

Onondaga County Resource Recovery Agency



2020 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, 2020 through December 31, 2020

Date: March 1, 2021

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

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1. 2020 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 2020, **34,533 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 457,000.

In 2020, **422,126 tons** were recycled through mandatory and voluntary recycling efforts (both residential and commercial) in the community, for a **total recycling rate of 52%** (see Table 1).

OCRRA's environmental programs, including the recovery of residential, commercial, and institutional recyclables, were negatively impacted in 2020 due to the pandemic health crisis.

OCRRA achieved a processible recycling rate of 36%, comprising some 152,543 tons of residential, commercial, and institutional materials (see Table 2). A 40% recycling goal¹ as set forth in the NYSDEC Waste to Energy facility permit was not realized due to the depressed quantity of recyclable materials generated by the commercial and institutional sectors in the wake of Covid-19 impacts on the local economy, particularly reduced generation of commercial cardboard and food waste.



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.

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 2020 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 (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.

Table 2 shows totals for only the “mandatory recycling materials,” mentioned above. In Table 3, an estimated 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 2020.

Table 1 - 2020 Recycling and Solid Waste		
Recycling	Tons	Percent of Total Waste
Curbside Recycling (Primarily Residential)	34,533	
Commercial Recycling (Primarily Business)	387,593	
Total Recycling	422,126	52%
Solid Waste		
OCRRA Municipal Solid Waste (MSW)	280,899	
Less MSW Ferrous & Nonferrous Recycling ¹	12,543	
OCRRA Construction & Demolition Debris (C&D)	65,273	
Other Waste ²	37,200	
Total Solid Waste	395,915	48%
Total Recycling and Solid Waste	818,041	
¹ Ferrous and nonferrous metals that are recovered from MSW at the Waste-to-Energy Facility and recycled		
² Includes biosolids currently being sent to a landfill.		

Table 2 - 2020 Processible Recycling and Municipal Solid Waste¹

Processible² Recycling	Tons	Percent
Curbside Recycling (Primarily Residential)	34,533	
Processible Commercial (Primarily Business)	118,010	
Total Processible Recycling	152,543	36%
Municipal Solid Waste (MSW)		
Incoming Municipal Solid Waste	280,899	
Less MSW Ferrous & Nonferrous Recycling ³	-12,543	
Total MSW	268,356	64%
Total Processible Recycling and Solid Waste	420,899	

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.

³When calculating recycling rates, ferrous and nonferrous metals recovered from MSW at the Waste-to-Energy Facility are subtracted to avoid double counting.

Table 3 - 2020 Total Recycling Composition (in tons)		
<i>includes commercial/industrial and residential</i>		
MATERIAL	2020	
Food Waste	77,570	18%
Yard Waste	7,064	2%
Wood	2,230	1%
Textiles	1,617	0%
Plastics	8,774	2%
Ferrous Metals, except MSW Ferrous	110,797	26%
MSW Ferrous & MSW Non Ferrous	12,550	3%
NonFerrous Metals, NonFerrous MSW	11,205	3%
Corrugated Cardboard	54,580	13%
Newspapers and Magazines	18,295	4%
Office / Mixed Paper	36,176	9%
Books	394	0%
Sludge	50,227	12%
Glass	6,185	1%
Special & Hazardous Wastes	182	0%
Electronics & Batteries	5,140	1%
Appliances	224	0%
Miscellaneous	18,918	4%
Total	422,126	100%

Greenhouse Gas Avoidance

Recycling has many environmental benefits, including resource and energy savings due to avoidance of using virgin materials. The USEPA estimates that there is a net reduction of 2.94 metric tons of CO² for every ton of material recycled ([Greenhouse Gases Equivalencies Calculator - Calculations and References | Energy and the Environment | US EPA](#)). Based upon the EPA’s GHG reduction factor, OCRRA estimates a net greenhouse gas reduction of 1.2 million metric tons of CO² based upon the 422,126 tons of voluntary and mandatory materials recycled in 2020.

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 4 – 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 Plastic Dairy Containers• Soft cover books

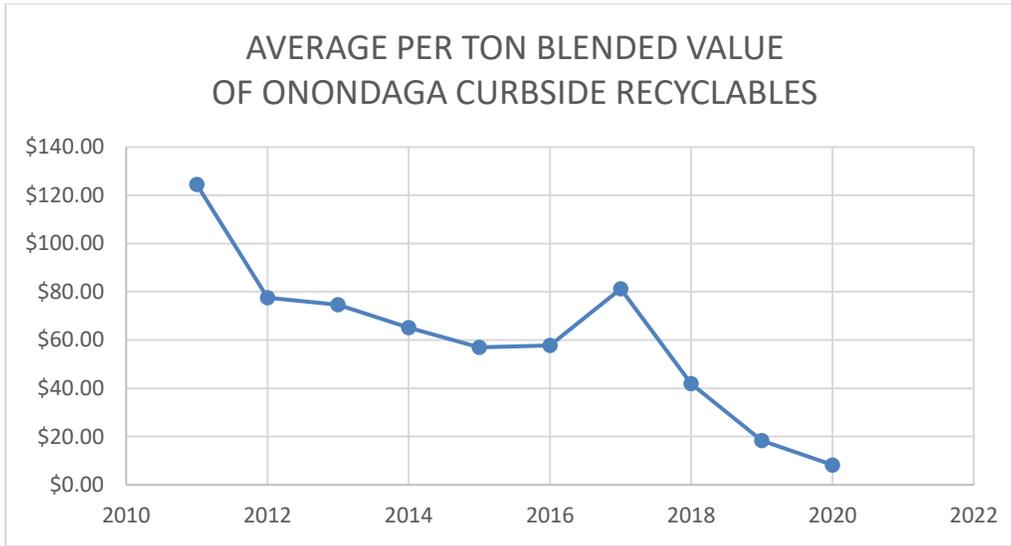
2. Markets, Trends and Material Recovery Facilities (MRF's)

Like other communities across New York State and the country, OCRRA has been hard hit financially by China's National Sword policy of ceasing to accept a wide variety of recyclable materials for reprocessing and remanufacture, particularly mixed paper grades, which, by weight, comprise 55% of sorted recyclables. Under the MRF contract, the Agency received \$123,000 in revenue from all materials recovered in 2017. However, in the wake of China's exit from the market in 2018, material values subsequently plummeted. In 2018, OCRRA paid more than \$667,000 to the MRF; in 2019, OCRRA paid \$1.8 million to the MRF. **In 2020, OCRRA paid \$1,997,345 for the MRF to sort 34,533 tons of residential recyclables.** The Agency does not subsidize commercially-generated recyclables.

Market prices, particularly for mixed paper, have significantly reduced the Average Blended Value (ABV) of curbside recycling commodities, such that the value no longer covers the cost of processing the recyclables. The ABV is received from the sale of processed residential recyclable commodities. The costs of processing and marketing materials is generally constant and is independent of market conditions, but increases over time due to inflation from rising labor costs and capital investments. The ABV is variable based on commodity market fluctuations and is therefore a useful number to track the performance of the recyclable commodity market

Figure 1 below indicates the decrease on a per ton basis of the average blended value of residential curbside recyclables as tracked since 2011. Such average blended per ton values are a weighted average based upon: 1) a predetermined percentage by weight of each commodity in curbside recycling, and 2) the market value for each commodity. Such average blended values are at record lows in the wake of China's National Sword policy, which is further discussed below. The trend line indicates the generally declining value of these materials on an aggregated basis; mixed paper and corrugated cardboard are the major driver of the average blended value calculation, as they comprise more than 50% of curbside recyclables by weight.

Figure 1 –Declining Average Blended Value Per Ton of Blue Bin Commodities in Onondaga County



As 2020 ended, commodity prices increased. OCC, mixed paper, aluminum, and natural HDPE values increased. The national average price for corrugated containers moved up 12% in December and was higher at the end of 2020 compared to 2019. Mixed paper was up 14% to an average of \$32 per ton, and the last time the price for mixed paper was that high was October 2017.

For additional detail on 2020 commodity values, please see the Agency’s Quarterly Recycling Reports submitted to the NYSDEC, available online at OCRRA.org.

MRF Contract

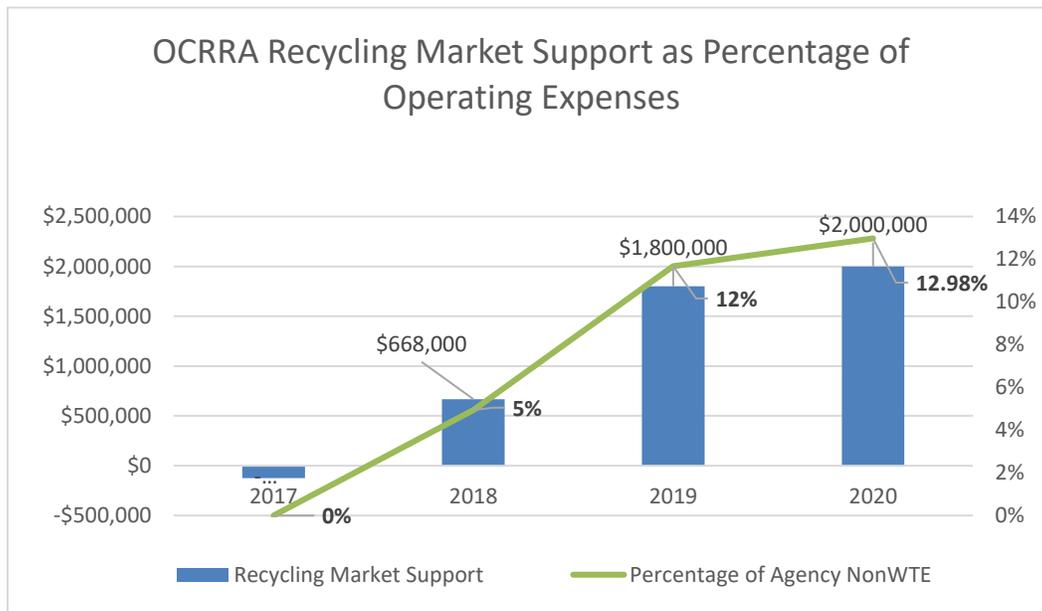
For nearly 30 years, OCRRA has contracted with a local material recovery facility (MRF), that is owned and operated by Waste Management Recycle America, (WM-RA), to sort, bale and market the residential recycling material that is collected curbside by private haulers, municipal haulers and municipalities with private hauling contracts. There is no such contract arrangement for commercial materials, which is primarily commercial cardboard and office paper. The contract has been structured such that OCRRA pays a fee to WM-RA to perform the sorting, baling, marketing and transport of the recycled materials and shares in revenues created by material sale (if any). Depending on market conditions through the years, this contract has either cost or generated OCRRA revenue. In 2020, OCRRA paid \$1.99 million to the MRF.

Through this contract, OCRRA enabled private sector and municipal haulers to deliver residential recyclables to WM-RA at a tip fee of \$0, thus providing an incentive for recycling to meet the County Source Separation Law and NYSDEC WTE permit requirements. Recognizing the sustained exponential increase in fully subsidizing the processing and marketing of curbside recycling, in October 2020, the OCRRA board adopted its FY2021 budget which ended the \$0 tip fee for curbside recyclables and enacted a \$35/ton tip on residential recyclables delivered to the OCRRA-contracted MRF effective January 1, 2021.

During the past decade, most of the demand for recycled material came from China. In 2018, China initiated their National Sword policy to drastically reduce material imports and put quality restrictions on

imports of recycled material. As a result, the market prices for recycled material dropped precipitously. Payments to WM-RA went up to nearly \$670K in 2018 and exceeded \$1.8 million in 2019. In 2019, OCRRA had a contract with WM-RA in which the per-ton cost of sorting curbside recycling was not-to-exceed \$49 / ton. The contractual per ton not-to-exceed cost increased to \$65 /ton in 2020, which resulted in total MRF processing costs of nearly \$2 million paid by OCRRA to support curbside recycling. OCRRA’s recycling costs now comprise 13% of the Agency expenses, excluding WTE fixed costs. These cost impacts are summarized in Figure 4 below.

Figure 2 – OCRRA Costs and Percentage of Total Agency Operating Budget for Recycling



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.² 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.
- “**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.

² deThomas, D. The Shape of MRFs to Come. Resource Recycling, Dec 2011.

- 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.³
- **Plastic bags are being banned** far and wide, including state-wide in New York, starting in March 2020 (delayed briefly due to Covid-19).
- Increasing momentum for **Extended Producer Responsibility** legislation 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.⁴ New York regulations are currently being developed and will go into effect in 2022.
- 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.
- Increase of the use of robotics, and technology improvements, at material recovery facilities, to automate and advance the efficiency of sorting, in order to improve quality of recyclables.

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.

Extended Producer Responsibility

Many states, including New York, have begun passing legislation requiring manufacturers to take responsibility for the end-of-life management of their unwanted products and product packaging, which relieves local municipalities of the responsibility of recovery and proper disposal / recycling, including the associated costs.

Under an EPR approach, material recovery is managed by product manufacturers. Program costs are paid through the purchase of the product, not through a taxing structure. According to Scott Cassell, Chief Executive Officer of the Product Stewardship Institute, “The collapse of recycling markets following China's policy to restrict imports of recyclable materials has made it clear that communities are unfairly burdened by an inefficient and costly waste management system.” In the wake of the devastating financial impact caused by China's National Sword campaign, several states, including Connecticut, Maine, Indiana, Washington, Vermont, and New York are now evaluating an EPR approach for all packaging and printed paper; bills have been proposed in both the NYS Senate and Assembly.

OCRRRA’s Board of Directors has, over the years, passed several resolutions in support of enacting extended producer responsibility laws in New York State. There are over 110 such EPR laws in the US.

³ <http://waste360.com/blog/circular-file-less-less>

⁴ <http://compostingcouncil.org/landfill-bans-on-organics/>

NY State's EPR laws include the following:

Rechargeable Batteries

- Electronics
- Mercury Thermostats
- Pharmaceuticals (passed in 2018; anticipated to go into effect in 2021)
- Paint; passed in 2019 session and signed by the Governor 12/19

2019 Waste Quantification & Characterization

In the spring and fall of 2019, a Waste Quantification & Characterization (Q&C) study was performed 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 into more than 60 categories, and the results are being used to inform policy decisions concerning the list of mandatory recyclables, as well as provide areas of strategic focus for public education.

According to the findings of the study, the majority of mandatory recyclable materials are indeed being recycled. However, approximately 7.2% of MSW is potentially recyclable fiber (cardboard (5%), office paper (0.7%), newspaper (1.0%) and magazines (0.5%)) and 21% is food waste. These constitute the largest volume by far of potentially recyclable material that ends up in the trash.

Another key finding of the Waste Q&C was that much of the glass found in the typical curbside recycling bin (14.7%) was beverage containers such as wine bottles (6.3%), liquor bottles (3.0%) and non-alcoholic beverage containers such as ice tea bottles (5.4%). None of these bottles currently have a deposit; they are not included in the New York State Bottle Bill. If the Bottle Bill were to be expanded to include wine and liquor bottles, it would have a significant positive impact on recycling, as bottles that have a deposit are recycled at a much higher rate than those without one. When left in the blue bin, glass is typically used for daily cover and engineering purposes in a landfill. Bottles that are recovered through the deposit Bottle Bill are remanufactured into new glass containers.

OCRRA's board of directors has passed resolutions in support of expanding the New York State Returnable Container Act (Bottle Bill) to include the above mentioned glass beverage containers in order to increase recycling and improve both MRF processing efficiency and material quality.

3. 32020 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 an OCRRA transfer station.

OCRRA is not funded by taxes. The trash tipping fee revenue and energy revenue from sale of electricity generated by the WTE plant provide the bulk of the financing for recycling program components essential to achieving the mandated recycling rate. OCRRA applies for New York State 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, schools and apartment complexes by a staff of recycling professionals offering technical assistance; classroom presentations on recycling and environmental stewardship; and numerous brochures and educational materials. OCRRA received \$490,000 in state grants in 2020, in connection with reimbursement of Household Hazardous Waste collection expenses, compost equipment, curbside blue bin purchases, and recycling public education.

OCRRA’s recycling program covers costs necessary to assure waste haulers a zero tip fee at the private sector Material Recovery Facility (MRF) for residential recyclables during poor commodity market conditions. OCRRA also manages a transfer station that allows for the drop-off of blue bin recyclables at no cost. The transfer station is also a drop-off point for additional materials such as scrap metal, small appliances, mercury thermostats, mercury thermometers, fluorescent lamps and household batteries.

During 2020, OCRRA’s Recycling Program managed:

- ❁ Two yard waste compost sites.
- ❁ A commercial and institutional food waste composting program at the Amboy Compost Site (open year-round);
- ❁ A year-round Monday-Friday appointments for residents to drop off Household Hazardous Waste (HHW); paused operations intermittently during 2020 due to Covid 19;
- ❁ Year-long household battery collection at local drop-off points and a curbside collection in July; paused briefly in spring 2020 due to Covid-19;
- ❁ A mercury thermometer and thermostat exchange program; and

Direct program costs in 2020 (unaudited) associated with the recycling services are as follows:

Table 7 –RECYCLING COSTS		
PROGRAM	2020 EXPENSE	2019 EXPENSE
Recycling Personnel *	\$555,108	\$724,377
Material Recovery Facility (MRF) Fees	\$1,997,343	\$1,808,223
Public Education - Outside Service	\$ 129,084	\$436,488
Composting**	\$ 247,085	\$292,115
Household Hazardous Waste (HHW) Collection	\$ 73,729	\$91,862
Blue Bin Expense	\$ 33,240	\$192,980
Other Recycling Programs	\$132,723	\$255,825
Total Cost	\$3,168,312	\$3,801,870

*Includes all permanent compost personnel.

** Includes all temporary personnel.

4. Public Education, Program Outreach and Enforcement

Community outreach efforts, including recycling visits to businesses, schools, and apartment complexes, were extensively curtailed in 2020 due to challenges associated with the Covid-19 health crisis. In the interest of protecting public health, the Agency also cancelled several community events: the April Earth Day Litter Collection, the mercury thermometer/thermostat drop off event, and the Shred-o-Rama for confidential residential documents.

The Agency continued to provide drop off for household hazardous waste, mercury containing fluorescent lamps, and household batteries. OCRRA also continued its compost bagging operation. 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.

OCRRA Communications

Employing 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 public communication program in 2020, primarily investing resources into social media.

OCRRA's public message in 2020 focused on what goes in the recycle bin and how to avoid contamination. The campaign continued to utilize the "Save the World a Little Each Day" slogan, which reminds residents of the difference one person can make in preserving natural resources for future generations. This slogan was developed based on community surveys that determined what messages would resonate most with our target demographic. This campaign also highlights the OCRRA website as a community resource.

The Agency's comprehensive website, www.OCRRA.org, provides 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 (www.ocrra.org/order-supplies/).



In addition to paid media advertising, OCRRA continues to publish its quarterly newsletter (www.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 informs the public about specific recyclable materials. OCRRA distributes 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 70,000 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 11,000+ 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. OCRRA works to regularly augment the email address list each year through promotions and events.

OCRRA also continued its social media presence with its [Facebook page](#), and a [YouTube channel](#) in 2020, allowing people to actively engage in discussion about recycling and OCRRA services. Additionally, the community is able to learn about operations through a series of videos highlighting the

A screenshot of a Facebook post from OCRRA.org. The post text reads: "So you did some damage online shopping. We don't judge - we're just here to help you dig out of that sea of boxes and bubble wrap." Below the text are three bullet points: "X Styrofoam goes in the trash, NOT in your recycling bin.", "X Bubble wrap, plastic bags and plastic wrap do NOT go in your recycling bin - but they CAN be recycled at your local retailer.", and "✓ Cardboard goes in your recycling bin." At the bottom, there is a link to learn more about recycling shipping materials. Below the post is a video player with a red background. The video shows a hand holding a piece of bubble wrap and a plastic bag, with a sign that says "NOT IN RECYCLING BIN!". The video title is "Styrofoam, bubble wrap and plastics" and the duration is 0:08. Below the video player, there is a text overlay that says "OCRRA.ORG Recycle right this holiday season" and a "LEARN MORE" button.

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.

Additionally, 2020 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 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. Check out the online education program here: www.ocrra.org/services/education-program/



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

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 2020, OCRRA's state of the art food and yard waste Amboy Compost Facility processed over 3,250 tons of total food scraps. This was down nearly 50% from 2019 due to Covid-related impacts, including the closure of schools, restaurants, and less prepared foods from supermarkets, no public events and minimal activity at the NY State Fairgrounds.

More than 5,000 yards of STA-certified compost were utilized to restore habitat along the western shore of Onondaga Lake, and over 7,000 bags of premium ¼ inch compost were sold through a network of 30+ local home and garden centers.



In 2020, 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. Quarterly sample results are available at www.ocrra.org. The demand for OCRRA's compost products continued to grow and has been used in many "Green Infrastructure" projects across the State.

As in previous years, OCRRA's finished compost was available for residents to take home as part of the Residential Pass Program. In 2020, 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.

OCRRA again in 2020 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. Rechargeable batteries are recycled at no cost through the Call2Recycle program. 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. Further information about this environmental program is available online at: <http://ocrra.org/resources/fluorescent-bulbs/>

Household Hazardous Waste

In 2020, 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. (recently purchased by Miller Environmental Group). 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.

Mercury Thermometer/stat Exchange Program

OCRRA partners with Covanta Energy to provide residents with non-mercury thermometers in exchange for their old mercury thermometers. 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.

5. Conclusion

It is no understatement that 2020 challenged every aspect of our lives. Recycling, already under pressure from the impact of the Chinese export market, became even more challenged in the Covid-era. Average Blended Value (ABV) of the curbside bin dropped to negative values in the first and second quarters of 2020. Hope rebounded a bit at the end of fourth quarter, as commodity values, while still depressed, rose to levels that had not been seen since 2017.

The pandemic was a true stress test for recycling. OCRRA is pleased that its successful program endured while also realizing that there are several actions needed to make recycling more resilient and to ensure society reaps all the benefits from a robust recycling system. Key challenges include:

Challenge #1 – COVID-19 Pandemic Impacts

As reported in the prior Quarterly Recycling Report, the COVID-19 economic shutdowns continue to take their toll during the fourth quarter, impacting material supply and demand; market prices; and revenue for businesses and haulers. Continuing through the fourth quarter, several outlets for recycled goods were closed or limited to the public, which affected their recycling operations, such as textile collectors like the Rescue Mission and Salvation Army, as well as HHW and electronic-waste collectors. These particular businesses, in combination with the cancellation of community collection events such as planned textile and paper shredding recycling events that were cancelled due to public safety concerns, resulted in less overall material entering the recycling stream. With many offices and schools not operating throughout 2020, the demand for printing and writing paper was drastically reduced, which negatively impacted paper mills. As offices, restaurants and schools stay closed in the fourth quarter, and companies make long term plans for employees to work at home, the amount of commercial material entering the waste stream will likely continue to decrease.

Challenge # 2 – Focus on Quality

As reported in the prior Quarterly Recycling Report, the world of recycling abruptly changed in 2018 with the exit of China from the secondary materials export market. Enhanced quality is critical to ensuring reliable marketability in an oversupplied domestic system. The DEC recognized this reality with an enforcement discretion allowing increased residue to be disposed by MRF operators as an effort to enhance quality. The severe contraction of the economy in response to the necessary measures to control and contain the Covid-19 pandemic have further changed the demand for recycled commodities. Focusing on delivering targeted desirable high quality recovered material (such as cardboard and fiber to the local cardboard box manufacturer) is the most sustainable recycling solution. Commingled curbside recyclables has the potential to contaminate reliable and abundant recoverable fiber supplies.

Challenge #2 – Better than the Bin

As reported in the prior Quarterly Recycling Reports, capturing material upstream, at source separated locations, leads to successful high quality and reliable recycling in good and bad economic times. New York State's Returnable Container Act is incredibly successful in reducing litter and ensuring recycling of the glass, plastic and metal containers with a deposit. Glass is a known contaminant in a commingled recycling bin and is best captured for higher re-use through an expanded Returnable Container Act. OCRRA strongly supports the State's leadership in extending a deposit for wine and liquor bottles, which comprise over half of the glass material in a residential blue bin as reported in the [2019 Waste Characterization Study](#) (MSW Consultants, April 30, 2020). The Onondaga County Legislature as well as the Common Council of the City of Syracuse, the Towns of Van Buren and Camillus, have all enacted resolutions calling on New York State to expand the bottle bill to include wine and liquor bottles.

Challenge # 4 - Compost Scarcity

OCRRA's compost is made from locally provided food and yard waste. OCRRA previously (before Covid-19 related closures) received food waste from local university dining halls and school cafeterias. Covid-19 shutdowns have put a temporary stop to almost all of this incoming material and as a result, OCRRA predicts a shorter supply of available compost in 2021.

In closing, 2020 confirmed that recycling is an essential service that requires restructuring and reinvestment to better achieve its potential. Key take away messages for recycling in 2020 include:

- **Hope for recycling commodity markets is on the rebound.** As 2020 came to a close, commodity prices stopped their rapid decent and began to rise. OCC, mixed paper, aluminum, and natural HDPE values increased. The national average price for corrugated containers moved up 12% in December, and was higher at the end of 2020 compared to 2019. Mixed paper was up 14% to an average of \$32 per ton, and the last time the price for mixed paper was that high was October 2017.
- **Recovering materials from the waste stream is essential for our domestic supply chain and to support local businesses and manufacturers.** Beyond China's retreat in the global recycling market, the Covid-19 pandemic has had significant influence on the world of recycling. Key products made from recycled materials became even more critical this year, highlighting the importance of recycling as a key supply stream for manufacturing. Immediate investment in MRF technologies to reduce contamination and improve processing capability is critical.
- **Brand Owners need to be invested in the recovery and recycling of their products.** Extended Producer Responsibility is urgently needed to ensure materials are properly managed from production design to end of life, as municipalities cannot afford to cover the externalized costs of product manufactures any longer.

Additional information about OCRRA's 2020 recycling program are available in its quarterly recycling reports submitted to the NYS DEC. These reports are available online at: <https://ocrra.org/about-us/information/reports-and-policies/> From the fourth quarter 2020 report: