Onondaga County Resource Recovery Agency

2015 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, 2015 through December 31, 2015
Date: March 1, 2016
Planning Unit: **County of Onondaga** including the City of Syracuse, excluding the Town and Village of Skaneateles
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1. 2015 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 2015, **37,400 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 2015, over **550,000 tons** were recycled through mandatory and voluntary recycling efforts (both residential and commercial) in the community, for a **total recycling rate of 60%** (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 rate[1], by reaching 46%, or 231,262 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.

Maura Farrell of OCRRA, demonstrates recycling supplies offered to businesses to help implement and enhance a successful workplace recycling program.

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[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.

Table 1 shows the total recycling and trash generation for 2015 in OCRRA's service area. This total includes "voluntary recycling materials," meaning items that could not be otherwise processed at the Waste-to-Energy Facility such as yard waste, sludge, construction debris, etc. It is interesting to note 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 63%. Table 2 shows totals for "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. In Table 3, a breakdown of tonnage by material is displayed. Table 4 shows greenhouse gas emission equivalents avoided by recycling in Onondaga County in 2015.

Table 1 - 2015 Total Mandatory and Voluntary Recycling and Municipal Solid Waste		
Recycling	**Tons**	**Percent of Total Waste**
Curbside Recycling (Primarily Residential)	37,400	
Commercial Recycling (Primarily Business)	515,000	
Total Recycling	**552,400**	**60%**
Solid Waste		
OCRRA Municipal Solid Waste (MSW)	275,987	
Less MSW Ferrous & Nonferrous Recycling[1]	-9,314	
OCRRA Construction & Demolition Debris (C&D)	57,077	
Other Waste[2]	38,011	
Total Solid Waste	**361,761**	40%
Total Voluntary Recycling and Solid Waste:	**914,161**	

[1]Ferrous and nonferrous metals that are recovered from MSW at the Waste-to-Energy Facility and recycled are subtracted to avoid double counting.
[2]Includes biosolids currently being sent to a landfill.

Table 2 - 2015 Total Mandatory Recycling and Solid Waste[1]		
Processible[2] Recycling	**Tons**	**Percent**
Curbside Recycling (Primarily Residential)	37,400	
Processible Commercial (Primarily Business)	193,628	
Total Processible Recycling	**231,028**	**46%**
Municipal Solid Waste (MSW)		
OCRRA Municipal Solid Waste	275,987	
Less MSW Ferrous & Nonferrous Recycling[3]	-9,314	
Total MSW	**266,673**	54%
Total Mandatory Recycling and Solid Waste:	**497,701**	

[1]Sources 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.

[2]Processible materials are those which could have been disposed of at the Waste-to-Energy Facility.
[3]When calculating recycling rates, ferrous and nonferrous metals recovered from MSW at the Waste-to-Energy Facility are subtracted to avoid double counting.

Table 3 - 2015 Recycling By Material		
MATERIAL	**TONS[1]**	**PERCENT OF TOTAL[2]**
Organic Wastes (excluding Paper)		
Food	97,564	17%
Yard Waste	28,652	5%
Wood	3,732	1%
Textiles	1,445	0%
Total Organic	**131,393**	**23%**
Plastics	**8,352**	**2%**
Metal		
Ferrous Metals, except MSW Ferrous	110,906	20%
MSW Ferrous and MSW Non Ferrous	9,314	2%
Non Ferrous Metals, except Aluminum and MSW Non Ferrous	8,633	2%
Aluminum	851	0%
Total Metal	**129,704**	**24%**
Paper		
Corrugated Cardboard and Kraft Bags	86,050	15%
Newspapers and Magazines	19,055	3%
Office / Mixed Paper	93,051	16%
Books	314	0%
Total Paper	**198,470**	**34%**
Sludge	**45,292**	**8%**
Other		
Glass	9,440	2%
Special and Hazardous Wastes	816	0%
Electronics and Batteries	6,261	1%
Appliances	188	0%
Miscellaneous	21,317	4%
Total Other	**38,022**	**7%**
TOTAL	**551,233**	**100%**

[1]Data 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.
[2]Data 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 2015 has been calculated. In 2015, Onondaga County's recycling program **saved 1,039,988 metric tons of carbon dioxide equivalents** (MTCO$_2$E) from being emitted. This is equivalent to **taking about 200,000 passenger vehicles off the road**[2].

MATERIAL[1]	RECYCLING / COMPOSTING EMISSION FACTORS (MTCO2E per short ton)	COMBUSTION EMISSION FACTORS (MTCO2E per short ton)	DIFFERENCE	TONS RECYCLED/ COMPOSTED	GHG EMISSIONS MITIGATED (MTCO$_2$E)
Food	(0.15)	(0.12)	-0.03	97,564	-2,927
Yard Waste	(0.12)	(0.15)	0.03	28,652	860
Wood	(2.46)	(0.58)	(1.88)	3,732	-7,016
Mixed Plastics	(1.03)	(1.25)	-2.28	8,352	-19,043
Mixed Metals[3]	(4.38)	(0.99)	-3.39	129,704	-439,697
Corrugated Box	(3.12)	(0.48)	-2.64	86,050	-227,172
Magazines	(3.07)	(0.35)	-2.72	3,082	-8,383
Newspaper	(2.75)	(0.55)	-2.2	15,973	-35,141
Mixed Paper - Office	(3.53)	(0.49)	-3.04	93,051	-282,875
Book s[4]	(3.11)	(0.47)	-2.64	314	-829
Glass	(0.28)	(0.05)	-0.33	9,440	-3,115
Electronics/Batteries[5]	(2.51)	(0.17)	-2.34	6,261	-14,651
				TOTAL GHGs Mitigated	**-1,039,988**

Table 4 – 2015 Greenhouse Gas Emissions Avoidance

[1]Some materials recycled were not included in this analysis due to a lack of equivalent emission factors: Sludge, Special and Hazardous Waste, Textiles, and Miscellaneous.
[2]GHG avoidance factors are taken from the USEPA's WARM Model, Version 13.0, updated March 2015: http://epa.gov/epawaste/conserve/tools/warm/index.html. Factors are based on recycling / composting vs. combustion.
[3]Mixed Metals include: Ferrous Metals, MSW Ferrous, Non Ferrous Metals, MSW Non Ferrous, Aluminum, and Appliances.
[4]Emission factor for textbooks was used for books.
[5]Emission factor for personal computers was used for electronics/batteries.

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[2] Calculated using USEPA's Greenhouse Gas Equivalencies Calculator at http://www.epa.gov/cleanenergy/energy-resources/calculator.html

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
• 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)

Global Commodity Impacts

Numerous reports in 2015 highlighted how the recycling industry is struggling financially; prices on all commodities were down for several reasons, including falling oil prices, a strong US dollar and a weakened economy in China. [3] These global financial forces have sent prices for American recyclables plummeting worldwide. "Abundant oil is the latest headache for recyclers. New plastics are made from the byproducts of oil and gas production. So as plentiful fossil fuels saturate global markets, it has become cheaper for the makers of water bottles, yogurt containers and takeout boxes to simply buy new plastics, rather than recycled resins. This, in turn, is dragging down the price of recycled materials, straining every part of the recycling industry."[4] OCRRA is feeling the effects as well, as the Agency is getting paid less for its recovered cardboard (OCC) and scrap metal at the transfer stations.

"Our recycling business has dramatically changed, from a business we thought was going to grow very fast and very profitable, to one that is not growing at all and not profitable," said Mr. Steiner of Waste

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[3] http://www.theguardian.com/environment/2015/jun/27/recycling-unprofitable-oil-china-dollar
[4] http://www.nytimes.com/2016/02/13/business/energy-environment/skid-in-oil-prices-pulls-the-recycling-industry-down-with-it.html?_r=0

Management. "High commodity prices aren't coming back anytime soon. This may be the new normal."[5] The "Operation Green Fence", might be considered the new normal as well. In 2013 China initiated strict quality control measures upon scrap importers because they were being sent bales of recyclables that were contaminated with dirty recyclables and garbage. Though China is not inspecting every single bale the bar has been raised and demand for high quality bales will continue to stay.

Metal prices were significantly down as well. By the end of 2015, OCRRA was receiving 81% less revenue for the scrap metal it recovered as compared to the end of 2014. The price for scrap metals are tied to production and use of steel and other metals. China is experiencing an economic slowdown which is negatively impacting demand of steel and the scrap metal pricing.[6]

There are significant costs to processing curbside recyclables. However, the general public perception is that recycling is "free" and that some governmental or private sector entity is generating net positive revenue from processing and marketing these materials. The reality is that recycling has a cost, just like composting has a cost; material recovery facilities (MRFs) represent multi-million dollar capital investments; there are significant operating expenses, including, labor, maintenance, transportation, insurance, etc. Ideally, the MRF will generate sufficient revenues marketing the recyclables to cover its processing costs and make a reasonable profit. This is a financial challenge with the currently depressed commodity markets. Some MRF's have contracts in place where they get all the reward from market prices but also suffer all the risk. In some of those cases, the MRF's have ceased operations entirely or temporarily closed because they were not able to continue processing recyclables at a loss. The contract OCRRA has with the local private sector Waste Management MRF to process curbside recyclable materials shares the risk and the reward so that the community's award winning recycling program remains stable even under fluctuating market conditions.

[5] http://www.nytimes.com/2016/02/13/business/energy-environment/skid-in-oil-prices-pulls-the-recycling-industry-down-with-it.html?_r=0
[6] http://www.mprnews.org/story/2015/09/02/scarp-metal

Fiber Conditions

2015 year end values for OCC (cardboard) and ONP (newspaper) are down slightly compared 2014, as seen in Figure 1[7]. Figure 2[8] illustrates that OCC was in the $80 - $90 a ton range for 2015, and that ONP pricing was flat until December; at that time, both commodities declined slightly. Fluctuations in the commodity markets are difficult to predict from year to year.
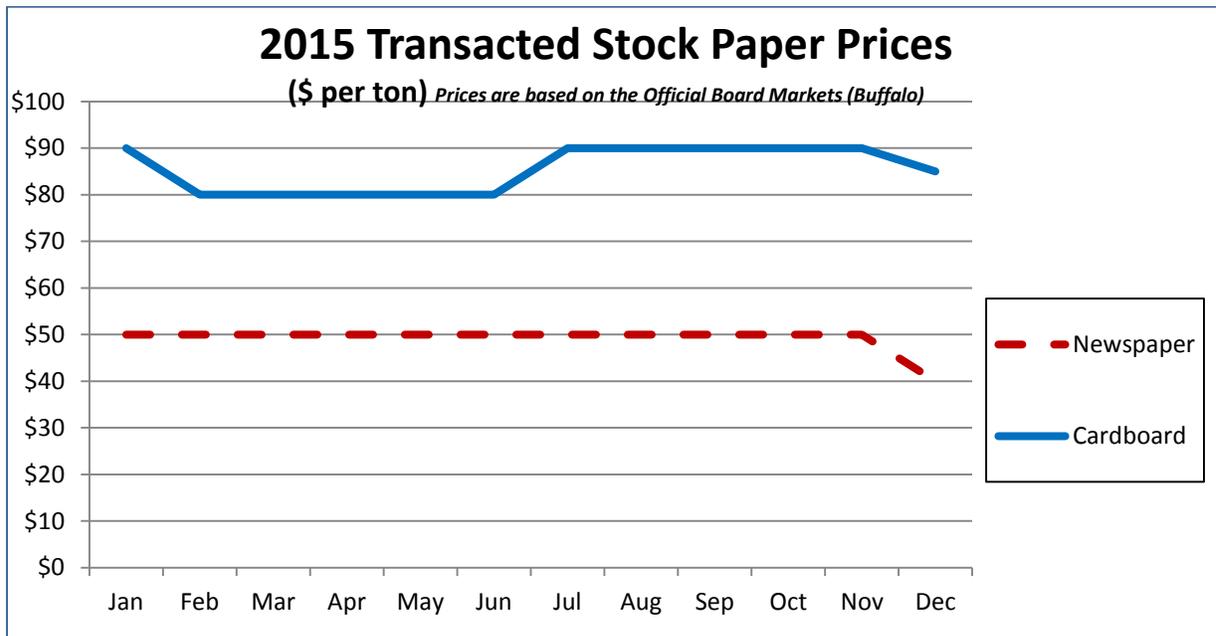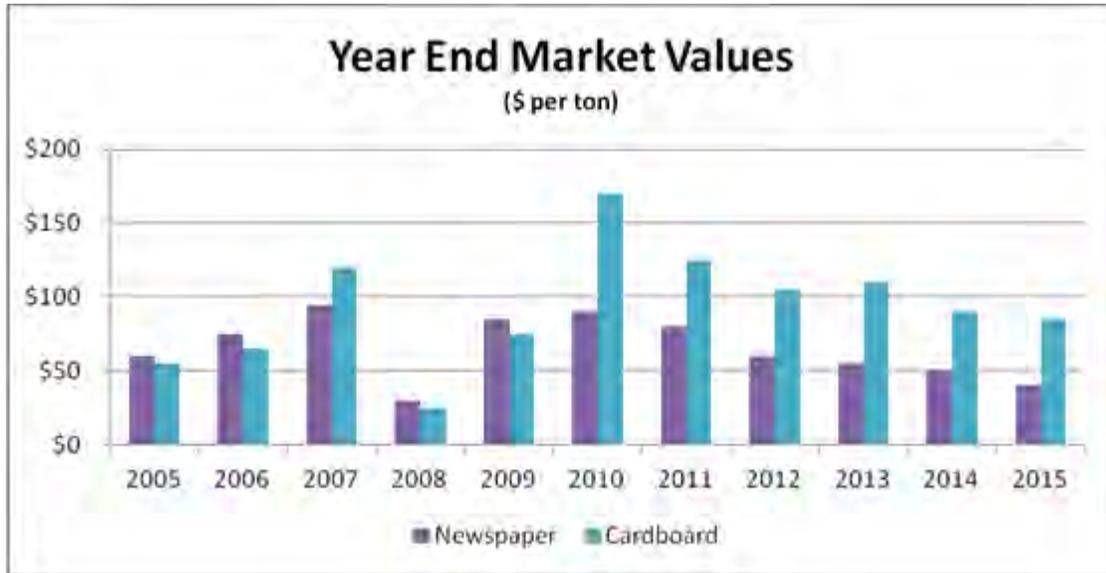

Figure 1

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[7] Market Values are from the Official Board Markets (Buffalo) in PPI Pulp & Paper Week.
[8] Paper Prices are from the Official Board Markets (Buffalo) in PPI Pulp & Paper Week.

Metals

The value of metal started to drop at the end of 2014 and this continued into 2015. This drop can be seen in the chart below.[9]
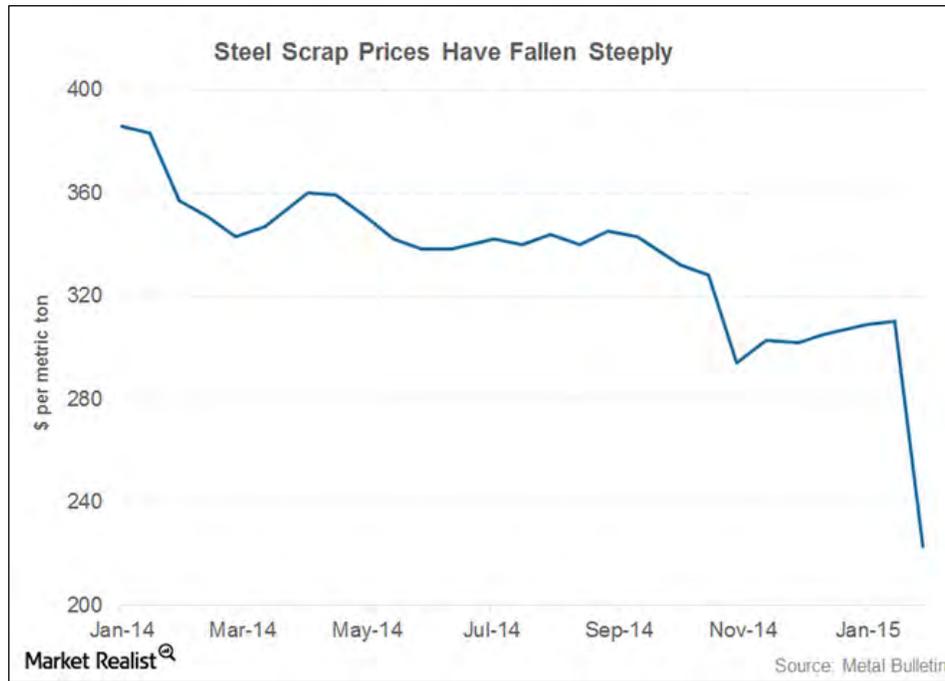
The price for scrap metals is tied to economic conditions that create new development. China is experiencing an economic slowdown which is effecting demand of steel and the scrap metal pricing.[10] The chart below illustrates how steel production has dropped in 2015.[11] Until demand increase prices will stay down.

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[9] http://marketrealist.com/2015/02/steel-scrap-prices-fallen-sharply-2015/
[10] http://www.mprnews.org/story/2015/09/02/scarp-metal
[11] http://www.postmetalrecycling.com/2015/12/23/2015-scrap-prices/
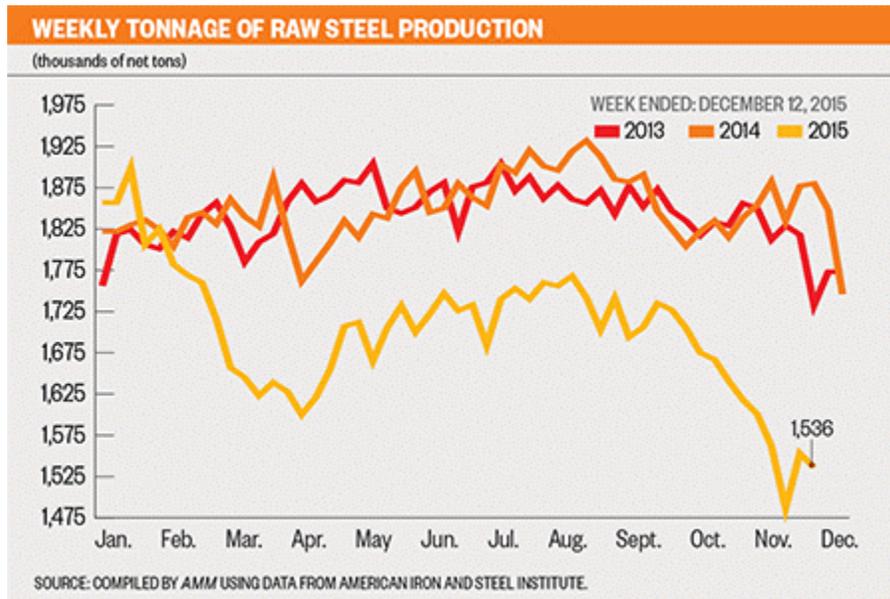
Glass

Based on OCRRA's last Waste Qualification and Characterization Study conducted in 2005, glass accounts for 1% of the municipal solid waste and 8.1% of the items in the blue bin by weight. Blue bin glass is commonly referred to as MRF glass. This glass is filled with small bits of metal, plastic and paper contamination at the end of the sorting process. Glass has to be fully cleaned and sorted at a glass processor in order to be recycled; there are no longer any MRF glass processors in NYS. Glass is highly destructive on equipment and MRF glass has little or no value as virgin sources for glass are readily available at comparatively far less cost.

Currently, there is a shortage of recycling markets for glass in New York State. This is a trend nationally as well. "Bottle Bill" glass has a steady market, MRF glass does not. "Bottle Bill" glass is pre-sorted when taken back for deposit and therefore easier to recycle. The glass from the Onondaga County MRF goes to a landfill to be reused as daily cover or for temporary roads. This use does save significant natural resources by avoiding the use of tens of thousands of cubic yards of top soil.

Plastics

Globally, the price of oil dropped at the end of 2014 and has stayed down through 2015; the drop in gas prices might be good for consumer spending but it is not great news for recycled plastics. For processors and manufacturers, once the price of polyethylene resin drops so low that it gets close to the recycled price, manufactures choose to use virgin resin as a feed stock. There is usually a higher output from using virgin resin than recycled plastic. As long as oil prices are down the demand for recycled plastics will stay down as well.

In 2015, post-consumer natural high-density polyethylene (HDPE) fluctuated several times. Since October 2015 it has been on the rise. (See graph below).[12]

Natural HDPE (Post Consumer)
National Average Price (cents per pound)

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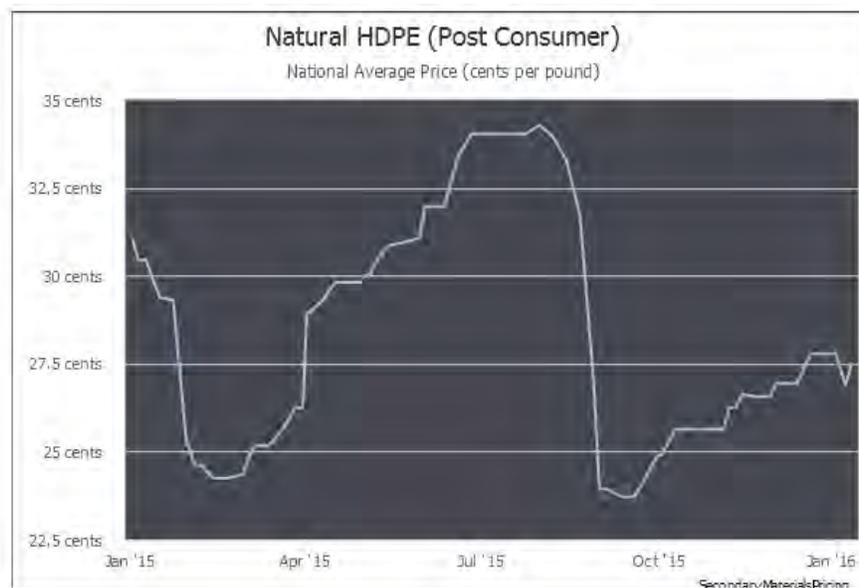
12 http://waste360.com/commodities-pricing/post-consumer-recyclable-materials-prices-continue-roller-coaster-ride?NL=WST-03&Issue=WST-03_20151211_WST-03_595&sfvc4enews=42&cl=article_4&utm_rid=CPEQW000001139921&utm_campaign=6309&utm_medium=email&elq2=ea1d681829b04be4a43e7b9edda438e7

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. This contract reduces OCRRA's annual risk in connection with payments to the MRFs for material processing, potentially generates income for OCRRA under favorable market conditions, 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. The contract also encourages stability in the local market for recyclables by reducing the variation in global market demand and pricing. This uniformity helps facilitate the successful education and enthusiastic cooperation of the public.

Under the 2015 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 old corrugated cardboard (OCC) and old newspaper (ONP). Consistent weighted average prices below $60/ton would require a payment from OCRRA; market prices above $100/ton would require a payment to OCRRA from the MRF. The values for cardboard and newspaper were down for 2015 and that resulted in payments to the MRF. That payment of $73,727 is reflected in Table 6 below.

TABLE 6 – TOTAL MRF PAYMENTS	
2005	$74,727
2006	$68,668
2007	($66,820)
2008	($58,250)
2009	$158,106
2010	($37,256)
2011	($78,251)
2012	$36,006
2013	0
2014	($2,943)
2015	($73,727)

Over the course of the past 11 years, on a net average basis, OCRRA has paid some $1,840 annually for MRF processing services of residential curbside recyclables. On a net average unit cost basis, the Agency has paid $0.05/ton for processing some 440,000 tons of recyclables since 2005.

Emerging Trends

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

- The single most important factor has been the recent struggling economy and tightening of budgets nationwide, which caused consumers to buy less and many companies to scale back business – resulting in less material that required recycling.

- The decrease in newspaper and magazine use due to continued growth of online news options, resulting in fewer subscriptions and therefore fewer papers printed.[13] 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.[14]

- Plastic bags are being banned far and wide, 6 towns and villages have banned bags in New York State so far.[15]

- 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.[16] Governor Cumo's 2016 "State of the State" address indicated that organics separation legislation would be proposed in 2016.

- 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.

- All commodity values were down in 2015 and that trend is expected to continue into 2016 as well. "Most PET end users are predicting that the present market price range for this grade will continue through the rest of 2016."[17]

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[13] deThomas, D. The Shape of MRFs to Come. Resource Recycling, Dec 2011.

[14] http://waste360.com/blog/circular-file-less-less

[15] http://www.citizenscampaign.org/campaigns/plastic-bags.asp

[16] http://compostingcouncil.org/landfill-bans-on-organics/

[17] http://waste360.com/commodities-pricing/post-consumer-recyclable-materials-pricing-remains-unsteady?NL=WST-08&Issue=WST-08_20160225_WST-08_976&sfvc4enews=42&cl=article_1&utm_rid=CPEQW000002124514&utm_campaign=6827&utm_medium=email&elq2=69598d7f74304f51a6c77fcaf5a35900

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.

As seen in the GALLUP graph below, consumer spending is on the rise very slightly in recent years.[18]

January 4, 2016

U.S. Consumer Spending Averages $99 in December

By Rebecca Riffkin

Story Highlights

- Average spending increased $7 from November
- December 2015 average similar to December 2014 average
- Spending usually increases in December but drops in January

WASHINGTON, D.C. -- Americans' daily self-reports of spending averaged $99 in December, which is similar to the $98 average in December 2014. Along with the $96 average in December 2013, those are the highest averages for that month in Gallup's eight-year trend. December spending is usually the highest of any month each year, although the highest estimate for any month in Gallup's trend is $114 from May 2008.

Monthly Averages of Reported Amount Americans Spent "Yesterday"
2008 to 2015
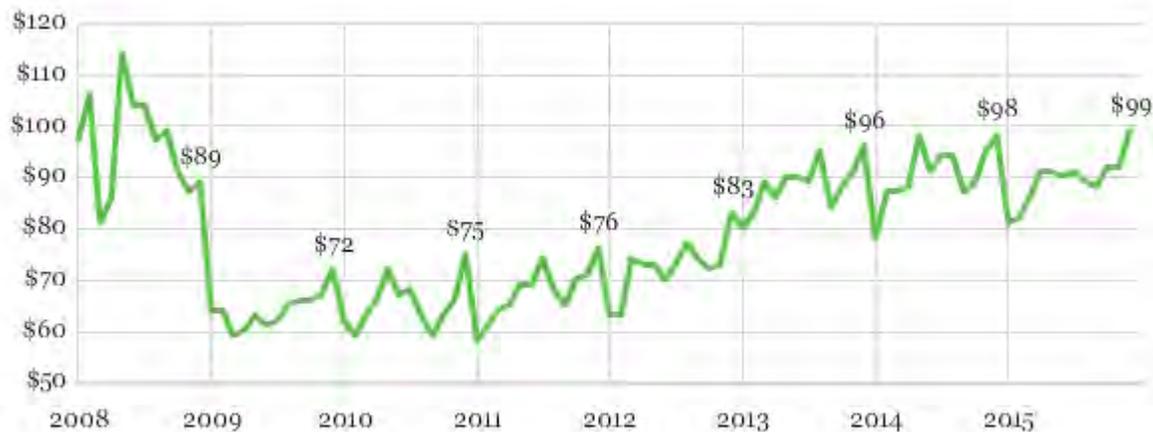
Usually more spending and purchasing would equate to more trash and recyclables created but all the above mentioned factors in waste reduction are still occurring. In addition, many communities are

pushing to increase composting and ban yard waste or food waste from the trash completely. Some waste minimization techniques such as backyard composting or leaving your leaves on your yard are hard to measure, but should be taken into account.

3. 2015 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. In 2015, over $605,000 in state grants were received: $41,754 for Household Hazardous Waste (HHW) collection expenses; $124,568 for compost development, and $438,708 for Blue Bin expenses (2009-2013).

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.

During 2015, OCRRA's Recycling Program managed:

- Two yard waste compost sites, open to the public from April to November;
- 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;
- Two "Shred-O-Rama" events, in which mobile shredding trucks shredded household confidential papers on-site;
- 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 2015 (unaudited) associated with the recycling services are as follows:

Table 7 –RECYCLING COSTS		
PROGRAM	2014 EXPENSE	2015 EXPENSE
Recycling Personnel *	$616,863	$677,498
Material Recovery Facility (MRF) Fees	$2943	$76,450
Public Education - Outside Service	$461,005	$461,541
Composting**	$379,731	$357,139
Household Hazardous Waste (HHW) Collection	$75,221	$85,381
Blue Bin Expense	$189,014	$126,068
Other Recycling Programs	$122,300	$115,249
Total Cost	$1,847,077	$1,899,326

*Includes all permanent compost personnel.

**Includes all temporary 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 2015, 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 2015, 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 fall of 2012, 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/shop/supply-order-form).

In addition to paid media advertising, OCRRA continues to publish its quarterly newsletter (see: https://ocrra.org/news-and-events/newsletters) 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 2015, 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.

<u>Apartment Recycling</u>

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 2015, OCRRA Recycling Specialists visited dozens of apartment complexes (over 80+ 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.

<u>Business Recycling</u>

OCRRA's Recycling Specialists regularly call on businesses in Onondaga County to help them design effective collection systems for recyclables. During 2015, OCRRA continued to provide free consultations, as well as free containers and decals to all types of businesses, over 250 in total.

Business can access a wide variety of information on OCRRA's website (https://ocrra.org/how-do-i/recycle/recycle-at-work#how-to-recycle-more) 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 2015, businesses recycled over 193,000 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. To date, there are over 65 certified Blue Ribbon Recyclers in Onondaga County.

<u>Recycling at Schools</u>

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 100 classroom presentations and assemblies for the 130 schools throughout the county in 2015. In addition, OCRRA gave out its annual Vonnell Mastri award in June, honoring a school with an excellent recycling program in the city of Syracuse. In 2015, the award went to the Expeditionary Learning Middle School in the City of Syracuse School District. An additional triumph of OCRRA's school outreach in 2015 was food scraps composting in the Westhill and Fayetteville-Manlius School Districts, becoming the next school districts in Onondaga County to separate food scraps for OCRRA's large-scale compost efforts.
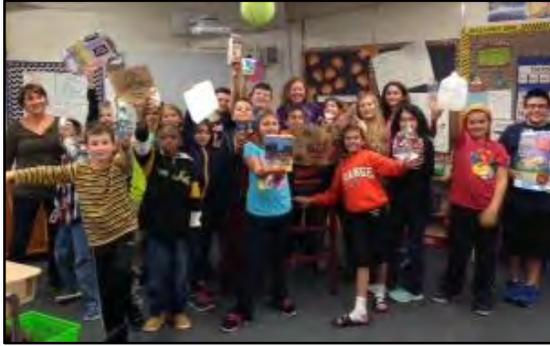
2015 debuted the implementation of OCRRA's new interactive, digital online education program. This web-based program includes a series of professionally-produced videos, interactive games and curriculum-aligned classroom activities. Aimed at third through fifth graders, this program teaches students 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 50+ 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.

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 2014, the data acquired from this most recent study is 9 years old. More up-to-date information would be invaluable for further program evaluation; OCRRA continues to consider its ability to devote resources to planning and executing another large-scale Waste Quantification & Classification.

Figure 3
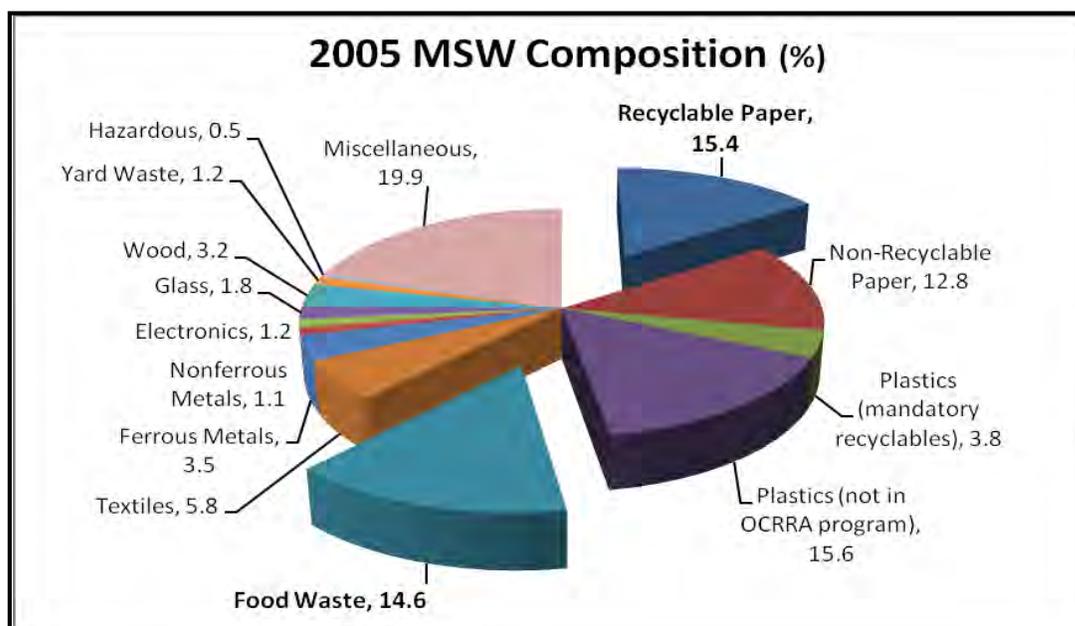
5. Highlights of the 2015 OCRRA Recycling Program

Again in 2015, 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:

- Over $605,000 in state grants received in 2015: $41,754 for Household Hazardous Waste (HHW) collection expenses; $124,568 for compost development, and $438,708 for Blue Bin expenses (2009-2013).

- OCRRA received a 2015 Environmental Education Excellence Award from the Interactive Media Council (IMC) for the agency's web-based, classroom video series. IMC is a national nonprofit organization of leading web designers, developers, advertisers and other web-related professionals. The video series is accessible at: https://ocrra.org/educational_resources

- OCRRA continued to urge state legislators to pass legislation supporting Extended Producer Responsibility, including resolution no. 1940, supporting a manufacturer-funded and managed paint recovery program; a paint stewardship bill passed unanimously in the NYS Senate in 2015, and is making its way through the Assembly.

- Compost revenues grew 30% compared to 2014 (and increased100% vs. 2012), approaching $500,000. Nearly 3,000 tons of food scraps composted in 2015, a 50% increase over 2014. Bagged compost sales grew over 30% vs. 2014. Additional schools now participating in food scrap recovery include Fayetteville-Manlius and Westhill (joining Marcellus and Jordan Elbridge).

- OCRRA's Earth Day Litter Clean Up was held on Friday, April 24, and Saturday, April 25. Over 7,400 volunteers from some 340 groups participated; 100,000 + pounds of litter collected; nearly 2.4 million pounds of litter collected since 2003; one of the largest Earth Day litter collection events in the country.

- Major alkaline battery manufacturers, including Energizer and Duracell, again selected OCRRA as one of only five "Foundation Programs" in the country, paying OCRRA's cost to transport and recycle over 100,000 pounds of alkaline batteries (annual cost savings of $70,000).

- OCRRA again played a leadership role in a statewide textile recovery campaign (over 1.4 billion pounds of textiles trashed in NYS annually with a market value exceeding $200 million); statewide campaign received EPA Region 2 Environmental Excellence Award; OCRRA's local textile collection event at DestinyUSA in November netted over 12,000 pounds of clothes and textiles for the Rescue Mission and Salvation Army; a first-time collaboration between the two organizations.

- OCRRA partnered with Covanta to host a mercury collection event on October 5th. Thanks to resident participation, over 461 thermometers (47% increase over 2014) and 168 thermostats (44% increase over 2014) were collected! This amounts to approximately 956 grams of mercury being removed from the environment, which is comparable to recycling 239,300 compact fluorescent light bulbs. Residents can recycle mercury thermometers and thermostats year-round at OCRRA's Rock Cut Road Drop-Off Site (and get a $5 Home Depot Gift Card from Covanta and / or a replacement thermometer).

- OCRRA established a new two-year agreement for MRF services with Waste Management that establishes reasonable financial risk during current period of depressed commodity markets for recyclables and continues to guarantee a zero tip fee to haulers.

- OCRRA Recycling Director Andrew Radin was recognized by the New York State Association for Reduction, Reuse and Recycling with its "Lifetime Achievement Award."

- OCRRA Recycling Specialist Theresa Mandery received an Outstanding Service Award from GreeningUSA, a not for profit organization that advocates for sustainable communities to the benefit of local economies and environments.

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 2015, 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 3,000 tons of total food scraps.

2015 brought growth to the Food Waste Composting Program with the addition of SRC, a local research and development corporation, and the Fayetteville-Manlius and Westhill School Districts among others. OCRRA is currently processing over 115,000 lbs of institutional and commercial food scraps weekly (a 50% increase over 2014).

Included in this total is food waste from:
- Core
- Crouse Hospital (Sodexo)
- Destiny USA, including 25+ food service locations
- Empire Brewing Company

- Jordan-Elbridge Central School District (Chartwell Services)
- Fayetteville-Manlius School District
- Giovanni Food Company, Inc.

- LeMoyne College (Sodexo)
- Marcellus Central School District
- Onondaga Community College
- Pastabilities Restaurant
- Paul deLima Coffee
- Ramada Inn
- 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 Oncenter
- Wegmans, includes 8 CNY stores

In 2015, 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, NYS DEC 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 7,500 cubic yards of compost and mulch in 2015. 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 20+ local retail establishments throughout the community. In 2015, bagged compost sales grew over 30% from 2014, with the sale of roughly 5,750 total bags.

As in previous years, OCRRA's finished compost was available for residents to take home as part of the Residential Pass Program. In 2015, the "Residential Pass Program" enabled residents to purchase compost passes for $20, which allowed them to drop off an unlimited amount of yard waste and take away up to 6 cubic yards of compost. In 2015, a new "combo pass" was introduced to residents to allow for drop-off of residential food scraps at the compost sites in addition to yard waste. In 2015, residents purchased over 3,800 compost passes and made over 31,000 visits to both compost sites, this was an increase of 8% from 2014. Additionally, there were over 4,000 commercial and municipal drop-offs throughout the 2015 season. OCRRA again in 2015 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 2015, over 70 tons were kept out of the trash, including over 7,000 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 demonstrates OCRRA's annual alkaline battery collection in July.)*

As a result of its innovative residential battery collection program, OCRRA was again invited to serve as a "Foundation Program" by the Battery Recycling Corporation (BRC) in 2015, one of only a handful of communities across the country invited by the BRC to do so. As a result of this public / private partnership, BRC covered the expenses to transport and recycle the thousands of pounds of household alkaline batteries that the Agency collected. The partnership is continuing in 2016, and is aimed at ultimately developing "best practices" for a nationwide collection system managed by alkaline battery manufacturers. More information about OCRRA's battery collection program is available online at: https://ocrra.org/resource-pages/resource-page-category/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 15,000 lamps were collected in 2015 at these stores. Further information about this environmental program is available online at: https://ocrra.org/resource-pages/resource-page-category/fluorescent-bulbs

Household Hazardous Waste

In 2015, 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 to OCRRA are included the fee charged by the vendor based on the amount of Hazardous Waste brought in by the resident. In 2015, approximately 1,600 residents took advantage of this drop-off program (which is about a 10% increase in participation from 2014).

Mercury Thermometer/stat Exchange Program

OCRRA continued its mercury thermometer exchange and thermostat collection program at the Rock Cut Road Transfer Station in 2015. OCRRA partners with Covanta Energy to provide residents with non-mercury thermometers in exchange for their old mercury thermometers. Over 500 residents brought in 800 thermometers and thermostats for recycling in 2015. The resident participation from this one collection event alone contributed to the removal of approximately 790 grams of mercury from the environment, which is comparable to recycling 197,750 compact fluorescent light bulbs. 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 two annual Shred-O-Rama events in 2015 at NBT Stadium in Syracuse. Over 1,600 residents attended the two events, and dropped off 32 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 400 tons of paper has been shredded and recycled.

Textile Collection

On America Recycles Day, November 15, 2015, over 250 local residents joined OCRRA and dropped off over **13,600 pounds of clothing and textiles** at a collection event conducted at the 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.

This local drop off was in connection with a statewide textile recovery campaign organized by the New York State Association for Reduction, Reuse and Recycling (NYSAR3) to raise public awareness of the issue of textile recovery. Each year, over 1.4 billion pounds of textiles are trashed across New York State, with an economic value (loss) of over $200 million; in Onondaga County, 20 million pounds are trashed annually with a market value of $3 million. More information about the statewide textile recovery campaign is available online at: http://www.nysar3.org/page/clothes-the-loop-ny---home-78.html.

Non-Profit Recycling Incentive Program for Local Charities

In 2015, OCRRA again provided a "recycling credit" to the local Rescue Mission and Salvation Army 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 2015, OCRRA credited these organizations with approximately $17,600.

Extended Producer Responsibility

OCRRA has been involved in many Extended Producer Responsibility (EPR) initiatives in the last few years. 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. The OCRRA Board passed two resolutions in 2015; one urging NYS legislators to amend the existing e-waste recovery law, and the second urging state elected officials to pass a paint stewardship bill.

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 300 million pounds of e-waste have been collected from across New York State.

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. Manufacturers of alkaline batteries have also recently proposed a model EPR bill in some states that would provide for recovery of these "primary" batteries by such manufacturers as Energizer and Duracell. Such legislation has not yet been introduced in the New York State Legislature.

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. In the future, OCRRA hopes to see further discussion of New York State EPR laws, particularly for paint, pharmaceuticals and fluorescent bulbs.

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 are 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

Community Events and Public Outreach

OCRRA is committed to maintaining high levels of community participation through its recycling program. In 2015, OCRRA's recycling team participated in numerous area events and fairs, including the Taste of Westcott Street (for Syracuse University students), Huntington Family Center Picnic (for Syracuse's Near Westside residents), 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 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 with the community by presenting at various conferences in 2015, including the annual Federation of NY Solid Waste Associations 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 2015, **over 7,400 volunteers from community groups participated; collecting 100,000+ 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 the Bayberry Community in Syracuse area.)*

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 of Recycling, Reduction and Reuse (NYSAR[3]).

6. Benchmark of Local Recycling Rate

It is important to evaluate where the OCRRA service area stands when comparing recycling rates to counties of a similar size, as well as "green" cities such as Portland and Seattle, and to state and national rates. The table below illustrates benchmark comparison using 2012 data. Getting up-to-date information from these communities is a continuous challenge, but OCRRA intends to update with post-2012 data in next year's 2016 recycling report. It should be noted that the rates for Portland and Seattle are only for the cities and not their respective counties, as that data was not available.

TABLE 8 - 2012 Processible Recycling Rates* Comparison		
Planning Unit	Recycling Rate	Population
OCRRA	46%[19]	467,500
NYS Average Recycling Rate (2010)	36.6%[20]	19,500,000
US Average Recycling Rate	34.5%[21]	313,000,000

* Table 8 shows totals for the processible recycling rate, as defined by NYSDEC, considering 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 unacceptable at the Waste-to-Energy facility.

TABLE 9 - 2012 Total Recycling Rates** Comparison		
Planning Unit	Recycling Rate	Population
OCRRA	60%[22]	467,500
Portland, Oregon	64%[23]	603,650
Seattle, Washington	56%[24]	650,000
Westchester County, NY	60%[25]	960,000

** Table 9 illustrates trash and recycling generation in the OCRRA service area. In addition to municipal solid waste, this includes yard waste, sludges, C&D, etc. (i.e. materials that cannot be processed at the Waste-to-Energy facility)

The way that recycling rates are calculated varies by state and region. Some areas call it a diversion rate and include Waste to Energy. Some are only measuring MSW, while others include all garbage including C&D. The rates may include or exclude various items such as ash or sludge. Those listed above are included to provide a reasonable measure of how our community's recycling program compares to other recycling programs. Best efforts were made to include rates that were comparable.

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[19] http://ocrra.org/app/webroot/img/gallery/File/downloads/aboutocrra/reports/Annual_Reports/AnnualReport_2012_051713.pdf

[20] As Provided by NYSDEC. 2010 is the most recent year for the recycling data that the NYS DEC could provide.

[21] http://www.epa.gov/waste/nonhaz/municipal/pubs/2012_msw_fs.pdf

[22] http://ocrra.org/app/webroot/img/gallery/File/downloads/aboutocrra/reports/Annual_Reports/AnnualReport_2012_051713.pdf

[23] http://www.portlandoregon.gov/bps/article/496027

[24] http://www.seattle.gov/util/groups/public/@spu/@garbage/documents/webcontent/01_026636.pdf

[25] http://environment.westchestergov.com/images/stories/pdfs/2012AnnualReportDEF.pdf