do so. The next report is scheduled to be issued in the fall of 2020.

Current Recommendations

The RPAC's recommendations to the Governor and the General Assembly include the following steps to support our efforts to increase the recyclables diversion rate:

(1) Request DNREC and OMB work together to create a matrix of state hauling contracts. OMB and DNREC will then work to right size and adjust containers and service contracts to optimize recycling and allow State offices to have more efficient and impactful waste services in support of the 60% diversion goal outlined in 7 Del. C. §6059.

- The State's current waste and recycling bid was awarded in 2020 adding Republic Services as the third (3rd) hauler available for State buildings to utilize for solid waste services.
- The Compliance and Permitting Section's (CAPS) Waste Management and Reduction Branch has established a relationship with the Office of Management and Budget's Sustainability Coordinator to start researching and assessing service at the buildings located in Sussex County. There are approximately 300 State owned properties that are impacted by this contract.
- CAPS will ensure that all communication, signage and education around recycling has been updated to reflect the current program.
- CAPS will work with Agencies to 'right size' containers and adjust service, based on the current State Contract for hauling.
- CAPS staff will coordinate with OMB, Facilities and the Janitorial Service Providers to ensure recycling is happening, to identify and address contamination and support more efficient waste diversion.

(2) RPAC will work with DNREC to determine a funding stream to allow the low interest and loan program to continue. The current funding source for the program ended with the sunset of the recycling fee in 2014 which replaced the bottle deposit fee when the Universal Recycling Law was passed. All of the funds have been allocated through Cycle 9. However, since all grants have not yet been completed there may be funding available for an additional Cycle 10.

- RPAC worked with DNREC to locate additional sources of funding to keep this program active. Over the last 8 grant cycles a total of \$8,610,773 has been spent, providing an average of \$1,076,347/cycle. A robust grant and loan program provides support to diversion activities and allows Delaware to strengthen economic development, create jobs and reduces the expenses associated with creating new landfills for our disposal needs.

(3) Continue to educate your staff and constituency on how and why to "Recycle Right" in DE.

- Legislators and their staff shall ensure they are knowledgeable about the current recycling program in Delaware and ensure that their offices are complying with the UR law.
- All State employees have access to a training module through the Delaware Learning Center to learn this information quickly and easily. The training is entitled *Delaware Recycles – A Guide to Recycling in Delaware*.
- Engage your constituency by including information on recycling as part of your ongoing communications plan. This can include information about recycling, links to the Delaware Recycles or DNREC Facebook pages, trending hashtags, links to State websites (DNREC, DSWA, etc.) or event announcements (e.g. Household Hazardous Waste Collection Days, Compost Bin Sale, Shredding events, etc.).

- Attend the RPAC meetings or have a staff member attend so that the most up to date information about the Universal Recycling program is being communicated.
- Work with DNREC staff to identify diversion and recycling opportunities for your legislative district. This could include presentations to local groups, specific meetings with businesses/institutions or question/answer sessions about technical assistance available to promote diversion.

(4) Review By-laws and Board Composition to be representative of the recycling industry and community in Delaware.

- RPAC has historically had a By-Laws subcommittee that reviewed the Council's actions to make sure that we were compliant with other like groups and that our By-laws reflected what the Council and Governor's Office required. We will seek to have this Ad-Hoc committee reinstated for this process in CY 2021.
- The membership of the RPAC was created via the Universal Recycling Law, 7 Del.C. §6058 and outlined specific membership on the committee at the time the law was implemented. Given the changes that have happened within Delaware, as a result of the Universal Recycling Law, it might be time to revisit the composition of the Council to ensure it is still representative of the recycling industry and community within Delaware.

(5) Promote legislation that reinforces recycling in Delaware and helps support the diversion rate and goals outlined in 7 Del. C. §6056.

DNREC Activities

Supporting the diversion of electronic waste at all State government offices.

With assistance from the Department of Technology and Information (DTI), DNREC participated in the 2019 [State Electronics Challenge](#)- a free partnership program administered by the Northeast Recycling Council (NERC). The program supports organizations in reducing the environmental impacts of computers through promoting life cycle stewardship practices in procurement, use and operation, and the proper end of life management. DTI transferred or donated 105 computers for reuse to the Partners in Technology Program and sent 1,337 computers to a certified recycler. Some of the environmental benefits listed in the 2019 report include: energy savings equivalent to electricity needed to power 1,402 homes for one year and a reduction of 149,000 pounds of waste equivalent to the waste generated by 35 households in one year. The report represents achievements for all State of Delaware government offices.

Supporting the RPAC

In fulfillment of its responsibilities under the Universal Recycling Law and previously under Executive Order No. 90, DNREC continues to provide support to the RPAC. DNREC tasks in support of RPAC include but are not limited to:

- Schedule and publicize meetings
- Prepare and distribute meeting agendas and meeting minutes
- Participate in Subcommittees
 - Measurement and Reporting (M & R) Subcommittee which is responsible for establishing and enforcing recycling reporting requirements
 - Education and Outreach Subcommittee
 - Grants Sub-Committee
- Draft documents for RPAC meetings and Subcommittees
- Prepare and distribute RPAC's Annual Recycling Report to the Governor and General Assembly

Supporting the Diversion of Yard Waste

173,845 tons of leaf and yard waste and trees and branches were diverted from Delaware's landfills in 2019.

Backyard compost bins were available in Dover, Delaware City, and Lewes. 180 compost bins and 269 compost accessories were ordered and delivered to Delaware residents and DNREC staff provided onsite education as well as ongoing support to users of the compost bins.

Implementing Recycling Legislation

Since the passage of the Universal Recycling Law, DNREC continues with implementation of the tasks required by the Universal Recycling law.

DSWA Activities

Recycling Drop off Centers

The recycling drop off centers are staffed centers designed to reduce contamination of recyclables and assist Delaware residents while dropping off material. Residents can drop off single stream recycling as well as used motor oil, oil filters, household batteries, and corrugated cardboard at every center in the State.

Electronic Goods Recycling Program - 2,383,215 pounds of electronic goods or 47,237 electronic devices were collected

Household Hazardous Waste (HHW) Program held fourteen Saturday events. Approximately 9,197 vehicles dropped off 281,692 pounds of household hazardous waste (HHW). Weekly events collected an additional 439,283 pounds of material, making a grand total of 891,985 pounds collected for FY 19.

Oil Filter and Waste Oil Recycling Programs collected 21 tons of oil filters and 446 tons of used motor oil

Polystyrene Foam Recycling Program collected and recycled 18,254 pounds of polystyrene (#6 foam).

Household Battery Recycling collected and recycled just over 116,000 pounds of household batteries.

Document Shredding Program collected 589,838 pounds of paper documents.

Public Education and Outreach

DSWA's Environmental Education Building. DSWA participated in 27 community presentations reaching over 15,000 residents.

In FY 19, DSWA placed an important emphasis on its public outreach effort by attending over 19 different events throughout the state, which reached over 300,000 Delaware residents. DSWA attended events such as the Delaware State Fair in Harrington and many others. DSWA attends events like these to promote environmental awareness throughout the state as well as to educate the public on programs and facilities that DSWA provides for residents.

The DSWA Environmental Education Building is located at the Delaware Recycling Center, next to the Material Recovery Facility (MRF) in New Castle. In the sixth year of operation, over 4,500 children from 65 different Delaware schools visited the center and learned about recycling, composting and conservation.

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) which answers approximately 50 calls a day from residents. In addition, DSWA's website, 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 DSWA as a leader in the environmental community.

RPAC Members in CY 2019

*Stan Mills. RPAC Chairman. Commissioner, City of Rehoboth Beach
—Representing the Delaware League of Local Governments
(Resigned from RPAC at the January 2020 Meeting)

Julie Miro Wenger. Executive Director, DE Food Industry Council.
—Representing the Delaware Food Industry Council
(Appointed Acting Chair at the January 2020 Meeting)

Timothy Ratsep. Director, Division of Waste and Hazardous Substances, DNREC
—Representing the Department of Natural Resources and Environmental Control

Michael D. Parkowski. Chief of Business and Governmental Services, Delaware Solid Waste Authority
—Representing the Delaware Solid Waste Authority

**Gerald Morris, City Council Member, City of Bethany Beach
—Representing the Delaware Association of Counties

*Paul R. Bickhart. President, Recycling Express of Delaware, Inc.
—Representing the recycling industry

Steve Masterson. Waste Masters Solutions.
—Representing the waste hauling industry

Sewall McCabe.
—Representing the soft-drink industry

*Michael Fusca. Delaware Alcohol Wholesalers Association.
—Representing the alcohol beverage industry

Rustyn Stoops. Executive Director, Delaware Manufacturing Extension Partnership.
—Representing the Delaware Chamber of Commerce

Adam Webster. Grotto Pizza, Inc.
—Representing the restaurant industry

*Marianne Cinaglia.
—Representing community-based or public-interest group (one of five seats)

*Coralie Pryde. Delaware League of Women Voters.
—Representing community-based or public-interest group (one of five seats)

Todd Klawinski. Educator, Caesar Rodney School District
—Representing community-based or public-interest group (one of five seats)

Vikram Krishnamurthy. Executive Director, Delaware Center for Horticulture
—Representing community-based or public-interest group (one of five seats)

Dee Durham, New Castle County Council
—Representing the Delaware Association of Counties

Brian Loy, Re-Paint
—Representing community-based or public-interest group (one of five seats)

*RPAC wishes to acknowledge those members that stepped down in 2020: Stan Mills, Paul Bickhart, Marianne Cinaglia, Mike Fusca and Coralie Pryde. RPAC wants to thank all of you for your many years of service and your efforts in progressing recycling in Delaware!

** RPAC member appointed in 2020.



Recycling in Delaware Conserves Natural Resources and Strengthens Our Economy

Recycling Saves **433,097** Tons of Waste From Landfills

Processing recyclable items into new inputs for manufacturing as well as the collection, sorting, and processing of those items uses less energy and generates fewer emissions than mining, drilling or extracting non-recycled materials for the same purposes.

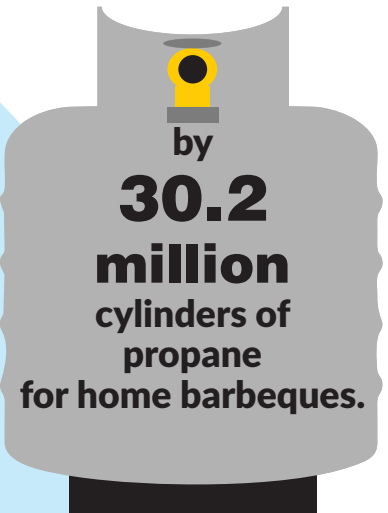
Recycling
in Delaware
reduces
greenhouse gas (GHG)
emissions by
197,730
metric tons
of carbon
equivalent
(MTCE).

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This reduction is
equal to the emissions
produced by
150,000+
vehicles.

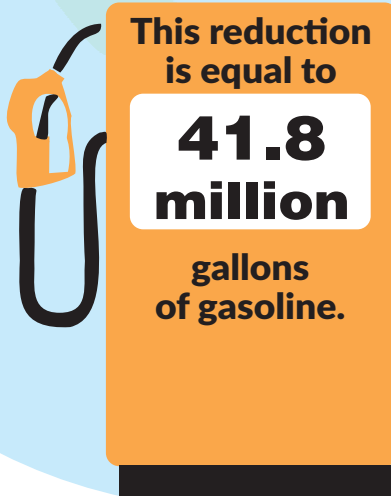


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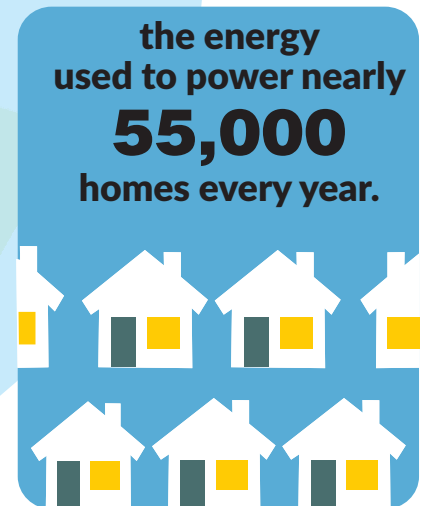


Recycling in
Delaware reduces
energy use by
5.03
million
British
thermal units
(Btu).

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or



Recycling in Delaware
supports more than

\$62 million
in wages.

Note. EPA's Waste Reduction Model (WARM) Calculator was used to generate these statistics.

SINGLE-STREAM RECYCLING FOR FY 2020 TONS RECEIVED

	Delaware Recycling Center	Milford Transfer Station	Rt. 5 Transfer Station	Total
Total Material Received (tons)	63,889	17,626	26,968	108,483

DROP-OFF CENTER PROGRAM

Item/Source	Tons	Sent To
Motor Oil	477	Heritage-Crystal Clean
Oil Filters	13	Heritage-Crystal Clean
Household Batteries	58	Call2Recycle
Polystyrene Foam	6	Dart Container
Single-Stream	975*	Republic Services
Totals	1,529	

Recovered Resource Quantities Sent To Market By Material FY 2020

Material	Cherry Island Landfill	Sandtown Landfill	Jones Crossroads Landfill	Pine Tree Corners Transfer Station	Milford Transfer Station	Rt. 5 Transfer Station	Total
(TONS) Sent to Market	CIL	CSWMC	SSWMC	PTCTS	MTS	RT 5 TS	TOTAL
Refrigerant White Goods	150.24	61.16	103.87	122.08	35.43	86.08	558.86
Non Refrigerant White Goods	206.51	164.37	532.76	320.27	87.41	437.27	1,748.59
Tires	549.78	779.05	1,636.01	94.25	41.56	37.96	3,138.61
Dry Wall	64.86	50.58	1,148.18	8.28	26.41	135.75	1,434.06
Propane Bottles	3.68	1.19	2.67	2.22	2.91	1.37	14.04
Mattresses	67.03	9.24	59.65	-	-	-	135.92
TOTAL (TONS)	1,042.10	1,065.59	3,483.14	547.10	193.72	698.43	7,030.08

Recovered Resource Quantities Used by Material
FY 2020

	Cherry Island Landfill	Sandtown Landfill	Jones Crossroads Landfill	Total
Materials (Tons Material Used)				
Alternative Materials Used For Soil Cover				
Clean Earth	383,458.00	-	-	383,458.00
Barrier	35,238.00	-	-	35,238.00
Total	418,696.00	0.00	0.00	418,696.00
Alternative Materials Used For Road Building				
Steel Slag	21,124.00	-	-	21,124.00
Clean Earth Aggregate	19,416.00	-	-	19,416.00
Chipped Yardwaste	-	5,065.30	-	5,065.30
Recycled Asphalt	13,256.00	-	-	13,256.00
Recycled Concrete	-	10,238.10	-	10,238.10
Total	53,796.00	15,303.40	0.00	69,099.40
Alternative Materials Used for Soil Amendment				
Yard Waste	1,848.00	-	4,313.00	6,161.00
Total	1,848.00	0.00	4,313.00	6,161.00
TOTALS	474,340.00	15,303.40	4,313.00	493,956.40

Electronics Collected

Primary Devices Collected	Number Collected
CPU/Laptops/Servers	9,537
Monitors	5,884
Televisions	22,513
Total Items	37,934

FY 20 Electronic Goods Collection Totals	
Material Collection Point	Pounds Collected
Saturday Collection Events	207,389
Weekly/Monthly Collection	1,489,545
Government Offices Collection	380,724
Non-profits Collections	25,310
School Collection	330,080
TOTAL	2,433,048
TOTAL COST	\$649,562.24

FY 20 Document Shredding Collection Totals	
Material Collection Point	Pounds Collected
Saturday Collection Events	117,020
Monthly Facility Shredding Events	287,455
TOTAL	404,475
TOTAL COST	\$731,856.95

Household Hazardous Waste Weekly Collection Events		
July 2019-June 2020		
Location	Pounds Collected	Cost
Delaware Recycling Center	333,046	\$570,667.72
Cheswold Collection Station	123,891	\$285,982.72
Jones Crossroads Landfill	143,046	\$288,244.20
Total	599,983	\$1,144,894.64

Household Hazardous Waste Special Saturday Collection Events		
Event (FY 2020)	Pounds Collected	Cost Per Event
July 2019- St. Anne's School	20,420	\$24,517.07
July 2019 -Milford Transfer Station	16,460	\$21,278.25
August 2019-Mt. Pleasant Elementary School	33,457	\$42,990.75
September 2019-Hocker's Store	19,942	\$25,852.44
October 2019- Frawley Stadium	32,995	\$35,365.50
October 2019- Long Neck	12,158	\$15,857.82
November 2019- Glasgow High School	28,960	\$37,138.00
March 2020 - Fenwick Island	Canceled	
April 2020 - St. Anne's School	Canceled	
April 2020 - Mt. Pleasant	Canceled	
April 2020 - Blue Hen Corporate Center	Canceled	
May 2020 - North Star Elementary	43,776	\$49,577.19
June 2020 - Delaware City	13,615	\$14,248.51
June 2020 - Woodbridge	8,395	\$15,248.51
TOTAL	230,178	\$282,074.04