

Onondaga County Resource Recovery Agency

2013 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, 2013 through December 31, 2013

Date: March 1, 2014

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

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1. 2013 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. First operational in 1990, OCRRA has overseen the recycling of over 12 million tons of material.

In 2013, **38,436 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 460,000.

In 2013, over **575,000 tons** were recycled through mandatory and voluntary recycling (both residential and commercial) in the community, **for a total recycling rate of 62%** (see Table 1). OCRRA also met permitting requirements for the Waste-to-Energy facility set forth by the NYSDEC to maintain a 40% processible recycling rate¹, by reaching 47%, or 236,931 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.



In 2013, Pastabilites became one of OCRRA's latest food waste recyclers in addition to all 8 local Wegmans locations.

Table 1 shows recycling and trash generation for 2013 in OCRRA's service area. Table 2 shows totals for

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.

“processable materials,” which are materials that could have otherwise been disposed of at the Waste-to-Energy facility. In Table 3, a breakdown of tonnage by material is displayed. Table 4 shows greenhouse gas emission equivalents that were avoided by recycling in Onondaga County in 2013.

Table 1 - 2013 Recycling and Solid Waste		
Recycling	Tons	Percent of Total Waste
Curbside Recycling (Primarily Residential)	38,436	
Commercial Recycling (Primarily Business)	536,635	
Total Recycling	575,071	62%
Solid Waste		
Incoming Municipal Solid Waste (MSW)	270,910	
Less MSW Ferrous & Nonferrous Recycling ¹	-8,365	
Incoming Construction & Demolition Debris (C&D)	54,212	
Incoming Other Waste ²	33,556	
Total Solid Waste	350,313	38%
Total Recycling and Solid Waste	925,384	

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

²Includes biosolids currently being sent to a landfill.

Table 2 - 2013 Processible Recycling and Municipal Solid Waste¹		
Processible² Recycling	Tons	Percent
Curbside Recycling (Primarily Residential)	38,436	
Processible Commercial (Primarily Business)	198,496	
Total Processible Recycling	236,932	47%
Municipal Solid Waste (MSW)		
Incoming Municipal Solid Waste	270,910	
Less MSW Ferrous & Nonferrous Recycling ³	-8,365	
Total MSW	262,545	53%
Total Processible Recycling and Solid Waste	499,477	

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 - 2013 Recycling By Material		
MATERIAL	TONS¹	PERCENT OF TOTAL²
Organic Wastes (excluding Paper)		
Food	96,499	18%
Yard Waste	54,041	11%
Wood	4,558	1%
Textiles	4,686	1%
Total Organic	159,785	31%
Plastics		
	9,032	1%
Metal		
Ferrous Metals, except MSW Ferrous	96,747	17%
MSW Ferrous and MSW Non Ferrous	8,365	2%
Non Ferrous Metals, except Aluminum and MSW Non Ferrous	19,267	4%
Aluminum	17,122	3%
Total Metal	141,502	26%
Paper		
Corrugated Cardboard and Kraft Bags	111,026	19%
Newspapers and Magazines	27,081	0%
Office / Mixed Paper	50,469	9%
Books	292	0%
Total Paper	188,869	28%
Sludge		
	60,217	11%
Other		
Glass	7,075	1%
Special and Hazardous Wastes	-	0%
Electronics and Batteries	9,566	2%
Appliances	465	0%
Miscellaneous	6,073	1%
Total Other	23,179	4%
TOTAL	582,584	100%

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

²Data may not equal 100% due to rounding.

Greenhouse Gas Avoidance

Recycling has many environmental benefits, including resource and energy savings due to avoidance of using virgin materials. The USEPA provides its WARM Model to allow users to determine the amount of greenhouse gases (GHGs) saved due to recycling or composting. In the table below, the GHG emissions avoided for materials recycled in Onondaga County in 2013 has been calculated. In 2013, Onondaga County's recycling program saved **949,256 metric tons of carbon dioxide equivalents (MTCO₂E)** from being emitted. This is equivalent to **taking about 200,000 passenger vehicles off the road²**.

Table 4 – 2013 Greenhouse Gas Emissions Avoidance

MATERIAL¹	RECYCLING/COMPOSTING EMISSION FACTORS (MTCO₂E per short ton)	COMBUSTION EMISSION FACTORS (MTCO₂E per short ton)	DIFFERENCE	TONS RECYCLED/COMPOSTED	GHG EMISSIONS MITIGATED (MTCO₂E)
Food	0.2	0.12	0.08	96,499	-7,446
Yard Waste	0.2	0.15	0.05	54,041	-2,362
Wood	2.46	0.58	1.88	4,558	-8,548
Mixed Plastics	0.98	1.25	-0.27	9,032	-20,190
Mixed Metals ³	3.97	1.06	2.91	141,997	-414,346
Corrugated Box	3.11	0.48	2.63	111,026	-291,562
Magazines	3.07	0.35	2.72	6,950	-18,939
Newspaper	2.78	0.55	2.23	20,132	-44,833
Mixed Paper - Office	3.59	0.44	3.15	50,469	-159,055
Books	2.65	0.55	2.1	292	-612
Glass	0.28	0.05	0.23	7,075	-2,289
Electronics/Batteries	2.35	0.17	2.18	9,566	-20,865
TOTAL GHGs Mitigated					-991,046

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

²GHG avoidance factors are taken from the USEPA's WARM Model, Version 12.0:

http://www.epa.gov/climatechange/wyacd/waste/calculators/Warm_home.html. Factors are based on recycling / composting vs. combustion.

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

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

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

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

Discussion

Curbside recycling (residential) for Onondaga County in 2013, at 38,436 tons was some 208 tons higher than 2012 (38,227). Commercial and business recycling, at 575,071 tons, is approximately 23,321 tons higher than 2012 (note: commercial data are reported voluntarily and are sometimes estimated; therefore, data are not necessarily statistically precise).

Although Onondaga County’s recycling saw modest gains in 2013, there are multiple factors that can contribute to a reduction 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.³ Not only is the amount of papers printed decreasing, but so is the actual size of newspapers. There are less pages printed due to less advertising (because of a loss in readership), as well as a drop in classified pages as more people use online sites to sell items, services or search for jobs.
- While our use of plastic products has increased by 25 percent in the last 11 years, they have replaced heavier products,⁴ such as swapping out glass jars for plastic to save on shipping costs. This caused a reduction in trash tonnage overall.
- “Thinwalling” is also a global trend, where the materials used to create certain packaging, such as plastic water bottles, aluminum cans, and fiber packaging, including corrugated cardboard, are thinner and therefore weigh less. On an aggregated basis, the “loss” in material is significant.

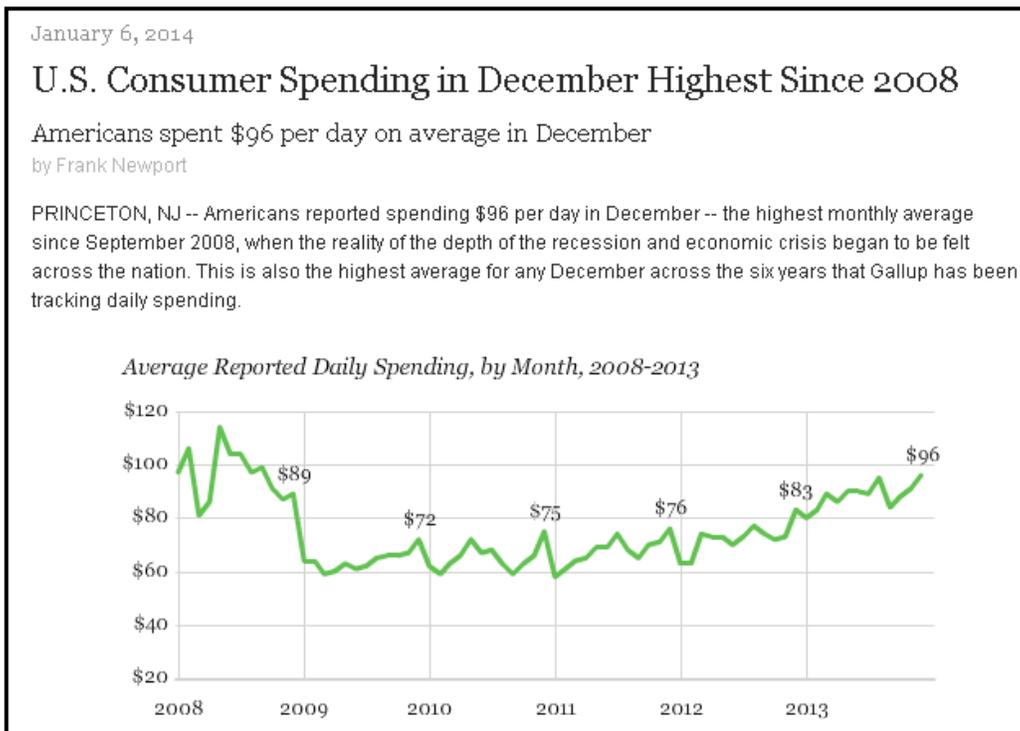
³ deThomas, D. The Shape of MRFs to Come. Resource Recycling, Dec 2011.

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

- 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. Think of all the products that replaces, not only in our homes but in the waste stream.⁵

These trends result in less material generated that could ultimately be recycled. 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 and approaching 2008 levels.⁶ Usually more spending and purchasing would equate to more trash created but all the above mentioned factors in waste reduction are still occurring. Add to that the push in many communities 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.



However, despite these factors, total recycling increased 1% from 2012 to 62% in 2013. This is quite an achievement, especially when facing such challenging economic circumstances and demonstrates that the residents of Onondaga County make recycling a priority even during tough economic times.

2. 2013 Recycling Program Costs and Market Trends

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.

⁵ <http://waste360.com/blog/circular-file-less-less>

⁶ <http://www.gallup.com/poll/166742/consumer-spending-december-highest-2008.aspx>

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 government and private 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.

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 and household batteries.

During 2013, 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;
- ❁ A new Monday-Friday Household Hazardous Waste (HHW) collection program;
- ❁ 2 “Shred-O-Rama’s”, are now offered, where mobile shredding trucks shredded household confidential papers on-site;
- ❁ Year-long battery collection at local drop-off points and a curbside collection in July;
- ❁ A mercury thermometer and thermostat exchange program;
- ❁ A compost bin and rain barrel sale; and
- ❁ Special services and programs for businesses, schools and apartment building managers and owners.

Direct program costs in 2013 (unaudited) associated with the recycling services are as follows:

Table 6 –RECYCLING COSTS		
PROGRAM	2012 EXPENSE	2013 EXPENSE
Recycling Personnel *	\$531,581	\$556,960
Material Recovery Facility (MRF) Fees	\$36,006	\$0
Public Education - Outside Service	\$598,058	\$315,415
Composting**	\$214,494	\$234,800
Household Hazardous Waste (HHW) Collection	\$141,272	\$55,804
Blue Bin Expense	\$225,692	\$143,523
Other Recycling Programs	\$93,762	\$101,066
Total Cost	\$1,840,865	\$1,407,568

*Includes all permanent compost personnel.

**Includes all temporary personnel.

MRF Contract

Blue bin recyclables are collected at the 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. Two private local MRFs signed on to the new long-term contract. This contract reduces OCRRA’s annual risk in connection with payments to the MRFs for material processing, potentially generates income for the Agency under favorable market conditions, and

provides certainty and stability for the community’s recycling system during commodity market lows. As a result of OCRRA’s contract, the MRFs accept residential recyclables at no charge to the waste haulers.

OCRRA provides a measure of financial support, depending on market commodity prices, to the MRFs to ensure a zero tip fee for residential recyclable haulers. Each year, the contracted MRFs pay OCRRA for residential recyclables processed, with agreed upon upper limits, which are used to cover a small portion of the costs for recycling outreach and education. Apart from the so-called “public education fee” that the MRFs pay OCRRA, other payments may be made from the MRFs to OCRRA, or from OCRRA to the MRFs, depending on the market prices of old corrugated cardboard (OCC) and old newspaper (ONP): consistent average prices below \$60/ton may require a payment from OCRRA; market prices above \$100/ton may require a payment to OCRRA from the MRFs. As a result of relatively stable market values for OCC and ONP in 2013 (see Figure 1), zero payments were made to the MRFs or to OCRRA in 2013, as seen on Table 7 below.

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 recyclable commodities by attenuating the variation in global market demand and pricing. This uniformity helps facilitate the successful education and enthusiastic cooperation of the public.

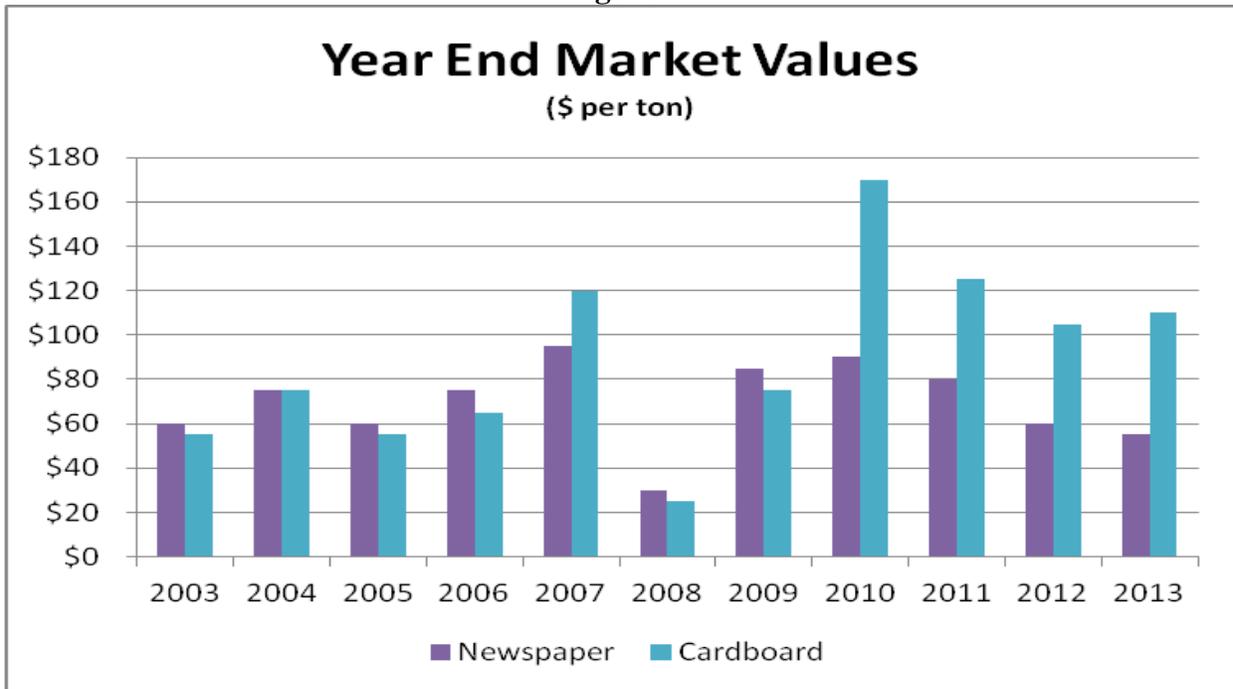
In July of 2013, one of the locally operated private MRF’s, Syracuse Recycling and Recovery, suffered and fire and is no longer in operation. Currently, it is unknown if Syracuse Recycling and Recovery will reestablish operations in Onondaga County. The other private MRF, Recycle America, has accepted the recyclable materials that were being processed at Syracuse Recycling and Recovery. As a part of the MRF contract they are required to accept residential materials from any hauler for a zero tip fee.

TABLE 7 – TOTAL MRF PAYMENTS	
2004	\$19,804
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

Market Conditions

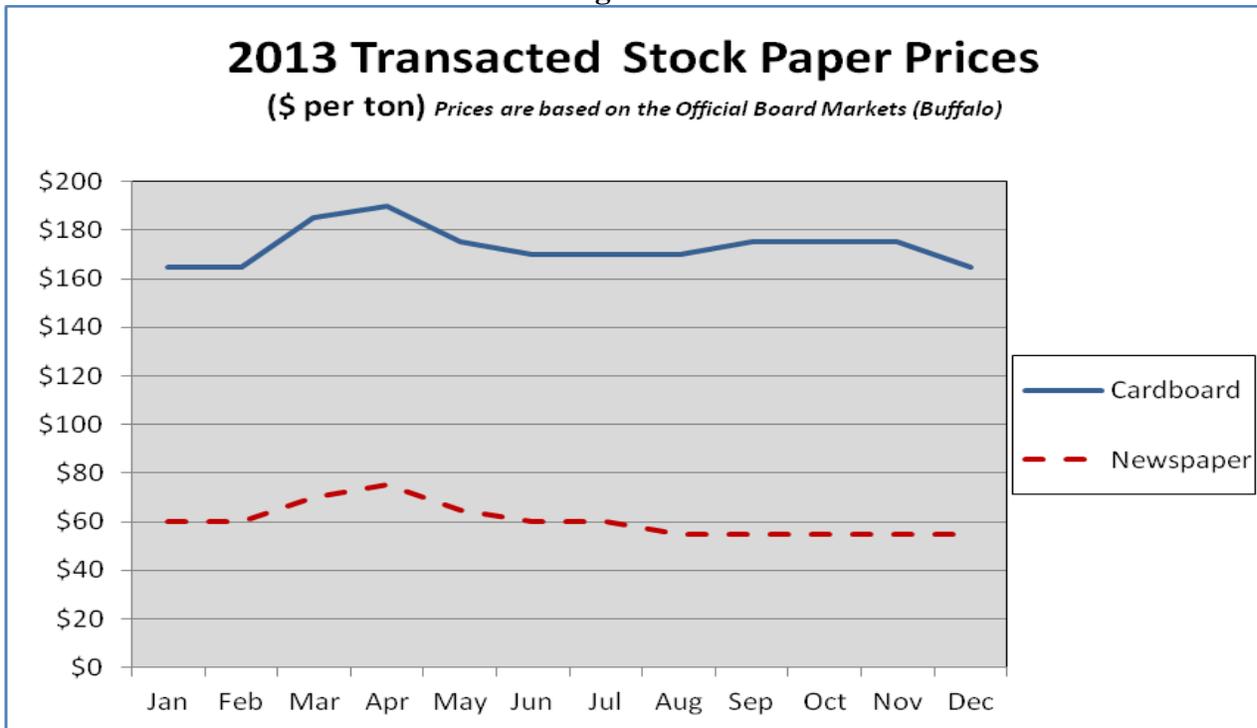
2013 year end values for OCC and ONP for 2013 are similar to those from 2012, as seen in Figure 1. Fluctuations in the commodity markets are difficult to predict from year to year. In 2013, prices for OCC and ONP fluctuated only slightly in March and April (see Figure 2). According to RISI Recovered Paper analyst Hannah Zhao, in the next two years, pricing at US mills for OCC is expected to rise almost 50%. Zhao expects the 2013; national average of \$110 for US mills to rise to a \$135 average in 2014 and a \$146 average in 2015. The OCC and ONP market projections that will be closely tracked by OCRRA.

Figure 1



Please see footnote 7

Figure 2



Please see footnote 8

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

LOCAL COMMODITY IMPACTS

The Syracuse Post Standard reduced the printing of the daily newspaper to 3 days a week effective February 2nd 2013. Also in spring 2013, the Scotsman PennySaver ceased production. With these 2 changes in 2013 there has been a decrease in newsprint available to be recycled, estimated by OCRRA at 2,000 – 3,000 tons. OCRRA’s recycling team aims to offset this impact by its continuing effort to increase all recycling, including commercially generated cardboard and office paper, and recyclables generated in schools and apartment complexes.

GLOBAL COMMODITY IMPACTS

Global commodity market developments continue to impact domestic recycling conditions. The most significant global market event that affected recycling nationwide in 2013 was “Operation Green Fence,” which was China’s way of cracking down on imported materials for recycling. China initiated strict quality control measures upon scrap importers, because they were being sent bales of recyclables that were heavy with dirty recyclables and garbage. Those items have to be sorted out and then become China’s garbage.

China’s ban on “low quality” bales of recyclables impacted some recycling facilities in other parts of the country that were forced to improve their material sorting efforts and therefore lower their percentage of contamination. Some recycling facilities stopped accepting some items due to a lack of market demand; the Southern Oregon Aspire Recycling Center no longer takes a range of materials, including clear plastic clamshell containers used for packaging, blue propylene hospital gowns and colored plastic bags.⁹

It’s important to mention that OCRRA does not accept clamshells, hospital gowns or plastic bags in our recycling program. OCRRA is very particular in what it decides should become a mandatory recyclable. If there is not a sustainable, viable, long-term market for those items then they will not become a new blue bin item. This prevents the Agency from having to “remove” items from the blue bin program. The problems that other areas such as Oregon are having are not likely to occur here because of OCRRA’s careful recycling decisions.

China’s “Operation Green Fence,” and the opening of a new fiber mill in New York, is partly responsible for cardboard exports to China being down in 2013. China's share of US OCC falls to 25% last year, with exports down 928,000 tons according to PPI Pulp & Paper Week.¹⁰ This is not all bad news according to Plastics News; the Green Fence is opening up opportunities for some U.S. plastics recyclers, saying this levels the playing field and legitimate recyclers applaud this and won’t be affected because they were always playing by the rules.¹¹ Cardboard in Onondaga County is shipped to RockTenn in Solvay, NY, for recycling/processing into liner board for new boxes.

⁹ <http://www.dailytidings.com/apps/pbcs.dll/article?AID=/20130819/NEWS02/308190303/-1/NEWSMAP>

¹⁰ <http://www.risiinfo.com/content-gateway/marketprices/news/Recovered-Paper-Chinas-share-of-US-OCC-falls-to-25-last-year-with-exports-down-928000-tons.html>

¹¹ <http://www.plasticsnews.com/article/20130712/NEWS/130719975/us-based-recyclers-may-gain-from-chinas-green-fence>

3. Public Education, Program Outreach and Enforcement

OCRRA continues to use a system of public education and outreach 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 2013, the Recycling Specialists visited hundreds of local businesses, apartment complexes and schools to offer assistance in designing recycling programs as well as to offer free recycling containers and decals. OCRRA's Recycling Aide assists the Recycling Specialists with regular duties, as well as attends community events to represent OCRRA.

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 cooperation. 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 will visit any waste generator 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 events.

To keep the public abreast of the recycling program, OCRRA continued its extensive public communication program throughout 2013, investing resources into direct public education through TV, web and print media.

An advertisement for hazardous waste disposal. On the left, there are images of a white can of 'paint thinner' and a white spray bottle labeled 'PEST'. Below these images, text reads: 'Now you can drop off your hazardous household waste MONDAY through FRIDAY by appointment'. On the right, text reads: 'Learn more about hazardous waste disposal at' followed by the OCRRA logo and 'org'.

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. In addition, 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, and inform the public about specific recyclable materials. OCRRA distributed the newsletter as an insert in the Onondaga County Eagle Newspaper and by the Syracuse Media Group in the Sunday Post-Standard, which reached over 110,000 people on a quarterly basis. About 5,000 newsletters each quarter reach the public via public libraries, government offices (village and town clerks) and special events as well.

Perhaps one of OCRRA's most effective means of communication is via email. Through a web-based system, emails covering various recycling topics and upcoming events are sent twice a month to approximately 7,000 people. In addition to the main 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](#), allowing people to actively engage in discussion about recycling and OCRRA's services. New information about upcoming special events, highlights of local recycling and waste reduction achievements, and links to recycling-related news articles are posted on a regular basis.



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

Apartment Recycling

Onondaga County has hundreds of multi-unit apartment buildings, which present a unique set of challenges to recycling, such as space constraints and inconvenient recycling bin locations. To assist residents in 2013, OCRRA Recycling Specialists visited dozens of apartment complexes and spoke with numerous landlords and property managers to ensure that proper recycling occurred. To help facilitate a great recycling system, OCRRA provided brochures, magnets, decals and special containers, as well as presentations at group meetings.

Business Recycling

OCRRA's Recycling Specialists regularly call on businesses in Onondaga County to help them design effective collection systems for recyclables. During 2013, OCRRA continued to provide free consultations, as well as free containers and decals to all types of businesses.



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 2013, businesses recycled over 198,000 tons of "processable" materials (municipal solid waste that can be processed at the Waste to Energy facility).

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 65 certified Blue Ribbon Recyclers.



OCRRA also annually presents Recycler of the Year awards, based upon a further evaluation of businesses and organizations in Onondaga County that were certified as Blue Ribbon Recyclers. **OCRRA presented the 2013 Recycler of the Year award to ACR Health in Syracuse.** (see photo, at right). ACR has implemented numerous green initiatives that include purchasing recycled paper products, eliminating Styrofoam products from the workplace; and adding certified green cleaning products for custodial use.



Recycling at Schools

Schools generate a significant portion of the recyclables in a community, in the form of paper, cardboard and containers. Because of this and the importance of educating children early about recycling, schools are always a major focus of OCRRA's public education. Recycling Specialists regularly visit school custodians, teachers and administrators to help with design and improvement of their recycling programs. OCRRA's Recycling Specialists provided over 80 presentations and assemblies for the 150 schools throughout the county in 2013. 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 2013, the award went to Lemoyne Elementary in the City of Syracuse School District (see photo below).

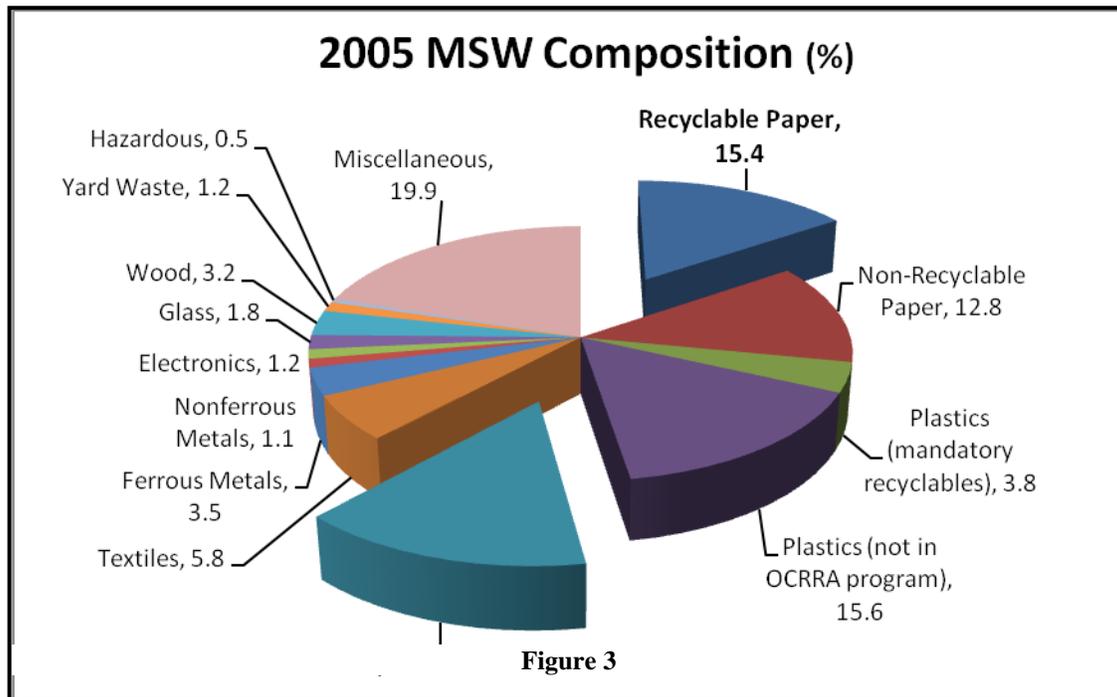


2005 Waste Quantification & Classification

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 2013, the data acquired from this most recent study is 8 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.



4. Highlights of the 2013 OCRRA Recycling Program

Again in 2013, 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:

- Completion of facility and operational upgrades at Amboy Compost Site to accept increased quantities of food scraps.
- Continued high-profile advertising campaign communicating benefits of the OCRRA system.
- Presented Recycler of the Year award to ARC Health.
- Received a \$64,159 grant from the NY DEC for Household Hazardous Waste Collection costs.
- Sold over 6,700 cubic yards of compost and 5,300 cubic yards of mulch; in total, generated revenue exceeding \$270,595; a 10% increase from 2012’s revenues. Total Revenues are up 382% for the six year period of 2008 to 2013
- Recycling team visited over 70 local apartment complexes, over 80 schools and over 180 local businesses to maintain, improve or establish recycling programs.
- Saving over \$8,000 in alkaline battery transport and disposal costs through partnership with national battery manufacturers association; one of only five such programs in the country.
- Collected over 8,200 fluorescent lamps (over 2 tons) as part of partnership with local Ace and True Value hardware stores; over 48,000 lamps (15 tons) collected since '07 launch.
- Over 5,500 volunteers collected over 99,000 pounds of litter as part of OCRRA’s annual Earth Day Clean Up program; over 2 million pounds of litter collected since 1994!

- Presented the Vonnell Mastri Recycling Award to Lemoyne Elementary.
- Served over 1,300 residents with household hazardous waste collection services (now Monday-Friday).
- Presented with the Robert D. McAuliffe Community Service Award by ARC of Onondaga
- Received the Call2Recycle Leader in Sustainability Award
- A successful rain barrel and compost bin sale that drew hundreds of people.

➤ **YARD AND FOOD WASTE COMPOSTING – OCRRA Expands Amboy Food Compost Site**

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 2013, OCRRA’s plans to develop the Amboy Compost Site into a “state-of-the art” food and yard waste composting facility became a reality. The NYS DEC approved OCRRA’s plans and issued the permit for development and operation on January 28th, 2013. The construction process took over six months, running from May through November, which was the height of composting season. During that period, OCRRA invested over \$2 million in to the project which is designed to ultimately process over 9,000 tons of institutional and commercial food waste annually.

2013 also brought growth to the Food Waste Composting Program with the addition of 8 local Wegmans grocery stores, the Marcellus School District and Pastabilities, a local restaurant. In 2013, over 1800 tons of commercial food wastes were processed at OCRRA’s Amboy site (vs. 750 tons in 2012). OCRRA is currently processing over 50,000 lbs of institutional and commercial food scraps weekly.

Included in this total is food waste from:

- | | |
|---|---|
| <ul style="list-style-type: none"> • Syracuse University • Onondaga Community College • Le Moyne College • OnCenter • Ramada Inn • Paul De Lima Coffee • St. Camillus Senior Living Center • Marcellus School District • University Sheraton • SUNY Upstate Med. Center | <ul style="list-style-type: none"> • Syracuse Banana • Byrne Dairy / Ultra Dairy • Community General Hospital • Destiny USA • All 8 local Wegmans stores • Pastabilites |
|---|---|



In 2013, OCRRA continued to be members of 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 it was used in many “Green Infrastructure” projects across the State, with a prominent use on the Rosamond Gifford Zoo, Save the Rain, green roof and wetlands project.

The Jamesville Compost Site processed approximately 16,000 cubic yards of yard waste and another 22,000 cubic yards of wood waste in 2013. Both of OCRRA's compost sites were able to offer convenient service for residents, municipal and commercial entities to drop-off yard waste from April to November, with the addition of year-round service for food waste generators and commercial customers.

As in previous years, OCRRA's finished compost was available for residents to take home as part of the Residential Pass Program. The "Residential Pass Program" enables residents to purchase compost passes for \$15, which allows them to drop off an unlimited amount of yard waste and take away up to 6 cubic yards of compost. In 2013, residents purchased over 3,900 compost passes and made over 28,000 visits to both compost sites, this was an increase of over 1,500 visits from 2012. In addition, there were over 2,000 commercial and municipal drop-offs throughout the 2013 season. OCRRA again in 2013 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.



OCRRA's New Static Aerated Compost Pile System at Amboy, The largest Food Scrap Composting Facility in NYS.

➤ **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 2013, over 89 tons were kept out of the trash, including over 5,000 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.

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 2013, 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 2014, 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 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 8,200 bulbs were collected in 2013 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 DAYS



A major change was made in 2013 to the Household Hazardous Waste (HHW) collection model. In response to residents’ suggestions, OCRRA has made its popular Hazardous Waste Collection Program even more convenient. Instead of 3 Saturday events, OCRRA switched to a Monday-Friday drop –off at Environmental Products and Services of VT, Inc. (*see photo, left of a resident utilizing the new more convenient drop off*). 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 included the fee charged by the vendor based on the amount of Hazardous Waste brought in by the resident.

➤ MERCURY THERMOMETER AND THERMOSTAT EXCHANGE PROGRAM

OCRRA continued its mercury thermometer exchange and thermostat collection program at the Rock Cut Road Transfer Station in 2013. OCRRA partners with Onondaga County Department of Water Environment Protection and Covanta Energy to provide residents with non-mercury thermometers in exchange for their old mercury thermometers. Over 70 residents brought in over 160 thermometers and thermostats for recycling in 2013. 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 thermometers from escaping into the environment when the thermometers are 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 its annual Shred-O-Rama in 2013. For the second year in a row, two shredding events were held (in the spring and fall) at NBT Stadium in Syracuse. Over 3,200 residents attended the two events, and dropped off nearly 63 tons of confidential documents to be shredded. Paper was shredded on site and then recycled by Confidata.



➤ NON-PROFIT RECYCLING INCENTIVE PROGRAM FOR LOCAL CHARITIES

In 2013, OCRRA again provided a "recycling credit" to the local Rescue Mission, Salvation Army and Habitat for Humanity for each documented ton of material (clothing, furniture, etc.) recycled through their organizations. The organizations were credited toward their monthly waste disposal fees through the OCRRA system. In 2013, OCRRA credited these organizations with approximately \$16,000.

➤ 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.

New for 2013, New York passed a bill to require 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 bill also calls for 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 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. This law, which went into effect April 2011, is a release from the cost burden of handling and recycling the electronic waste stream for many municipalities.

Also in 2010, New York State adopted legislation to require the recycling of rechargeable batteries to be provided by the manufacturers, physically or financially. Beginning in late 2011, the [NYS Rechargeable Battery Recycling Act](#) banned the disposal of any rechargeable batteries in NYS. This new law means that manufacturers are providing outlets for recycling at all retail locations that sell rechargeable batteries at no charge to the consumer.

OCRRA 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, packaging and fluorescent bulbs.

➤ **COMMUNITY EVENTS AND PUBLIC OUTREACH**

OCRRA is committed to maintaining high levels of community participation through its recycling program. In 2013, 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), the Home & Garden Show and CNY Blooms. A variety of recycling 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 and neighborhood groups. These presentations all provided information about the recycling program, as well as the importance of environmental stewardship. *(At right: OCRRA performs a recycling presentation at the Green Lakes Environmental Field Days.)*



OCRRA Recycling Specialists also shared their expertise with the recycling community by presenting at various conferences in 2013, 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 2013, **over 5,500 volunteers collected over 99,000 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 left, Earth Day cleanup volunteers from Merrill Farms in Clay.)*

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 (NYSAR³).

➤ **RECYCLING RATE COMPARED TO SIMILAR COUNTIES IN NEW YORK**

The following table is based on data provided by the NYSDEC from 2011. 2011 data was the most recent data that the DEC could provide. The purpose of this data is to have a point of reference for our recycling rate as compared to counties with a similar population in NYS.

These Recycling Rates were calculated based on the amounts of metal, glass, paper and plastic recyclables plus yard waste collected by the community and the amount of waste disposed using the following formula: $\frac{\text{Recyclables} + \text{Yard Waste}}{\text{Disposed Waste} + \text{Recyclables} + \text{Yard Waste}}$.

TABLE 8 - 2011 Recycling Rate (per NYSDEC)		
Planning Unit	Recycling Rate	Population
Onondaga County Resource Recovery Agency	47%	467,026
Brookhaven (T)	33%	486,040
Oneida Herkimer Solid Waste Authority	31%	299,397
Oyster Bay (T)	30%	293,214
Westchester County	40%	949,113
Rockland County Solid Waste Management Authority	20%	311,687
Huntington (T)	27%	203,264
Hempstead (T)	15%	759,757
North Hempstead (T)	5%	226,322