



# 2023 ANNUAL REPORT ON RECYCLABLES RECOVERED & UPDATED COMPREHENSIVE RECYCLING ANALYSIS

This report is submitted pursuant to:

- NYSDEC Permit Number 7-3142-00028/00011  
**Solid Waste Permit: Onondaga County Resource Recovery Facility**
- NYSDEC Permit Number 7 3156 00047/00001  
**Solid Waste Permit: OCRRA Landfill**
- NYSDEC Permit Number 7-3148-00048/00003  
**Solid Waste Permit: Ley Creek Transfer Station**

**Period reported:** January 1, 2023, through December 31, 2023  
**Date:** March 1, 2024  
**Planning Unit:** County of Onondaga including the City of Syracuse, excluding the Town and Village of Skaneateles  
**Contact Person:** Mr. Kevin Spillane, Executive Director, OCRRA  
100 Elwood Davis Road North Syracuse, NY 13212-4312

## 2023 Recycling Data

The Onondaga County Resource Recovery Agency (OCRRA) is a non-profit public benefit corporation created by the New York State Legislature, which delivers a comprehensive solid waste management and resource recovery system to Onondaga County residents. Since beginning operations in 1990, OCRRA has overseen the recycling of more than 12 million tons of material.

OCRRA inventories and records tonnages of all material recycled through the Agency's curbside program. **In 2023, 22,398 tons of materials were collected from households through the curbside recycling program.** The OCRRA service area has a population of approximately 461,170 people, with roughly 212,072 households. It should be noted that this tonnage assumes that all curbside recycling is managed through OCRRA's system, although curbside recycling is not flow controlled in Onondaga County.

In 2023, 492,810 tons of materials were recycled through mandatory and voluntary residential and commercial recycling programs in Onondaga County. Recycled material made up 56.87% of the total recycling and solid waste. (Table 1).

| <b>Table 1 - 2023 Recycling and Solid Waste Totals</b>    |                          |                |                         |
|---|--------------------------|----------------|-------------------------|
|   |                          | <b>Tons</b>    | <b>% of Total Waste</b> |
| <b>Recycling</b>  |                          |                |                         |
| Curbside Recycling (Primarily Residential)                |                          | 22,398         |                         |
| Commercial Recycling (Primarily Business) <sup>1</sup>    |                          | 470,413        |                         |
|   | <b>Total Recycling</b>   | <b>492,810</b> | <b>56.87%</b>           |
| <b>Solid Waste</b>  |                          |                |                         |
| OCRRA Municipal Solid Waste (MSW)                         |                          | 289,802        |                         |
| MSW Ferrous & Nonferrous Recycling <sup>2</sup>           |                          | -13,406        |                         |
| OCRRA Construction & Demolition Debris (C&D) <sup>2</sup> |                          | 63,728         |                         |
| Metal removed from Construction & Demolition Debris (C&D) |                          | -1,788         |                         |
| Other Waste <sup>3</sup>                                  |                          | 35,386         |                         |
|   | <b>Total Solid Waste</b> | <b>373,722</b> | <b>43.13%</b>           |
| <b>Total Recycling and Solid Waste</b>                    |                          | <b>868,533</b> |                         |

<sup>1</sup> Data is voluntarily reported to OCRRA by recycling companies, governmental organizations, retail, and commercial firms. Reported data have been adjusted to eliminate known double-counting. Data reporting is voluntary and is not audited by OCRRA. In cases when data is not reported voluntarily, OCRRA has gathered data from historical NYS Department of Environmental Conservation reporting.

<sup>2</sup>Ferrous, nonferrous, and other metals that are recovered from MSW at the Onondaga County Resource Recovery Facility and recycled are subtracted to avoid double counting.

<sup>3</sup>Includes biosolids currently being sent to a landfill.

Table 1 shows the total recycling and trash generation for 2023 in OCRRA’s service area, including the total solid waste percentages and the actual percentages / tonnages of recyclables removed from the waste stream. In addition to the mandatory recycling materials (see Table 4), this total also includes voluntary recycling materials such as batteries, food waste, electronic waste, hazardous waste, yard waste and construction debris.

NYSDEC Permit Number 7-3142-00028/00011 issued to OCRRA to operate the Onondaga County Resource Recovery Facility includes a recycling goal of at least 40% processible waste annually. The processible recycling rate, as defined by NYSDEC, considers only those materials recycled that could have otherwise been disposed of at the Onondaga County Resource Recovery Facility. For example, it does not include yard waste, which is an unacceptable waste at the Onondaga County Resource Recovery Facility. **The processible recycling rate in 2023 was**

**48.32%.** As such, OCRRA maintained the recycling goal of at least 40% processible waste, consistent with the NYSDEC Comprehensive Recycling Analysis (CRA) requirements.

OCRRA projected that in 2023, the tonnage of projected mandatory recycling material would be 200,000 tons in the NYSDEC approved 2016 Comprehensive Solid Waste Management Plan Update. In 2023, 258,451 actual tons of material were processible recycling. As compared to the projected recovery rates contained in the NYSDEC approved Comprehensive Solid Waste Management Plan, the original projected recovery rates have been met. The schedule progress for implementation status and targets were defined in OCRRA’s Comprehensive Solid Waste Management Plan Update for 2023.

Table 2 shows 2023 totals for processible recycling and municipal solid waste. Table 3 shows 2023 recycling totals by material type.

| <b>Table 2 - 2023 Processible Recycling and Municipal Solid Waste</b> |                |                         |
|---|----------------|-------------------------|
|   | <b>Tons</b>    | <b>% of Total Waste</b> |
| <b>Processible<sup>1</sup> Recycling</b>                              |                |                         |
| Curbside Recycling (Primarily Residential)                            | 22,398         |                         |
| Processible Commercial (Primarily Business) <sup>2</sup>              | 236,053        |                         |
| <b>Total Processible Recycling</b>                                    | <b>258,451</b> | <b>48.32%</b>           |
| <b>Municipal Solid Waste (MSW)</b>                                    |                |                         |
| Incoming Municipal Solid Waste  | 289,802        |                         |
| MSW Ferrous & Nonferrous Recycling <sup>3</sup>                       | -13,406        |                         |
| <b>Total MSW</b>  | <b>276,396</b> | <b>51.68%</b>           |
| <b>Total Processible Recycling and Solid Waste</b>                    | <b>534,847</b> |                         |

<sup>1</sup>Processible materials are those which could have been disposed of at the Waste-to-Energy Facility, including Non-Ferrous Metals, Ferrous Metals, Glass, Wood, Office Paper, Newspapers, Magazines, Corrugated Cardboard and Paperboard, Textiles, and Plastics.

<sup>2</sup> Data is voluntarily reported to OCRRA by recycling companies, governmental organizations, retail, and commercial firms. Reported data have been adjusted to eliminate known double-counting. Data reporting is voluntary and is not audited by OCRRA. In cases when data is not reported voluntarily, OCRRA has gathered data from historical NYS Department of Environmental Conservation reporting.

<sup>3</sup>When calculating recycling rates, ferrous and nonferrous metals recovered from MSW at the Onondaga County Resource Recovery Facility are subtracted to avoid double counting.

| <b>Table 3 - 2023 Recycling by Material<sup>1</sup></b> |                |                         |
|---|----------------|-------------------------|
| <b>Material Type</b>                                    | <b>Tons</b>    | <b>Percent of Total</b> |
| <i>Organic Wastes (excluding Paper)</i>                 |                |                         |
| Food  | 83,513         | 17%                     |
| Yard Waste  | 7,117          | 1%                      |
| Wood  | 5,559          | 1%                      |
| Textiles  | 7,194          | 1%                      |
| <b>Total Organic Wastes</b>                             | <b>103,384</b> | <b>21%</b>              |
| <i>Plastics</i>   |                |                         |
|   | <b>6,784</b>   | <b>1%</b>               |
| <i>Metal</i>  |                |                         |
| Non-Ferrous Metals                                      | 17,724         | 4%                      |
| Ferrous Metals  | 88,485         | 18%                     |
| Other Metals  | 1,788          | 0%                      |
| <b>Total Metal</b>                                      | <b>107,997</b> | <b>22%</b>              |
| <i>Paper</i>  |                |                         |
| Corrugated Cardboard & Paperboard                       | 107,704        | 22%                     |
| Office Paper, Newspapers and Magazines                  | 16,259         | 3%                      |
| Books   | 594            | 0%                      |
| <b>Total Paper</b>                                      | <b>124,557</b> | <b>25%</b>              |
| <i>Other</i>  |                |                         |
| Glass   | 3,084          | 1%                      |
| Hazardous Wastes  | 98             | 0%                      |
| Electronics/Computers                                   | 2,070          | 0%                      |
| Batteries   | 6,277          | 1%                      |
| Sludge/Waste Water                                      | 9,572          | 2%                      |
| Miscellaneous   | 128,989        | 26%                     |
| <b>Total Other</b>                                      | <b>150,089</b> | <b>30%</b>              |
| <b>Total Material Recycled<sup>2</sup></b>              | <b>492,810</b> | <b>100%</b>             |

<sup>1</sup>Data is voluntarily reported to OCRRA by recycling companies, governmental organizations, retail, and commercial firms. Reported data have been adjusted to eliminate known double-counting. Data reporting is voluntary and is not audited by OCRRA. In cases when data is not reported voluntarily, OCRRA has gathered data from historical NYS Department of Environmental Conservation reporting.

<sup>2</sup>Total Material Recycled does not include curbside recycling residue resulting from processing at the material recovery facility from residential curbside collection.

## Required Recycling

The original Onondaga County Source Separation Law, which mandated recycling of certain materials by all waste generators, was passed by the County Legislature in 1989. The law was updated in 2011. Table 4 lists mandatory recyclables.

| <b>Table 4 - OCRRA Mandated Recyclables</b>   |
|---|
| <ul style="list-style-type: none"><li>• Office Paper and Discarded Mail</li><li>• Newspapers and Magazines</li><li>• Corrugated Cardboard, Brown Paper Bags, Paperboard, Pizza Boxes</li><li>• Milk and Juice Cartons, Gable-Top Cartons, Aseptic Cartons</li><li>• Glass Food and Beverage Containers</li><li>• Metal Food and Beverage Containers</li><li>• Aluminum Foil</li><li>• Aerosol Cans</li><li>• #1 and #2 Plastic Bottles</li><li>• #5 Plastic Dairy Containers</li><li>• Soft Cover Books</li></ul> |

## Markets and Material Recovery

### *MRF Contract*

For nearly 30 years, OCRRA has contracted with a local material recovery facility (MRF) that is owned and operated by WM-Recycle America (WM-RA). WM-RA is responsible for sorting, baling, and marketing the curbside residential recycling material collected by private haulers, municipal haulers, and municipalities with private hauling contracts. There is no contract arrangement between OCRRA and WM-RA for commercial materials generated in Onondaga County, only for residential materials. The contract states that OCRRA pays a fee to WM-RA (currently \$84.59) to perform the sorting, baling, marketing and transport of the recycled materials and shares in revenues from sold materials (if any). Depending on market conditions, the contract results in either a cost to or revenue to OCRRA. Haulers may bring commercial recycling materials to WM-RA, but they must make arrangements through WM-RA separately.

### *Recycling Markets*

In 2022, commodity values dramatically decreased, and the year ended with four months of negative commodity values of mixed paper. In 2022, OCRRA paid a net total of \$717,693 to WM-RA. In 2023, commodity values of mixed paper increased steadily throughout the year, starting the year at \$0/ton, and ending at \$40/ton. OCC saw a slight increase in commodity

value, while Natural High-Density Polyethylene, Rigid Plastics, and Polyurethane decreased in commodity value.

In 2023, 3,175 tons of food and beverage glass were collected from curbside recycling for processing at WM-RA facility. This glass is broken during collection, transport, and processing. During processing it is also mixed with small pieces of residue, which renders it too dirty to be turned into new glass bottles. In 2023, OCRRA paid \$27.62 per ton to manage glass, more than \$87,600 for the year in total. For decades, this glass was utilized as Alternative Operating Cover (AOC) at area landfills.

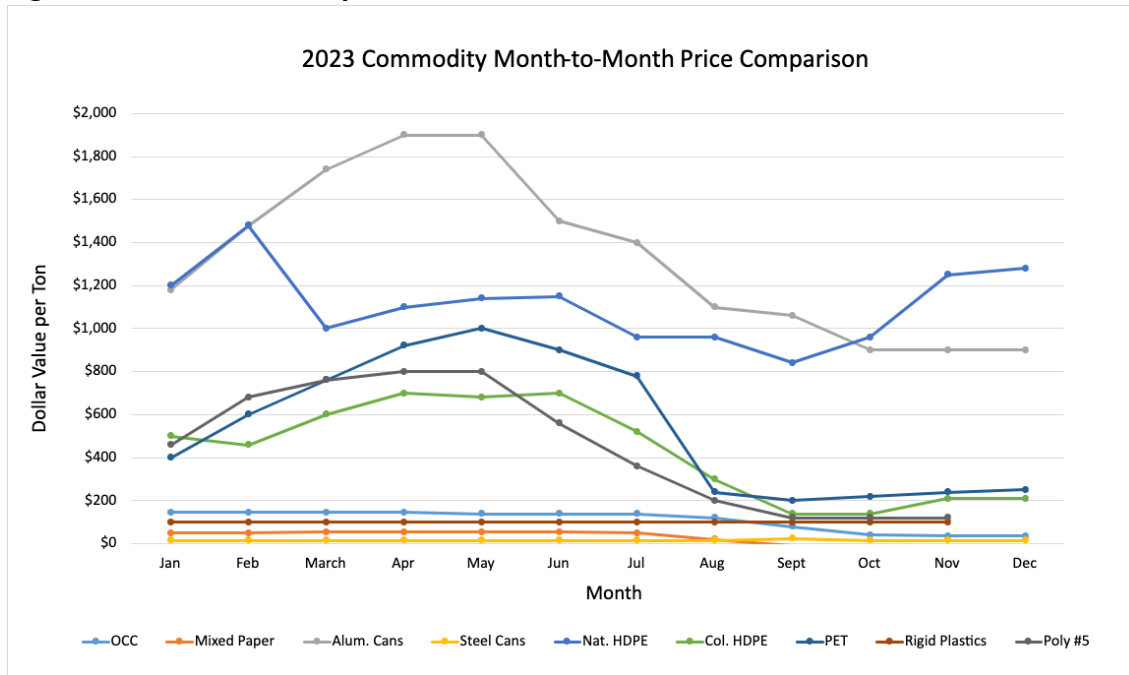
At times the contamination of the glass causes the onsite DEC monitor at High Acres Landfill to determine that it is not suitable to be used as Alternative Operating Cover (AOC). Increasing frequency of these conditions has caused the Agency to remove curbside glass residue from its calculation of recycled materials. This management of glass is at odds with our public messaging and the goals of the NYSDEC's 2023 State Solid Waste Management Plan, as items that we instruct residents to place in their recycle bins, for purposes of recycling, are being landfill as trash.

The rise and fall of the market price of recyclable material affects the average blended value (ABV) of curbside recycling commodities. The ABV is based on the value of each commodity material type at a percentage that is representative of the material's weight. During 2023, the monthly ABV did not exceed \$84.59, meaning OCRRA paid the WM-RA to process recyclables per the OCRRA / WM-RA Contract. In 2023, OCRRA paid a net total of approximately \$1,547,000 to WM-RA to support curbside residential recycling.

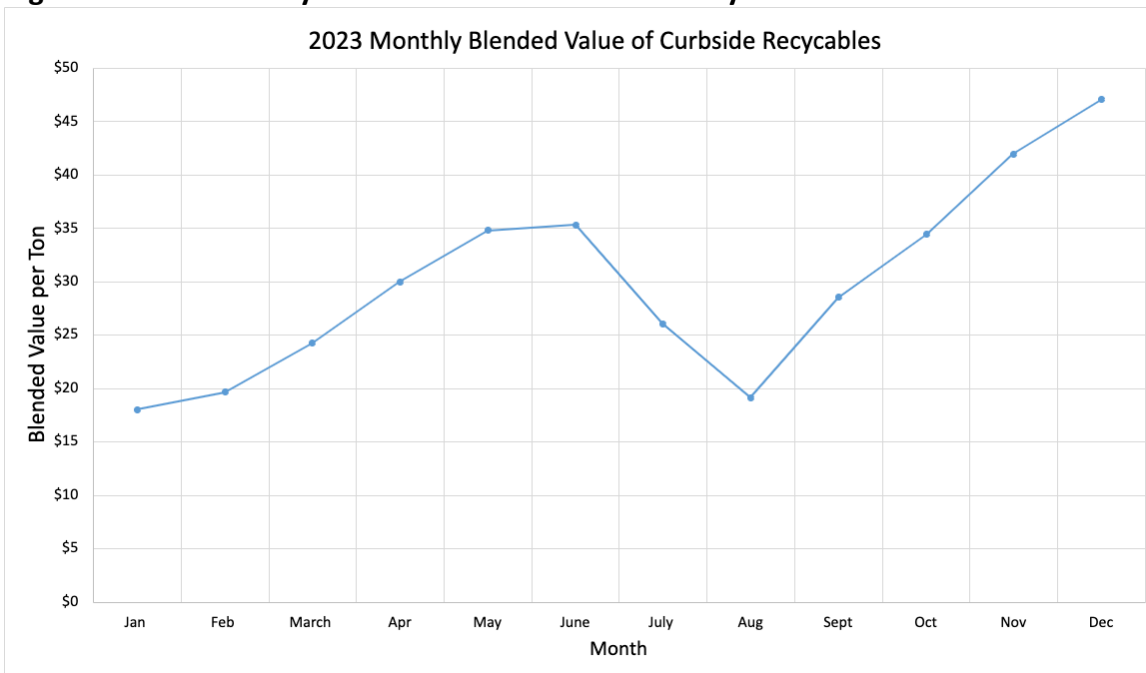
Figure 1 shows commodity prices for materials processed at WM-RA in 2023 by month. Figure 2 shows the monthly ABV of curbside recyclables processed at WM-RA in 2023. Figure 3 shows the yearly ABV of curbside recyclables processed at WM-RA from 2013 to 2023.

***Graphs Continue on Next Page***

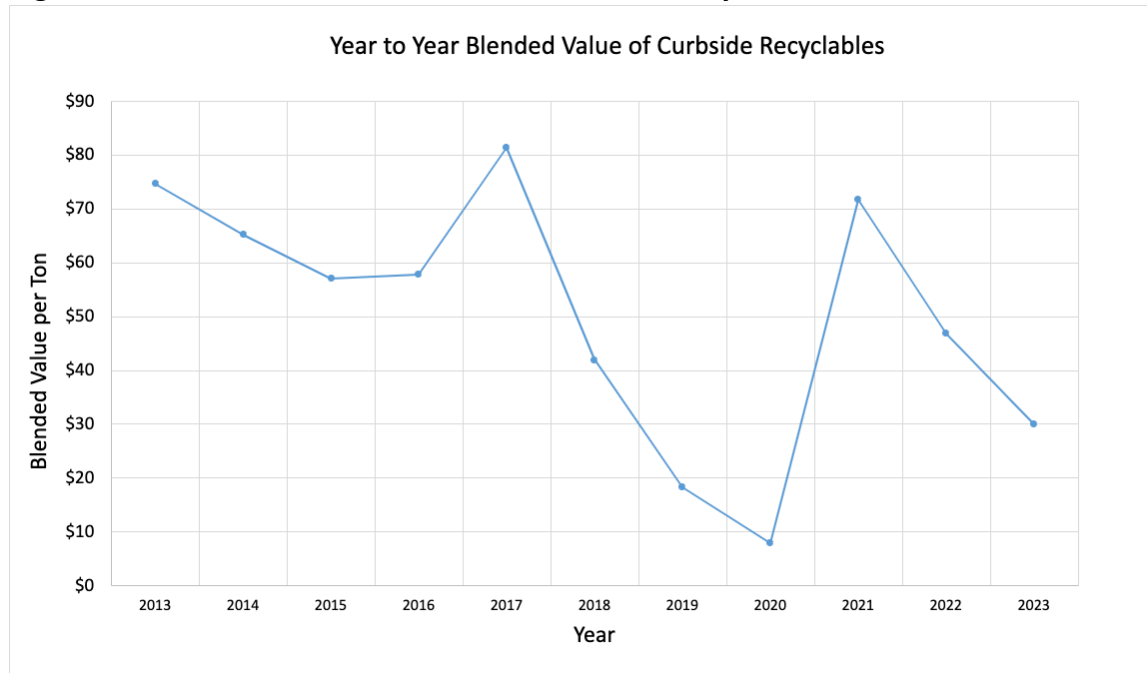
**Figure 1. 2023 Commodity Prices Month-to-Month**



**Figure 2. 2023 Monthly Blended Value of Curbside Recyclables**



**Figure 3. Year- to-Year Blended Value of Curbside Recyclables**



## 2023 Recycling Program

OCRRA provides residents of Onondaga County a strong recycling and composting program; a foundation for waste disposal at the local Onondaga County Resource Recovery Facility; a robust public outreach and education service; and award-winning programs for disposing of hard to manage materials. OCRRA’s work is not funded by taxes. Tipping fees charged to haulers for disposing of solid waste at our transfer station and Onondaga County Resource Recovery Facility and revenue from electricity generated by the Onondaga County Resource Recovery Facility provide the funds to operate OCRRA’s Recycling Program.

OCRRA’s recycling department is responsible for educating the public about mandatory recycling rules and providing technical assistance to residents, schools, and businesses in Onondaga County. In 2023, OCRRA demonstrated that aggressive steps are being taken to maximize the recycling of all waste streams, including continued reduction through maximum feasible recycling. In 2023, OCRRA engaged over 50 classrooms, community organizations and tabling events, educating over 3,330 community members on recycling, reduction, and reuse.

OCRRA’s enforcement officer augments the educational efforts of the team’s recycling specialists. The enforcement officer visits businesses and apartment complexes to confirm compliance with local recycling laws. They also inspect loads of solid waste at Onondaga County Resource Recovery Facility and OCRRA’s transfer station and issue warnings and/or notices of violations for loads that contain recycling. The enforcement officer and recycling specialists work together to assist waste generators in designing a recycling program that will capture the mandated recyclables. Direct program costs for 2023 recycling services are found in Table 5.



| <b>Table 5 - 2023 Recycling Program Costs</b> |                    |
|---|--------------------|
| <b>Program</b>                                | <b>Expenses</b>    |
| Recycling Personnel <sup>1</sup>              | \$846,708          |
| Material Recovery Facility (MRF) Fees         | \$1,546,997        |
| Public Education                              | \$411,589          |
| Composting <sup>2</sup>                       | \$491,024          |
| Household Hazardous Waste (HHW) Collection    | \$163,515          |
| Blue Bin Expense                              | \$68,292           |
| Other Recycling Programs <sup>3</sup>         | \$157,485          |
| <b>Total Cost</b>                             | <b>\$3,685,610</b> |

<sup>1</sup>Includes all permanent compost personnel.

<sup>2</sup>Includes all temporary compost personnel.

<sup>3</sup>Includes equipment maintenance, hauling and disposal expenses, postage, memberships, and misc. expenses.

### *2023 Efforts to Improve Recycling Rate*

In 2023, OCRRA’s award-winning recycling programs delivered environmental solutions, excellent public education, and quality disposal and recycling services to the residents of Onondaga County. Examples of measures taken to improve recycling include:

- More than 3,675 tons of food scraps and food process waste were composted at OCRRA’s state-of-the-art compost site. Food scraps were combined with yard waste to generate finished compost. Resident and commercial customers purchased more than 12,089 cubic yards of compost at OCRRA’s Amboy Compost Site and 3,735 cubic yards at Jamesville Compost Site, adding the valuable soil amendment back into the community’s soils.
- More than 170 tons of recycling was collected at OCRRA’s Transfer Stations from residents without curbside recycling collection.
- 1,787 tons of metal were separated and recycled at OCRRA’s locations. In addition, 13,406 tons of metal were separated and recycled at OCRRA’s Onondaga County Resource Recovery Facility.
- 6,036 pounds of rechargeable batteries, 71 tons of alkaline batteries, and about a ton of button and coin batteries were recycled in 2023 through partnerships with Call2Recycle and National Lamp Recycling. OCRRA’s battery recycling program provides residents

with 13 convenient drop off locations to dispose of rechargeable, alkaline, and button batteries free of cost.

- More than 11,045 fluorescent bulbs were sent to American Lamp Recycling through OCRRA's bulb recycling program, keeping over 38,706 milligrams of mercury out of the environment and waste stream. OCRRA partners with local hardware stores to provide residents convenient locations to drop off old fluorescent bulbs for free recycling.
- More 10,300 bags of OCRRA's premium 1/4-inch compost were sold through a network of 30+ lawn and garden retail outlets, helping to return valuable nutrients to local soils.
- More than 1,510 residents took advantage of OCRRA's free Household Hazardous Waste program in concert with Miller Environmental Group.
- 114 residents of Onondaga County attended OCRRA and Covanta's Mercury Collection Event in September. 158 mercury thermometers and 78 mercury thermostats were collected, diverting 470,000 milligrams of mercury from the waste stream.
- 4,652 volunteers from 297 groups participated in OCRRA's annual Earth Day Litter Cleanup. 107,380 pounds of litter were collected from neighborhoods across Onondaga County.
- OCRRA advocated for expansion of the New York State Bottle Bill and supported Extended Producer Responsibility for various products, by serving on committees of the New York Product Stewardship Council and New York State Association for Reduction, Reuse and Recycling. OCRRA's Director of Recycling also testified before the NYS Senate and Assembly Standing Committees on Environmental Conservation on the need for extended producer responsibility for paper and packaging.
- OCRRA employees shared their expertise by presenting at various industry conferences in 2023, including the annual Federation of New York Solid Waste Conference, New York State Organic Summit, and the annual New York State Association for Reduction, Reuse, Recycling Conference.