

Onondaga County Resource Recovery Agency



2018 ANNUAL REPORT ON RECYCLABLES RECOVERED

This report is submitted pursuant to:

NYSDEC Permit Number 7-3142-00028/00002-0 Certificate to Operate Onondaga County Resource Recovery Facility;

NYSDEC Permit Number 7-3156-00047/00001-0 Permit to Construct and Operate the OCRRA Landfill;

NYSDEC Permit Number 7-3148-00048/00001-0 Solid Waste Transfer Station-Ley Creek; and

NYSDEC Permit Number 7-3142-00036/00001-0 Solid Waste Transfer Station-Rock Cut Road.

Period reported: January 1, 2018 through December 31, 2018

Date: March 1, 2019

Planning Unit: **County of Onondaga** including the City of Syracuse, excluding the Town and Village of Skaneateles

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1. 2018 Recycling Data

OCRRA (Onondaga County Resource Recovery Agency) is a non-profit public benefit corporation charged with managing solid waste in Onondaga County (with the exception of the Town and Village of Skaneateles). This includes proper disposal of Municipal Solid Waste (MSW) and recycling. Since beginning operations in 1990, OCRRA has overseen the recycling of 12 million+ tons of material.

In 2018, **39,096 tons** of materials were collected from households through the blue bin curbside recycling program; there are approximately 180,000 households in the OCRRA Service Area, and a population of approximately 468,000.

In 2018, **492,000 tons** were recycled through mandatory and voluntary recycling efforts (both residential and commercial) in the community, for a **total recycling rate of 56%** (see Table 1). OCRRA also met permitting requirements for the Waste-to-Energy facility set forth by the NYSDEC to maintain a 40% processible recycling rate¹, by reaching 42%, or 191,973 tons (see Table 2).



OCRRA inventories and records recycling tonnages of all material recycled through the curbside program. Data collected from private commercial entities, as well as public and private institutions, are provided on a voluntary basis and are not audited by OCRRA.

Table 1 shows the total recycling and trash generation for 2018 in OCRRA's service area. In addition to the "mandatory recycling materials," meaning items that could be otherwise processed at the WTE Facility such as old corrugated cardboard (OCC), old newspaper pulp (ONP), containers, paper, etc., this total also includes the "voluntary recycling materials," meaning items that could not otherwise be processed at the WTE Facility such as yard waste, sludge, construction debris, etc. It is interesting to note

¹ The processible recycling rate, as defined by NYSDEC, considers only those materials recycled that could have otherwise been disposed of at the Waste-to-Energy facility. For example, it does not include yard waste, which is an unacceptable waste at the Waste-to-Energy facility.

in this table, that if the biosolids that are currently included in the solid waste calculation were to be removed, (as they are not technically considered “solid waste”), then the overall community recycling rate would jump to **59%**.

Table 2 shows totals for only the “mandatory recycling materials,” mentioned above. In Table 3, a breakdown of tonnage by material is displayed, and finally, Table 4 shows greenhouse gas emission equivalents that were avoided by recycling in Onondaga County in 2018.

Table 1 - 2018 Total Mandatory and Voluntary Recycling and Municipal Solid Waste		
Recycling	Tons	Percent of Total Waste
Curbside Recycling (Primarily Residential)	39,096	
Commercial Recycling (Primarily Business)	452,904	
Total Recycling	492,000	56%
Solid Waste		
OCRRA Municipal Solid Waste (MSW)	288,131	
Less MSW Ferrous & Nonferrous Recycling ¹	-12,412	
OCRRA Construction & Demolition Debris (C&D)	70,066	
Other Waste ²	42,103	
Total Solid Waste	387,888	42%
Total Voluntary Recycling and Solid Waste: 879,888		

¹Ferrous and nonferrous metals that are recovered from MSW at the Waste-to-Energy Facility and recycled are subtracted to avoid double counting.

²Includes biosolids currently being sent to a landfill.

Table 2 - 2018 Total Mandatory Recycling and Solid Waste¹		
Processible² Recycling	Tons	Percent
Curbside Recycling (Primarily Residential)	39,096	
Processible Commercial (Primarily Business)	152,878	
Total Processible Recycling	191,973	42%
Municipal Solid Waste (MSW)		
OCRRA Municipal Solid Waste	288,131	
Less MSW Ferrous & Nonferrous Recycling ³	-12,412	
Total MSW	275,719	58%
Total Mandatory Recycling and Solid Waste: 467,692		

¹Sources for these data include: recycling companies, retail and commercial firms, and governmental organizations which voluntarily report to OCRRA. Reported data have been adjusted to eliminate known double-counting. For example: If Generator A ships 500 tons of scrap metal to Recycler B and both organizations report 500 tons to OCRRA; OCRRA credits the system-wide total with 500, not 1,000 tons.

²Processible materials are those which could have been disposed of at the Waste-to-Energy Facility.

Table 7 - 2018 Recycling By Material		
MATERIAL	TONS¹	PERCENT OF TOTAL²
Organic Wastes (excluding Paper)		
Food	106,967	22%
Yard Waste	20,777	4%
Wood	3,929	1%
Textiles	1,406	0%
Total Organic	133,078	27%
Plastics		
	8,259	2%
Metal		
Ferrous Metals, except MSW Ferrous	89,188	18%
MSW Ferrous and MSW Non Ferrous	12,412	3%
Non Ferrous Metals, except Aluminum and MSW Non Ferrous	15,797	3%
Aluminum	1,622	0%
Total Metal	119,018	24%
Paper		
Corrugated Cardboard	70,209	14%
Newspapers and Magazines	20,712	4%
Office / Mixed Paper	38,258	8%
Books	679	0%
Total Paper	129,858	26%
Sludge		
	62,912	13%
Other		
Glass	6,876	1%
Special and Hazardous Wastes	306	0%
Electronics and Batteries	4,651	1%
Appliances	224	0%
Miscellaneous	25,778	5%
Total Other	37,835	7%
TOTAL	490,960	99%

¹Data reporting is voluntary and is not audited by OCRRA. Many businesses consider the tonnage and disposal of their special process wastes (the category “Special and Hazardous Wastes”), whether or not they are “hazardous”, to be proprietary information. Therefore, the data concerning the recapture and recycling of waste, particularly in this category, may be underreported.

²Data may not equal 100% due to rounding.

Greenhouse Gas Avoidance

Recycling has many environmental benefits, including resource and energy savings due to avoidance of using virgin materials. The USEPA provides its WARM Model to allow users to determine the amount of greenhouse gases (GHGs) saved due to recycling or composting. In the table below, the GHG emissions avoided for materials recycled in Onondaga County in 2018 has been calculated. In 2018, Onondaga County's recycling program saved **764,580 metric tons of carbon dioxide equivalents (MTCO₂E)** from being emitted². This is equivalent to **taking about 162,331 passenger vehicles off the road.**

Table 4 – 2018 Greenhouse Gas Emissions Avoidance

Material¹	Recycling / Composting Emission Factors² (MTCO₂E per short ton)	Combustion Emission Factors² (MTCO₂E per short ton)	Difference	Tons Recycled/ Composted	GHG Emissions Mitigated (MTCO₂E)
Food	(0.18)	(0.14)	-0.04	106,967	-4,279
Yard Waste	(0.18)	(0.14)	-0.04	20,777	-831
Wood	(2.46)	(0.61)	-1.85	3,929	-7,268
Mixed Plastics	(1.02)	(1.22)	0.20	8,259	1,652
Mixed Metals ³	(4.34)	(1.02)	-3.32	119,242	-395,884
Corrugated Box	(3.12)	(0.51)	-2.61	70,209	-183,246
Newspaper and Magazines	(2.75)	(0.58)	-2.17	20,712	-44,946
Mixed Paper - Office	(3.53)	(0.51)	-3.02	38,258	-115,538
Books ⁴	(3.11)	(0.49)	-2.62	679	-1,779
Glass	(0.28)	(0.03)	-0.25	6,876	-1,719
Electronics/Batteries ⁵	(2.50)	(0.19)	-2.31	4,651	-10,744
TOTAL GHGs Mitigated					-764,580

¹Some materials recycled were not included in this analysis due to a lack of equivalent emission factors: Sludge, Special and Hazardous Waste, Textiles, etc.

²GHG avoidance factors are taken from the USEPA's WARM Model, Version 14.0, updated March 2016: <http://epa.gov/warm>. Factors are based on recycling / composting vs. combustion.

³Mixed Metals include: Ferrous Metals, MSW Ferrous, Non Ferrous Metals, MSW Non Ferrous, Aluminum, and Appliances.

⁴Emission factor for textbooks was used for books.

⁵Emission factor for personal computers was used for electronics/batteries.

² Calculated using USEPA's Greenhouse Gas Equivalencies Calculator at <http://www.epa.gov/energy/greenhouse-gas-equivalencies-calculator>.

Required Recycling

Onondaga County’s local “Source Separation” (i.e. Recycling) Law was updated in 2011, and went into effect January 1, 2012. The original Source Separation Law, which mandated recycling of certain materials by all waste generators, was passed by the County Legislature in 1989.

The 2011 update:

- Clarifies requirements by simplifying language and spelling out specifics for businesses
- Requires haulers to provide recycling service to their customers
- Reinforces multi-tenant housing unit recycling requirements
- Requires that labeled recycling containers must be as easily accessible as trash cans

Below is a list of mandatory recyclables.

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

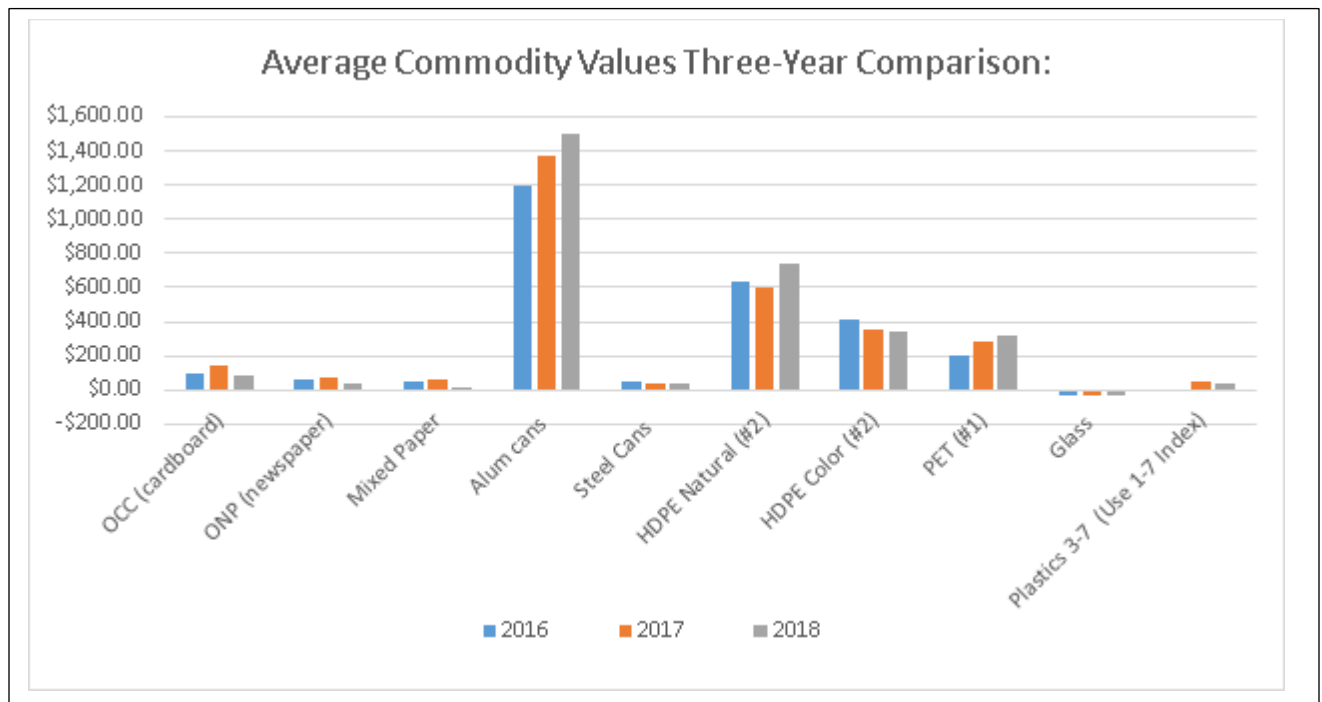
2. Markets, Trends and Material Recovery Facilities (MRF’s)

China’s National Sword Guts Recycling Markets

For more than a decade, China served as the largest market for much of the world’s recyclables. In early 2018, Beijing roiled the global recycling markets by banning the import of 24 different kinds of solid waste, including most kinds of plastics and mixed paper, as part of its “National Sword” campaign. Speculation varies as to why China suddenly decided to rethink its solid waste imports. Some say Beijing hopes to tap its own growing consumer base as the foundation of its recycled materials industry. That could still be a long way off, though. As China’s WTO filing noted, part of it seemed to be that the country is simply trying to clean up its own environment.

China’s National Sword policy sent material commodity markets into free-fall. In example, mixed paper, which comprises 50% of curbside recycling materials by weight, lost 90% of its value. With a glut of recyclables flooding the market, the cost of processing curbside recyclables was no longer offset by commodity prices in Onondaga County and beyond. In the wake of these market challenges, OCRRA paid the private sector local MRF \$674,000 in 2018 to sort and market the system’s curbside recycling stream; a cost averaging \$17/ton. The stellar quality of Onondaga County’s recycling stream ensured our curbside recyclable continued to be recycled. OCRRA’s Board of Directors remain committed to recycling and in October 2018 approved increased tip fees in 2019 to ensure Onondaga County’s recyclables continue to be sorted, baled and marketed to become useful products again.

Recyclable materials have value and markets will recover. Additionally, disposal capacity does not exist to trash these items. OCRRA is working with our peers and the NYSDEC to further reduce contamination in the recycle bin such that our materials garner top dollar.



MRF Contract

Blue bin recyclables are collected curbside by private haulers, municipal haulers and municipalities with private hauling contracts. The recyclables are taken for processing and marketing to a material recovery facility (MRF).

In 2010, OCRRA’s five-year contract agreement with private local MRFs was set to expire. A new four-year contract was negotiated and began in 2011; a one year optional extension was signed for 2015. In 2015 the contract was renegotiated, amended and extended for 2 more years (2016 & 2017), with optional extensions for 2018 & 2019.

In mid-2018, Waste Management/Recycle America gave the Agency notice that it intended to cancel its contract with OCRRA, effective October 31, for processing curbside residential recyclables as a result of the global commodity price crash noted above. The Agency and the MRF subsequently negotiated a new contract covering November and December 2018 and January through December 2019. This contract capped OCRRA’s annual risk in connection with payments to the MRFs for material processing, potentially generates income for OCRRA if favorable market conditions return, and provides certainty and stability for the community’s recycling system during commodity market lows. As a result of this contract, OCRRA provides financial support, depending on market commodity prices, to the MRFs to ensure the MRFs accept residential recyclables at no charge to the waste haulers.

The MRF contract is a valuable tool, which allows OCRRA to formulate and maintain a uniform definition of “blue bin” recyclables for the community. This uniformity helps facilitate the successful education and enthusiastic cooperation of the public.

Under the contract with the MRF, apart from a so-called “public education fee” that the MRF pays OCRRA, other payments are made from the MRF to OCRRA, or from OCRRA to the MRF, depending on the market prices of recycling commodities and agreed upon composition of blue bin commodities. Those commodities are cardboard, newspaper, mixed paper, aluminum cans, steel cans, natural and colored HDPE, PET, glass, and residue; the so-called weighted per ton revenue (WPTR) for curbside recyclables was comprised as follows in 2018:

	Composition%
OCC (Corrugated Cardboard)	22%
ONP (Newspapers)	51%
Mixed Paper	0.2%
Alum cans	0.03%
Steel Cans	2.40%
HDPE Natural	0.6%
HDPE Color	2.0%
PET	1.3%
Glass	17%
Residue	3%

TABLE 6 – TOTAL MRF PAYMENTS	
2006	\$62,504
2007	(\$64,993)
2008	(\$58,251)
2009	\$158,106
2010	(\$37,256)
2011	(\$78,251)
2012	\$36,006
2013	0
2014	(\$2,943)
2015	\$73,727
2016	\$256,648.71
2017	\$123,373.86
2018	\$667,920.00

Emerging Trends

There are multiple factors that can contribute to a reduction or an increase in recycling rates, including the following:

- The **decrease in newspaper and magazine** use due to continued growth of online news options, resulting in fewer subscriptions and therefore fewer papers printed.³ Not only is the amount of papers printed decreasing, but so is the actual size of newspapers. There are less pages printed due to less advertising (because of a loss in readership), as well as a drop in classified pages as more people use online sites to sell items, services or search for jobs. This trend came to fruition locally when The Syracuse Post-Standard reduced the printing of the daily newspaper to three days a week effective February 2, 2013. Also in spring 2013, the Scotsman weekly PennySaver ceased production.
- “**Thinwalling**”, also a global trend, is where the materials used to create certain packaging, such as plastic water bottles, aluminum cans, and fiber packaging, are thinner and therefore weigh less. On an aggregated basis, the “loss” in material is significant.
- In the future, the trend of **smaller electronic products** could result in less recycling tonnage; a smart phone combines the functions of a telephone, video camera, still camera, watch, music player and more. This reduces the number of products in our homes and subsequently in the waste stream.⁴

³ deThomas, D. The Shape of MRFs to Come. Resource Recycling, Dec 2011.

⁴ <http://waste360.com/blog/circular-file-less-less>

- **Plastic bags are being banned** far and wide, 13 towns and villages have banned bags in New York State so far.⁵
- Renewed interest in **Extended Producer Responsibility** for product packaging as a long term strategy to buffer local municipalities from the volatility of global commodity markets by requiring manufacturers to assume responsibility for recovering and recycling the product packaging they introduce into the market place, and promoting upstream, engineered solutions to material recovery.
- **Zero Waste:** Many towns/villages/cities are ascribing to zero waste goals. This means that there is a conscious effort to reduce waste, reuse more and recycle just about everything leftover.
- **Organics Bans:** Some states have implemented mandatory food waste composting and banned all organics from landfills.⁶
- The use of **carts for trash and recycling** is a trend nationally and a few haulers in Onondaga County have chosen to embrace it as well. The use of carts could increase recycling and reduce litter.

Some of these trends result in less material generation. So, while there may be a significant net decrease in the available material for recycling, these trends do represent an overall environmental benefit due to waste reduction.

3. 2017 Recycling Program Costs

OCRRA manages the solid waste and recycling program for 33 municipalities in Onondaga County. Each municipality is unique in its solid waste collection. Some provide waste and recyclables collection through their own public employees, some contract with private waste hauling firms to provide services for their residents, and still others require residents to arrange for disposal and recycling by contracting with a private hauler or bringing their MSW and recyclables to one of the two OCRRA transfer stations.

OCRRA is not funded by taxes. The trash tipping fee revenue and energy revenue provide the bulk of the financing for recycling program components essential to achieving the mandated recycling rate. OCRRA applies for grants through competitive applications as well. Program costs include OCRRA's comprehensive public education program which consists of radio, TV, web and print media campaigns; on-site visits to businesses by a staff of recycling professionals offering technical assistance; classroom presentations on recycling and environmental stewardship; and numerous brochures and educational materials. More than \$263,000 in state grants were received in 2018, in connection with reimbursement of Household Hazardous Waste collection expenses, compost equipment, and curbside blue bin purchases. Several new grant applications were submitted to NYSDEC and are currently pending.

OCRRA's recycling program covers costs necessary to assure waste haulers a zero tip fee at the Material Recovery Facilities (MRFs) for residential recyclables during poor commodity market conditions. OCRRA also manages two transfer stations that allow for the drop-off of blue bin recyclables at no cost. The transfer stations are also drop-off points for additional materials such as scrap metal, small appliances, mercury thermostats, mercury thermometers, and household batteries.

⁵ <http://www.citizenscampaign.org/campaigns/plastic-bags.asp>

⁶ <http://compostingcouncil.org/landfill-bans-on-organics/>

During 2018, OCRRA’s Recycling Program managed:

- ❁ Two yard waste compost sites, open to the public year round.
- ❁ A commercial and institutional food waste composting program at the Amboy Compost Site (open year-round);
- ❁ A year-round Monday-Friday Household Hazardous Waste (HHW) collection program;
- ❁ A “Shred-O-Rama” event, in which mobile shredding trucks shredded household confidential papers on-site;
- ❁ A textile recycling event, in which textile items were collected from the community and recycled with the Rescue Mission and the Salvation Army.
- ❁ Year-long household battery collection at local drop-off points and a curbside collection in July;
- ❁ A mercury thermometer and thermostat exchange program; and
- ❁ Special services and programs for businesses, schools and apartment building managers and owners.

Direct program costs in 2018 (unaudited) associated with the recycling services are as follows:

Table 7 –RECYCLING COSTS		
PROGRAM	2017 EXPENSE	2018 EXPENSE
Recycling Personnel *	\$857,226	\$656,929
Material Recovery Facility (MRF) Fees	\$21,007	\$667,920
Public Education - Outside Service	\$367,301	\$281,911
Composting	\$293,386	\$256,507
Household Hazardous Waste (HHW) Collection	\$115,465	\$97,387
Blue Bin Expense	\$118,537	\$124,832
Other Recycling Programs	\$119,195	\$159,227
Total Cost	\$1,892,117	\$2,244,713

*Includes all permanent compost personnel.

4. Public Education, Program Outreach and Enforcement

OCRRA continues to invest in a high-profile effort to ensure that residents, businesses and institutions understand and follow the local law mandating source separation of recycling.

Recycling Team

OCRRA employs a professional recycling team engaged in spreading the recycling message and bringing technical assistance to residents, schools and businesses in Onondaga County. In 2018, the Recycling Specialists visited hundreds of local businesses, apartment complexes and schools to offer assistance in designing effective recycling programs as well as to offer free recycling containers and decals.

When needed, OCRRA Enforcement Officers supplement the efforts of the Recycling Specialists. An enforcement officer calls on businesses and apartment buildings when it is determined that other approaches have not resulted in compliance. Each enforcement officer spends a significant portion of the week inspecting loads of solid waste at OCRRA’s Waste-to-Energy facility to ensure that those containing recyclables are issued warnings and/or notice of violations. Recycling



Specialists visit waste generators that may be in violation to determine the source of the problem and assist in designing a recycling program which will capture the mandated recyclables, before any fines are sought.

OCRRA Communications

The Onondaga County community maintains an excellent recycling rate. However, frequent and consistent communication from OCRRA is necessary to remind current residents of what is recyclable, to



alert those who recently moved to the area of the recycling rules and to inform the public of special collection events.

To keep the public abreast of the recycling program, OCRRA continued its extensive public communication program throughout 2018, investing resources into direct public education through TV, web and print media. OCRRA’s public message promotes the “why” of recycling

and the difference one person can make in preserving natural resources for future generations. This campaign, launched in 2009, was based on community surveys which asked what messages would resonate. It uses the slogan “Save the World a Little Each Day,” demonstrating that the simple act of recycling can help the environment in a meaningful way. This campaign also emphasizes the OCRRA website as a community resource. For examples of the ad campaign, please visit: <https://ocrra.org/news-and-events/media/ad-campaign>.

In the summer of 2016, the Agency launched a revamped website, (www.OCRRA.org), providing enhanced search features to allow users to quickly find recycling options for their unwanted items, along with waste reduction and reuse tips for those items, when appropriate. It also allows users to make online reservations for household hazardous waste drop off, and purchase both compost passes and trash disposal stickers online. Additionally, it houses a recycling supply order form, which allows businesses, schools and apartment buildings to order free recycling containers and decals with a few simple clicks (see: <https://ocrra.org/order-supplies/>).



In addition to paid media advertising, OCRRA continues to publish its quarterly newsletter (see: <https://ocrra.org/about-us/newsletter/>) which contains articles written by OCRRA staff that highlight special recycling events, stand-out businesses and schools as models of excellence, and inform the public about specific recyclable materials. OCRRA distributed the newsletter as an insert in the Onondaga County Eagle Newspapers and in the Sunday Post-Standard. The newsletter also reaches the public through Onondaga County libraries, government offices (villages and town clerks) and

special events. In total, more than 100,000 households receive the newsletter on a quarterly basis.

One of OCRRA’s most effective means of communication is email. Through a web-based system, emails covering various recycling topics and upcoming events are regularly sent to nearly 8,000 people. In addition to this primary contact list, OCRRA has the ability to create smaller sub-lists and send emails to select groups of people (such as compost site users or school teachers). Email blasts are an inexpensive and effective way of reaching thousands of people and are growing in popularity as the email address list grows each year.

OCRRA also continued its social media presence with its [Facebook page](#), and a [YouTube channel](#) in 2018, allowing people to actively engage in discussion about recycling and OCRRA services. New information about upcoming events and highlights of local recycling and waste reduction achievements are posted on a regular basis. Additionally, the community is able to learn about operations through a series of videos highlighting the Compost Site, Transfer Station, Waste-to-Energy Facility, and the privately-owned Materials Recovery Facility (MRF).

Lastly, OCRRA provides numerous posters, brochures and decals at no charge to businesses, residents and institutions. These items act as prompts to remind people to recycle, as well as to inform them of the correct rules.

Apartment Recycling

Onondaga County has hundreds of multi-unit apartment buildings, which present a unique set of challenges to recycling, such as space constraints and inconvenient recycling bin locations. To assist residents in 2018, OCRRA Recycling Specialists visited dozens of apartment complexes (over 245+ total apartments) and spoke with numerous landlords and property managers to ensure that proper recycling occurred. To help facilitate a great recycling system, OCRRA provided brochures, magnets, decals and special containers, as well as presentations at group meetings.

Business Recycling

OCRRA's Recycling Specialists regularly call on businesses in Onondaga County to help them design effective collection systems for recyclables. During 2018, OCRRA continued to provide free consultations, as well as free containers and decals to all types of businesses, over 228 in total.

Business can access a wide variety of information on OCRRA's website (<https://ocrra.org/services/recycle/recycling-for-business/>) to enhance onsite recycling and waste reduction efforts, including ordering containers, recycling guides, and posters to promote recycling within the office environment. Each year, business recycling accounts for some 80% of the community's total waste reduction effort. In 2018, businesses recycled over 152,000 tons of mandatory recyclable materials.

In the fall of 2009, OCRRA began the [Blue Ribbon Recycler](#) Program to recognize businesses that demonstrate recycling excellence in the workplace. Each applicant to the program must meet specific criteria in regards to recycling, such as providing recycling containers for all employees and purchasing recycled paper. Once a Recycling Specialist determines that a business qualifies, it receives a certificate from OCRRA and recognition on the OCRRA website. If a business does not meet all



criteria, it provides an opportunity to identify areas for improvement. The Blue Ribbon Recycler Program is an incentive for businesses to achieve recycling excellence by offering them recognition that they can then share with their clients and customers. In 2018, two additional local business were certified as Blue Ribbon Recyclers through this program: Barton & Loguidice and Anchor QEA. To date, there are over 67 certified Blue Ribbon Recyclers in Onondaga County.

Recycling at Schools

Schools generate a significant portion of the recyclables in a community, in the form of paper, cardboard and containers. Because of this and the importance of educating children early about recycling, schools are always a major focus of OCRRA's public education. Recycling Specialists regularly visit school custodians, teachers and administrators to help with design and improvement of their recycling programs. OCRRA's Recycling Specialists provided over 183 classroom presentations and assemblies for the 130

schools throughout the county in 2018. An additional triumph of OCRRA’s school outreach in 2018 was cafeteria food scraps recovery in Holy Family School, a private Catholic school in the community, as well as the addition of Manlius Pebble Hill School, a private high school in Syracuse. With these additions, there are now a total of 16 schools spread throughout 5 districts, yielding a total of 7,169 students in Onondaga County that separate food scraps for OCRRA’s large-scale compost efforts every day.



Students at Cherry Road Middle School in Syracuse participate in OCRRA’s cafeteria food scraps recovery compost program. The Westhill School District is one of five total school districts that currently participate in this program: 7,169 total students, across 15 schools, in 5 districts, in Onondaga County are composting their leftover school lunch food scraps on a daily basis.

Additionally, 2018 continued the implementation of OCRRA’s interactive, digital online education program. This web-based program includes a series of professionally-produced videos, interactive games and curriculum-aligned classroom activities. Aimed at third through fifth graders, this program teaches students about waste reduction, composting and the waste-to-energy process in a convenient online format. The videos and games can be accessed via the internet in and out of the classroom at teacher and student convenience. Students can participate on their own with individual computers, tablets and mobile devices, or they can work together on classroom “smart” boards. The content adheres to NYS curriculum requirements and all topics include a list of vocabulary words with full definitions to review, as well as pre- and post-testing questions to evaluate student knowledge. The program has been well received by both students and teachers in the 100+ classrooms that have executed it in the community so far, with student test scores increasing an average of 13% after completing the activities and videos. Check out the online education program here: <http://ocrra.org/services/education-program/>



Screenshots of OCRRA’s online educational videos and digital games found at ocrra.org.

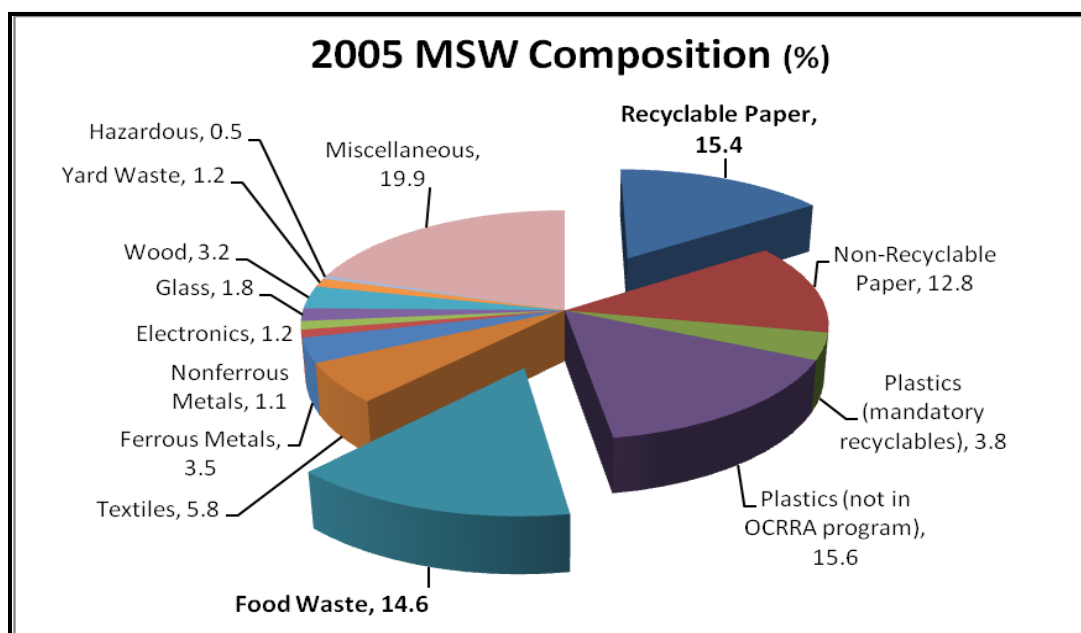
2005 Waste Quantification & Classification

In September 2005, OCRRA conducted a Waste Quantification & Classification study to measure the composition of curbside recyclables and Municipal Solid Waste (MSW), brought to the Waste-to-Energy plant operated by Covanta Energy. Samples from these streams were sorted, as delivered, into more than 50 categories. Similar studies in 1993 and 1998 have been used to inform decisions concerning the expansion of the list of mandatory recyclables and public communications. The 2005 study allowed more current examination of recycling trends.

According to the findings of the study, the majority of mandatory recyclable materials (78%) are indeed being recycled. However, approximately 15% of MSW is recyclable fiber (cardboard, office paper, newspaper and magazines) and 14% is food waste (*see Figure 3*). These constitute the largest volume by far of potentially recyclable material that ends up in the trash. This information has allowed OCRRA to focus its efforts on capturing more recyclable paper through its business and school recycling campaigns and more food waste through the expansion of its composting program.

As of 2018, the data acquired from this most recent study is thirteen years old. More up-to-date information would be invaluable for further program evaluation; accordingly, OCRRA plans to conduct another large-scale Waste Quantification & Classification in 2019.

Figure 3



5. Highlights of the 2018 OCRRA Recycling Program

Again in 2018, OCRRA's award-winning recycling programs demonstrated sound environmental solutions, excellent public participation and quality disposal and recycling services for the residents of Onondaga County, including:

- In total, the community recycled nearly 500,000 tons of material in 2018, for a 56% recycling rate, resulting in waste disposal costs savings of over \$42 million! This environmental effort prevented the generation of over 700,000 metric tons of carbon dioxide.
- More than **\$263,000 in state grants** were received in 2018, in connection with reimbursement of

Household Hazardous Waste collection expenses, compost equipment, and curbside blue bin purchases. Several new grant applications were submitted to the NYSDEC.

- OCRRA's Earth Day Litter Cleanup was held on Friday, April 20, and Saturday, April 21. More than 7,000 volunteers from some 285 groups participated; **100,000+ pounds of litter were collected**; more than 2.5 million pounds of litter collected since 2003; one of the largest Earth Day litter collection events in the country.
- Over 28 tons of paper from 1,387 residents were shredded and recycled as part of a June "Shred-o-Rama" event at the NYS Fairgrounds. Since the Agency started this program in 2004 to help local residents prevent identity theft, over 1.3 million pounds of confidential personal documents have been recycled.
- OCRRA partnered with Covanta to host a mercury collection event on August 13. Thanks to over 130 residents, 168 mercury thermometers and 109 mercury thermostats were collected; **505 grams of mercury prevented from entering the environment**, which is comparable to recycling 151,000 compact fluorescent light bulbs. Residents can recycle mercury thermometers and thermostats year-round at OCRRA's Ley Creek Drop-Off Site and get a \$5 Home Depot Gift Card from Covanta and a replacement thermometer.
- OCRRA continued to play a leadership role in urging state legislators to establish the materials management economy of the future by supporting several Extended Producer Responsibility measures including alkaline batteries, as well as a statewide prohibition on single-use plastic bags.
- A new one-year contract for 2019 was signed with Waste Management for MRF services (sorting, baling, and marketing of curbside recyclables). The contract limits OCRRA's financial exposure during currently poor market conditions and ensures an outlet for recovered materials.
- OCRRA's pioneering food scrap composting service processed over **12 million pounds of food scraps** in 2018 from commercial and institutional generators. This included thousands of pounds of cafeteria food scraps separated daily by 7,000 local school children. After a 90-day processing period, this material was among the 4,500 yards of compost that was utilized to restore the habitat along the western shoreline of Onondaga Lake.
- A total of 12 tons of unwanted clothes, shoes, bedding, and other textiles were collected for reuse or recycling as part of a November collection event at Destiny USA, benefitting the Salvation Army and the Rescue Mission.
- OCRRA's team of Recycling Specialists conducted 228 business recycling visits and 247 apartment visits in 2018, held 82 meetings with school custodians to discuss recycling, and provided 183 classroom presentations.
- In 2018 OCRRA achieved record sales of its bulk compost having distributed more than 15,300 yards of material and making commitments for an additional 20,000 yards in 2019 for the Honeywell restoration project along the shores of Onondaga Lake. OCRRA's pioneering food scrap composting program processed over 12 million pounds of food scraps in 2018 from commercial and institutional generators. This included thousands of pounds of cafeteria food scraps separated daily by more than 7,000 local school children. After a 90-day processing period, this material was among the thousands of yards of compost that was utilized to restore the habitat along the western shoreline of Onondaga Lake as well as in other commercial and residential applications.

- OCRRA continued its compost bagging collaboration with Arc of Onondaga. Arc assists individuals with developmental disabilities to achieve their fullest potential. Thousands of bags of OCRRA’s STA-certified compost were sold through a network of 30+ lawn and garden retail outlets, helping to return valuable nutrients to local soils.

Yard and Food Waste Composting

OCRRA’s composting facilities help New York State meet its environmental policy objectives to keep organics out of the trash by developing organics management infrastructure.

In 2018, OCRRA’s “state of the art” food and yard waste Amboy Compost Facility, which was designed to ultimately process over 9,000 tons of institutional and commercial food waste annually, processed over 3,600 tons of total food scraps.

2018 brought growth to the Food Waste Composting Program. OCRRA is currently processing over 115 tons of institutional and commercial food scraps weekly.

Included in this total is food waste from:

- Arcadis
- Barton & Loguidice
- Bliss Ice Cream
- Chipotle
- Crouse Hospital
- Empire Brewing Company
- G&C Foods
- Jordan-Elbridge Central School District (Chartwell Services)
- Fayetteville-Manlius School District
- Giovanni Food Company, Inc.
- Holy Family School in Fairmount
- LaFayette School District (Grimshaw Elementary)
- LeMoyne College (Sodexo)
- Manlius Pebble Hill School
- Marriott Syracuse Downtown
- Novelis
- Onondaga Community College
- Pastabilities Restaurant
- Paul deLima Coffee
- Russo Produce
- Sheraton Syracuse University Hotel & Conference Center
- SUNY Upstate at Community General Hospital (Morrison)
- SUNY Upstate University Hospital
- Syracuse Banana
- Syracuse University
- The Centers at St. Camillus (Sodexo)
- The Sweet Praxis
- Wegmans, includes 8 CNY stores
- Westhill Central School District
- West Genesee School District (Split Rock Elementary)



In 2018, OCRRA continued its association with the US Composting Council and their Seal of Testing Assurance (STA) Program. OCRRA’s finished compost is USCC STA certified, meaning that it is a high-quality material that is consistent from batch to batch and guarantees that it has been laboratory tested by a third party and meets all USCC, NYSDEC and US EPA criteria. The demand for OCRRA’s compost products continued to grow and has been used in many “Green Infrastructure” projects across the State.

Finished compost sales from the Amboy and Jamesville Compost Sites included over 11,000 cubic yards of compost and 5,800 cubic yards of mulch in 2018. Through a partnership with ARC of Onondaga, OCRRA's premium compost was once again offered for sale in conveniently packaged 1 cubic foot bags (seen in photos below), at 30+ local retail outlets throughout the community.



As in previous years, OCRRA's finished compost was available for residents to take home as part of the Residential Pass Program. In 2018, the "Residential Pass Program" enabled residents to purchase a drop-off pass for \$25, which allowed them to drop off an unlimited amount of food and yard waste at either of our compost sites. Residents were also able to purchase finished mulch and compost by the trunk load or in bulk. In 2018, residents purchased over 2,100 compost passes.

OCRRA again in 2018 offered its free Christmas tree recycling program to residents. The facilities were open for a two-week period in January for residents to drop off their Christmas trees for composting at no charge.

Batteries

Residents in the OCRRA service area are able to drop off their old batteries at nine local grocery stores, which are then collected weekly by OCRRA. In addition, OCRRA offers a curbside collection of alkaline batteries each year during the month of July. In 2018, over 63 tons of batteries were collected, including over 4,000 pounds of rechargeable batteries which are recycled at no cost through the Call2Recycle program. Residents in the OCRRA service area are now recycling more rechargeable batteries per capita than any other large community in New York State.



In 2010, New York State adopted legislation to require the recycling of rechargeable batteries, to be provided by the manufacturers, physically or financially. This new law means that manufacturers are providing outlets for recycling at all retail locations that sell rechargeable batteries at no charge to the consumer. The law intends to ensure that rechargeable batteries stay out of the waste stream and that residents and businesses have easy access to recycling options. In addition to the nine local stores that partner with OCRRA to recycle rechargeable batteries, there are now several retail locations that accept them as well. (At left: Community resident Noah Jones demonstrates OCRRA's annual alkaline battery curbside collection in July 2018.)

More information about OCRRA's battery collection program is available online at: <http://ocrra.org/resources/household-batteries/>

Fluorescent Light Bulbs

Fluorescent light bulbs are a popular household item because of their energy saving potential. However, these energy efficient bulbs contain a small amount of mercury, a potentially harmful chemical, and should not be mixed with regular household trash at the end of their life. To encourage residents to dispose of these properly and keep mercury out of the trash, OCRRA partners with local hardware stores to provide residents with convenient locations to drop off old bulbs. From the stores they are shipped off for proper disposal. There are 15 participating stores throughout the county. Over 34,000 bulbs were collected in 2018 at these stores. Further information about this environmental program is available online at: <http://ocrra.org/resources/fluorescent-bulbs/>

Household Hazardous Waste

In 2018, OCRRA continued the convenient, year-round Household Hazardous Waste (HHW) collection model that was started in 2013 in response to residents' suggestions. This HHW program consists of a Monday-Friday drop-off at Environmental Products and Services of VT, Inc. This popular environmental service allows residents to safely dispose of their hazardous waste, keeping these materials out of the waste stream. Among the hazardous wastes collected are adhesives and resins; oil-based paint; paint thinner; solvents; thermometers, thermostats, and other mercury containing products, pesticides and fluorescent light bulbs. Direct costs are included in the fee per vehicle charged by the vendor to OCRRA. In 2018, approximately 1,796 residents took advantage of this drop-off program, dropping off a total of 18,295 gallons and 18,739 pounds of hazardous materials for proper disposal.

Mercury Thermometer/stat Exchange Program

OCRRA continued its mercury thermometer exchange and thermostat collection program at the Rock Cut Road Transfer Station in 2018. OCRRA partners with Covanta Energy to provide residents with non-mercury thermometers in exchange for their old mercury thermometers. Over 135 residents brought in 168 thermometers and 109 thermostats for recycling in 2018. This amounts to approximately 1.1 pounds of mercury being removed from the environment. Since 2003, nearly 1,000 residents have brought in over 2,000 mercury containing devices to Rock Cut Road. This exchange program helps prevent mercury contained in household items from escaping into the environment when broken or improperly disposed. Thermostats are handled through the [Thermostat Recycling Corporation](#) (TRC), a national industry-funded program that provides proper disposal of mercury-containing thermostats at no cost.

Shred-O-Rama

In response to increasing public concern over identity theft, OCRRA held another annual Shred-O-Rama event in 2018 in Syracuse. Over 1,300 residents attended the event, and dropped off 29 tons of confidential documents to be shredded. Paper was shredded on site and then recycled by Confidata and Shred Solvers. Since OCRRA started offering this program in 2004, over 600 tons of paper have been shredded and recycled.



Textile Recycling

In 2018, over 365 residents joined OCRRA and dropped off over 12 tons of clothing and textiles at a collection event conducted at Destiny USA mall in Syracuse. All materials collected were donated to the Salvation Army and Rescue Mission to help change lives in the Central New York community.



Non-Profit Recycling Incentive Program for Local Charities

In 2018, OCRRA again provided a "recycling credit" to the local Rescue Mission, Salvation Army, and Habitat for Humanity for each documented ton of material (clothing, furniture, etc.) recycled through their organizations. The organizations were credited toward their monthly waste disposal fees through the OCRRA system. In 2018, OCRRA credited these organizations with approximately \$16,123.

Extended Producer Responsibility

OCRRA has taken a leadership role in supporting Extended Producer Responsibility (EPR) initiatives in New York State. EPR requires manufacturers to take responsibility for the safe and environmentally sound disposal of items they make and sell. This includes reducing toxic materials used for manufacturing and a requirement to implement some form of a take-back and reuse and/or recycling program.

OCRRA is an active member of the [New York Product Stewardship Council](#), a statewide, non-profit group which partners with local government agencies to advocate for EPR policies. With great success, NYPSC tackled household-generated pharmaceutical waste on three fronts in 2018: policy, education, and infrastructure. NYPSC participated in all of DEC's roundtable meetings to provide recommendations on drug take-back best practices and program implementation, and to answer technical questions. NYPSC's contributions informed the development of DEC's Pharmaceutical Stewardship Report which recommended that an independent stewardship organization implement statewide take-back funded by drug manufacturers. The legislature passed the NY Drug Take-Back Act, which the Governor signed on July 10. The new law—the fourth state law in the nation—requires pharmaceutical manufacturers to finance and manage the safe collection and disposal of unused medications and requires pharmacies with ten or more U.S. locations to participate as drug collection sites to help ensure convenient access for residents.

In 2014, a new New York State law went into effect, requiring manufacturers to collect mercury thermostats. The bill, known as the Mercury Thermostat Collection Act, requires that manufacturers develop and implement a thermostat collection program that meets a pre-established goal of collecting 15,500 thermostats by 2015. The law requires the New York Department of Environmental Conservation (NYDEC) to establish annual collection goals thereafter, and to make changes to the program if manufacturers fail to meet these goals. This could include requiring manufacturers to pay financial incentives to recyclers (residents and contractors) to encourage greater participation.

In 2010, New York State passed the [Electronic Equipment Recycling and Reuse Act](#), which ensures that manufacturers are responsible for the recycling costs of electronics, whether physically or financially. Since this law went into effect in April 2011, over 400 million pounds of e-waste have been collected from across New York State. OCRRA has urged the NYSDEC to issue regulations that would help achieve the legislative intent of the law; year-long, convenient drop off of unwanted eligible electronics at no cost to the consumer/resident.

Also in 2010, New York State adopted legislation to require the recycling of rechargeable batteries to be provided by the manufacturers, physically or financially. Beginning in late 2011, the [NYS Rechargeable Battery Recycling Act](#) banned the disposal of any rechargeable batteries in NYS. This new law means that manufacturers are providing outlets for recycling at all retail locations that sell rechargeable batteries at no charge to the consumer. OCRRA supports a state EPR bill that would provide for recovery of these "primary" batteries by such manufacturers as Energizer and Duracell. Such legislation is in the early stages of consideration in the New York State Legislature.

In the future, OCRRA hopes to see further discussion of New York State EPR laws, particularly for paint, alkaline (primary) batteries, mattresses, and carpeting.

The growing product stewardship movement in the U.S. seeks to ensure that those who design, manufacture, sell, and use consumer products take responsibility for reducing negative impacts to the economy, environment, public health, and worker safety. These impacts can occur throughout the lifecycle of a product and its packaging, and are associated with energy and materials consumption; waste generation; toxic substances; greenhouse gases; and other air and water emissions. In a product stewardship approach, manufacturers that design products and specify packaging have the greatest ability, and therefore greatest responsibility, to reduce these impacts by attempting to incorporate the full lifecycle costs into the cost of doing business.

Product stewardship is the act of minimizing the health, safety, environmental, and social impacts of a product and its packaging throughout all lifecycle stages, while also maximizing economic benefits. The manufacturer, or producer, of the product has the greatest ability to minimize adverse impacts, but other stakeholders, such as suppliers, retailers, and consumers, also play a role. Stewardship can be either voluntary or required by law.

Extended producer responsibility (EPR) is a mandatory type of product stewardship that includes, at a minimum, the requirement that the manufacturer's responsibility for its product extends to post-consumer management of that product and its packaging. There are two related features of EPR policy: (1) shifting financial and management responsibility, with government oversight, upstream to the manufacturer and away from the public sector; and (2) providing incentives to manufacturers to incorporate environmental considerations into the design of their products and packaging.

The following principles include key elements that should be included in all EPR legislation.

1. Producer Responsibility

- Producers are required to design, manage, and finance programs for end-of-life management of their products and packaging as a condition of sale. These programs may or may not use existing collection and processing infrastructure. Programs should cover all products in a given category, including those from companies no longer in business and from companies that cannot be identified.

2. Level Playing Field

- All producers within a particular product category have the same requirements, whether they choose to meet them individually or jointly with other producers.

3. Results-based

- Producers have flexibility to design the product management system to meet the performance goals established by government, with minimum government involvement.
- Producer-managed systems must follow the resource conservation hierarchy of reduce, reuse, recycle, and beneficially use, as appropriate.
- Products must be managed in a manner that is protective of human health and the environment.
- Producers design and implement public education programs to ensure achievement of performance goals and standards established by government.
- All consumers have convenient access to collection opportunities without charge.

4. Transparency and Accountability

- Government is responsible for ensuring that producer programs are transparent and accountable to the public.
- Producer programs, including their development and the fate of products managed, provide opportunity for input by all stakeholders.

5. Roles for Government, Retailers and Consumers

- Government is responsible for ensuring a level playing field for all parties in the product value chain to maintain a competitive marketplace with open access to all, for setting and enforcing performance goals and standards, for supporting industry programs through procurement, and for helping educate the public.
- Retailers only sell brands within a covered product category that are made by producers participating in an industry program, and are responsible for providing information to consumers on how to access the programs.
- Consumers have a responsibility to reduce waste, reuse products, use take-back and other collection programs, and make appropriate purchasing decisions based on available information about product impacts and benefits.

6. Examples of materials that either currently managed through a product stewardship structure in New York State (indicated by “*”), or could be in the future:

- Electronics, including old TVs and computers*
- Mercury-containing thermostats*
- Rechargeable batteries*
- Tires
- Pharmaceuticals
- Paint

Resolution No. 2130, 2018

Resolution Supporting Take Back Legislation for Pharmaceutical Products

WHEREAS, pharmaceutical manufacturers have a unique stewardship responsibility as suppliers of millions of pharmaceuticals in New York State, the number of which has increased in the past decade; prescriptions filled in retail pharmacies in New York State numbering 255,645,810 in 2014; and

WHEREAS, estimates indicate that 30-80% of patients do not finish prescriptions for common medications including pain medication; and

WHEREAS, in 2002, The US Geological Survey (USGS) surveyed 139 rivers in 30 States and identified 80% of the streams sampled showed evidence of drugs, hormones, steroids and personal care products; and

WHEREAS, there have been increased concern about the impact of pharmaceuticals in NYS water supplies and the NYS Department of Environmental Conservation (DEC) has specific recommendations regarding not flushing medications; and

WHEREAS, drugs improperly stored in the home too often end up in the hands of children, teenagers, and potential abusers, and a lack of convenient drug collection options contributes to the national drug abuse epidemic that is now the leading cause of injury or death in the U.S., ahead of car accidents; and

WHEREAS, more than 2,000 people in New York State die annually from opioid overdose, most commonly from prescription pain relievers, and deaths from drug overdoses and chronic drug abuse in NYS have increased at an alarming rate of 71 percent between 2010 and 2015; and

WHEREAS, the number of opioid-related deaths in Onondaga County has more than tripled from 2012 to 2016; and in 2016, Onondaga County had the highest rate of opioid overdose deaths among Central New York counties, and according to the U.S. Centers for Disease Control and Prevention, 91 Americans die every day from opioid overdose; and

WHEREAS, while current medication ‘take back’ efforts have been valuable efforts, they are sporadic and inconsistent in their availability across New York State; and

WHEREAS, these efforts have been largely local responses facilitated by police, law enforcement and substance abuse programs, they are hindered by inconsistent funding, NYS laws regulating medication returns and a lack of a coordinated statewide system; and

WHEREAS, product stewardship programs involving producers who take responsibility for managing a product throughout its lifecycle have been implemented across the United States, but these programs are generally used for toxic and hard to handle products requiring environmentally safe disposal; and

WHEREAS, pharmaceutical manufacturers currently operate and fund successful Medication Take Back programs in Europe, Canada and multiple locations on the West Coast of the United States; and

WHEREAS, in the United States, 21 local governments (including Rockland County, NY) and two states (Massachusetts and Vermont) have already passed laws which require drug companies to establish collection programs for both controlled and non-controlled substances, providing residents with a convenient way to safely remove expired and unwanted medications from their homes, and many other jurisdictions around the country are considering similar legislation, including Erie County and Westchester County, NY; and

WHEREAS, there is a critical need to establish a pharmaceutical take back program in New York State, now, therefore be it

RESOLVED, that the Onondaga County Resource Recovery Agency (OCRRA) hereby strongly supports daily access to a safe, convenient, and environmentally sound medication return program for unwanted prescription medications; and be it further

RESOLVED, that the Agency also supports such a medication disposal program that is fully funded by the pharmaceutical manufacturers, including the cost for collection, transport and disposal of these materials as hazardous waste; and be it further

RESOLVED, that our Agency thereby strongly supports changes in New York State law, as proposed in New York State Legislature Bills A.9576, and S.7354, that would require a program for medication recycling and disposal to occur. A copy of this Resolution shall be sent by the Agency Board Secretary to State and local officials. This Resolution shall take effect immediately.

Resolution Adopted Date: March 14, 2018

Vote: Ayes: 9 Nays: 0 Abstentions: 0

Community Events and Public Outreach

OCRRA is committed to maintaining high levels of community participation through its recycling program. In 2018, OCRRA's recycling team participated in numerous area events and fairs, including Party for the Planet at the Rosamond Gifford Zoo in Syracuse, the Taste of Westcott Street (for Syracuse University students), Save the Rain's Clean Water Fair and the CNY Home & Garden Show, among others. Recycling, reduction and compost information was distributed including blue bins, recycling instructions and numerous recycling-related promotional items. OCRRA interacted with thousands of people at these community events.

In addition to events, OCRRA Recycling Specialists conducted multiple presentations to a wide variety of audiences, including school-age children, business office staff, teachers, Rotary Clubs, Boy and Girl Scout troops and neighborhood groups. These presentations all provided information about recycling, as well as the importance of environmental stewardship.

OCRRA Recycling Specialists also shared their expertise by presenting at various industry conferences in 2018, including the annual Federation of NY Solid Waste Associations Conference and the annual New York State Association for Reduction, Reuse and Recycling Conference.

Earth Day

OCRRA also sponsors an Annual Earth Day Litter Clean-Up, which is a community-wide, two-day event occurring in April each year. In 2018, **over 7,185 volunteers from over 285 community groups participated, collecting 103,000+ pounds of litter** as part of this annual cleanup program. Volunteer groups consisted of schools, Girl and Boy Scout troops, community and neighborhood groups, and businesses. This program has been a continued success since 1994, with over 2 million pounds of litter cleaned up to date. *(At right, Earth Day cleanup volunteers from Girl Scout Troop 60037 in Syracuse.)*



Beyond these noteworthy activities, a host of other services and accomplishments continued to be provided through the recycling program, including:

- ♻️ A year-round recycling drop off six days per week for mandatory recyclables at OCRRA Transfer Stations. This service includes a no-charge drop-off for household scrap metal and office paper from small businesses;
- ♻️ Grant application submittals to support a variety of OCRRA programs, including advertising and public education, food-waste composting, household hazardous waste collection, recycling containers and recycling personnel costs; and
- ♻️ Participation in solid waste associations. All members of OCRRA's recycling team are members of the New York State Association for Reduction, Reuse and Recycling ([NYSAR³](#)).

6. Benchmark of Local MSW Disposal Rate

The New York State Solid Waste Management Plan outlines the amount of waste that is managed in combustors or landfills on a per capita basis across the state. Currently, the 'Beyond Waste' plan identifies the average New Yorker's amount of waste to be 4.1 lbs/person/day, and establishes a progressive reduction goal of 1.7 lbs/person/day in 2020. In comparison, as a result of the recycling and waste reduction efforts of Onondaga County residents, businesses and institutions, the per capita disposal rate within the OCRRA system is calculated to be: 3.37 lbs/person/day.