

Onondaga County Resource Recovery Agency

2012 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, 2012 through December 31, 2012

Date: March 1, 2013

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

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1. 2012 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 2012, **38,227 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 2012, over **551,700 tons were recycled** through mandatory and voluntary recycling (both residential and commercial) in the community, **for a total recycling rate of 61%** (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 46%, or 228,073 tons (see Table 2).



In 2012, Koto, and over a dozen other restaurants at Destiny USA, sent over 10,000 pounds of food scraps per week to OCRRA's Amboy Compost Site, keeping hundreds of tons of organics out of the trash.

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

Table 1 shows all recycling and trash generation for 2012 in OCRRA's service area. Table 2 shows totals for processible materials, which are materials that could have otherwise been disposed of at the Waste-to-

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.

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 2012.

Table 1 - 2012 Recycling and Solid Waste			
	Tons	Percent of Total Waste	
Recycling			
Curbside Recycling (Primarily Residential)	38,227		
Commercial Recycling (Primarily Business)	513,522		
Total Recycling	551,749	61%	
Solid Waste			
Incoming Municipal Solid Waste (MSW)	268,124		
Less MSW Ferrous & Nonferrous Recycling ¹	(8,303)		
Incoming Construction & Demolition Debris (C&D)	55,898		
Incoming Other Waste ²	33,451		
Total Solid Waste	349,170	39%	
Total Recycling and Solid Waste		900,919	

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 - 2012 Processible Recycling and Municipal Solid Waste¹			
	Tons	Percent	
Processible² Recycling			
Curbside Recycling (Primarily Residential)	38,227		
Processible Commercial (Primarily Business)	189,846		
Total Processible Recycling	228,073	46%	
Municipal Solid Waste (MSW)			
Incoming Municipal Solid Waste	268,124		
Less MSW Ferrous & Nonferrous Recycling ³	(8,303)		
Total MSW	259,821	54%	
Total Processible Recycling and Solid Waste		487,894	

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 - 2012 Recycling By Material		
MATERIAL	TONS¹	PERCENT OF TOTAL²
Organic Wastes (excluding Paper)		
Food	92,125	17%
Yard Waste	38,559	7%
Wood	16,110	3%
Textiles	4,259	1%
Total Organic	151,053	27%
Plastics		
	7,388	1%
Metal		
Ferrous Metals, except MSW Ferrous	103,733	19%
MSW Ferrous and MSW Non Ferrous	8,303	2%
Non Ferrous Metals, except Aluminum and MSW Non Ferrous	10,876	2%
Aluminum	6,597	1%
Total Metal	129,509	23%
Paper		
Corrugated Cardboard and Kraft Bags	91,662	17%
Newspapers and Magazines	23,800	4%
Office / Mixed Paper	48,457	9%
Books	487	0.1%
Total Paper	164,406	30%
Sludge		
	57,837	10%
Other		
Glass	11,762	2%
Special and Hazardous Wastes	1,495	0.2%
Electronics and Batteries	6,521	1%
Appliances	595	0.1%
Miscellaneous	21,184	4%
Total Other	41,557	8%
TOTAL	551,750	100%

¹Data reporting is voluntary. 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 2012 has been calculated. In 2012, Onondaga County's recycling program saved **nearly 886,600 metric tons of carbon dioxide equivalents (MTCO₂E)** from being emitted. This is equivalent to **taking about 185,000 passenger vehicles off the road²**.

Table 4 – 2012 Greenhouse Gas Emissions Avoidance			
MATERIAL¹	RECYCLING / COMPOSTING vs. COMBUSTION EMISSION FACTORS² (MTCO₂E per short ton)	TONS RECYCLED/ COMPOSTED	GHG EMISSIONS MITIGATED (MTCO₂E)
Food	-0.2	92,125	-7,108
Yard Waste	-0.2	38,559	-1,686
Wood	-2.46	16,110	-30,212
Mixed Plastics	-.98	4,259	-9,520
Mixed Metals ³	-3.97	129,509	-377,906
Corrugated Box	-3.11	91,662	-240,710
Magazines	-3.07	2,945	-8,026
Newspaper	-2.78	17,690	-39,396
Mixed Paper - Office	-3.59	48,457	-152,713
Books	-3.11	487	-1,287
Glass	-0.28	11,762	-3,806
Electronics/Batteries	-2.35	6,521	-14,224
TOTAL GHGs Mitigated			-886,593

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

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
- Updates recycling enforcement with a consistent warning and fine structure, giving the law more strength than the previous version
- Requires haulers to provide recycling service
- 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, required of both residential and commercial entities.

Table 5 – OCRRA Mandated Recyclables
Residential and Commercial <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 2012, at 38,227 tons was some 467 tons higher than 2011 (37,760). Commercial and business recycling, at 551,700 tons, is approximately 3,800 tons higher than 2011 (note: commercial data are reported voluntarily and are sometimes estimated; therefore, data are not necessarily accurate). While these numbers are not significantly different from 2010, they are quite different from years past, where curbside recycling reached over 40,000 tons and commercial reached over 600,000 tons.

There are multiple factors that contribute to the losses from the early 2000’s, 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

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

to less advertising (because of a loss in readership), as well as a drop in classified pages as more people use online sites to sell items, services or search for jobs.

- “Thinwalling” 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.

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.**

Less consumer purchasing results in less packaging and fewer items being replaced that need to be disposed of or recycled – the material is simply not there to handle. Due to lackluster consumer spending, many businesses have also been reducing their outputs, which also result in less waste and recyclables generated than years past. These contributing factors are present in both residential and commercial sectors, resulting in less disposal.

Consumer spending over the last few years is slowly increasing, “but remains well below the \$106 (average per day) of February 2008.”⁴

March 1, 2013

U.S. Consumer Spending Flat in February

Spending stable across income groups

by Dennis Jacobe, Chief Economist

PRINCETON, NJ -- U.S. self-reported consumer spending was essentially flat in February (2013), averaging \$83 per day, compared with \$80 in January. Gallup's consumer spending measure is running at a higher level in early 2013 than has been the case over the past several years, but remains well below the \$106 of February 2008.

Trend in Self-Reported U.S. Average Daily Spending, Monthly Averages Since January 2008

Next, we'd like you to think about your spending yesterday, not counting the purchase of a home, motor vehicle, or your normal household bills. How much money did you spend or charge yesterday on all other types of purchases you may have made, such as at a store, restaurant, gas station, online, or elsewhere?



⁴ <http://www.gallup.com/poll/160754/consumer-spending-flat-february.aspx>

However, despite these factors, total recycling increased almost 3% from 2010 and Onondaga County residents and businesses maintained a consistent recycling rate of 61%. This is still 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. 2012 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.

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 2012, 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;
- ❁ Three Household Hazardous Waste (HHW) collection days;
- ❁ A “Shred-O-Rama”, 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 2012 (unaudited) associated with the recycling services are as follows:

Table 6 –RECYCLING COSTS		
PROGRAM	2011 EXPENSE	2012 EXPENSE
Recycling Personnel *	\$478,696	\$531,581
Material Recovery Facility (MRF) Fees	(\$66,303)	\$36,006
Public Education - Outside Service	\$383,224	\$598,058
Composting	\$216,670	\$214,494
Household Hazardous Waste (HHW) Collection	\$159,126	\$141,272
Blue Bin Expense	\$157,682	\$225,692
Other Recycling Programs	\$104,962	\$93,762
Total Cost	\$1,434,057	\$1,845,865

*Includes all Recycling and Temp Composting personnel.

“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).

MRF Contract

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. Market prices for OCC and ONP were steady for the beginning of 2012, but both dropped in late summer and started to recover at the end of the year, (Figure 2). OCRRA paid the MRFs a sum of \$36,066 in 2012, and received \$78,251 from the MRF’s in 2011 (Table 7).

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.

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

Market Conditions

Fluctuations in the commodity markets are difficult to predict from year to year. As seen in Table 7, 2010 and 2011 saw favorable market conditions for recyclable commodities (payments were made by the MRFs to OCRRA). In 2012 prices for OCC and ONP dropped in July and started to recover in December (see Figure 2). In June 2012 the Official Board Markets publication (OCC Price Malaise Continues, 2012), reported that many Chinese paper mills had a high inventory and were getting offers from material brokers for more OCC than they could store and process. An August 2012 Waste Age article indicated that all commodity values, including old newspaper and corrugated cardboard, were down; the depressed pricing was attributed to China’s slowing economy (Waste Age Magazine, Fickes, August 2012).

Over the last several years, about two of every three tons of recovered paper exported went to China; that share has been rising recently to 70%. Nearly 90% of the total old corrugated cardboard exports went to China (83%) and India (5.6%) (WMRA ACQUIRES GREENSTAR, 2013). **The outlook for commodity values in 2013 is “good” as the Chinese markets are buying fiber once again, though uncertainty will continue as China controls a substantial share of the commodity market for recycled fiber, and whenever their inventories are full, they can reduce their dependence on imports.**

In 2012, year-end market values for OCC and ONP, shown in Figure 1, were down from 2011 but nowhere near 2008’s market lows. **“Newsprint consumption is now down 50.6% in one decade, comparing 2000 with 2011. Despite a small uptick in the recovery *rate* of newspapers, the amount of newspaper tonnage that is being recovered is down 37.9% or 4.2 million tons since 2006. When the 2012 numbers are calculated, it is certain that the declines will be quite a bit steeper.”** (Refkin, 2012).

This is related to local events as **the Syracuse Post Standard will reduce the printing of the daily Newspaper to 3 days a week effective February 2nd 2013. OCRRA estimates that this reduction of 4 days of newspapers will not significantly affect the processible recycling which is required by NYDEC to be 40% or higher** (as defined by NYSDEC, the processible recycling rate considers only those materials that could have otherwise been disposed of at the Waste-to-Energy Facility). This is because the paper has been getting smaller every year and does not comprise as much of the recycling stream as it did in 2005 at the time of OCRRA’s last Waste Quantification and Composition study at which time it made up 42% of blue bin material. Additionally it is anticipated that the 3 remaining newspaper days will be thicker due to added content, and total MSW is flat to down.

Figure 1

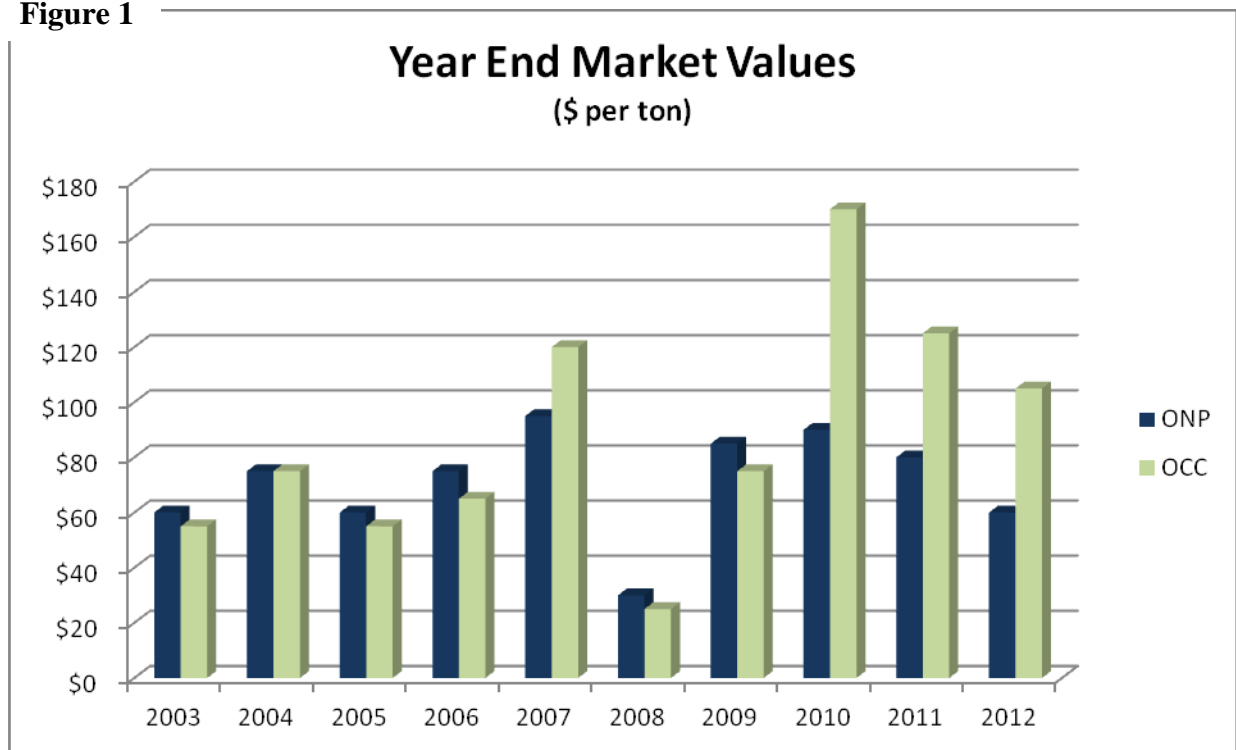
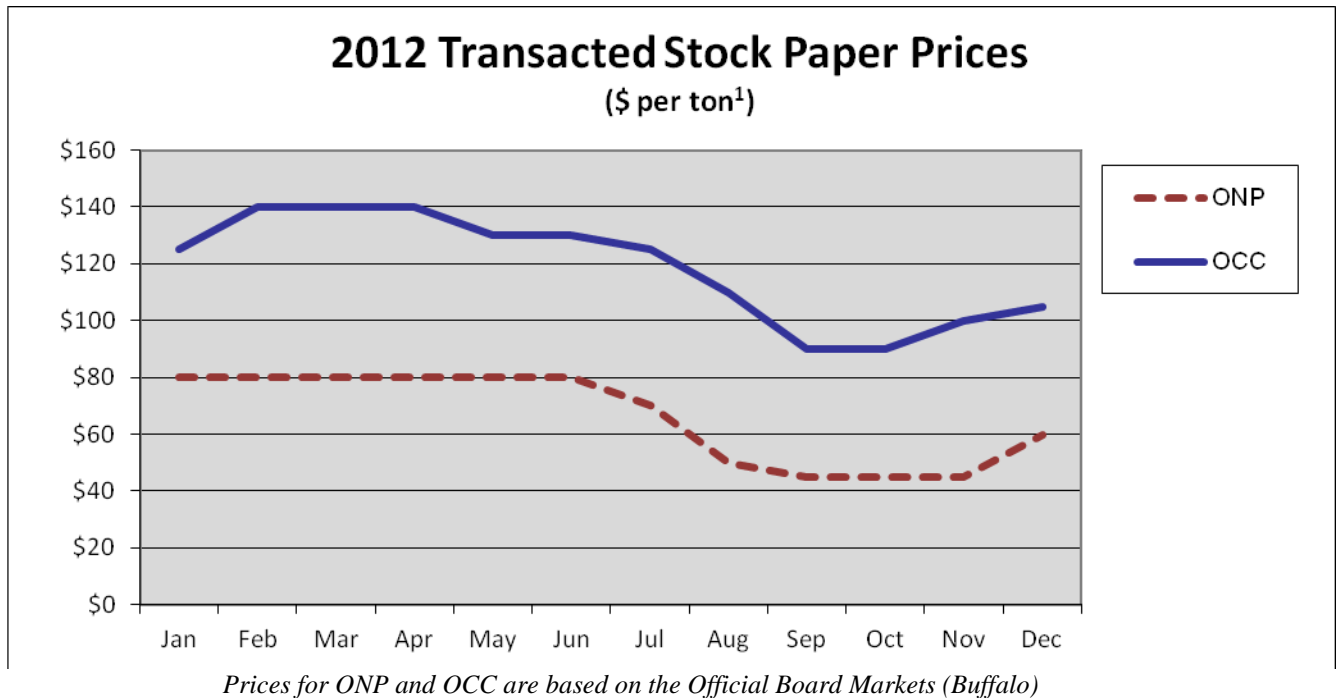


Figure 2



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 2012, 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. Two Recycling Aides assist the Recycling Specialists with regular duties, as well as attend community events to represent OCRRA. In addition, OCRRA has a contract with a New York State certified teacher, who spoke to more than 12,000 local students in over 500 classes during the 2011-2012 school year.

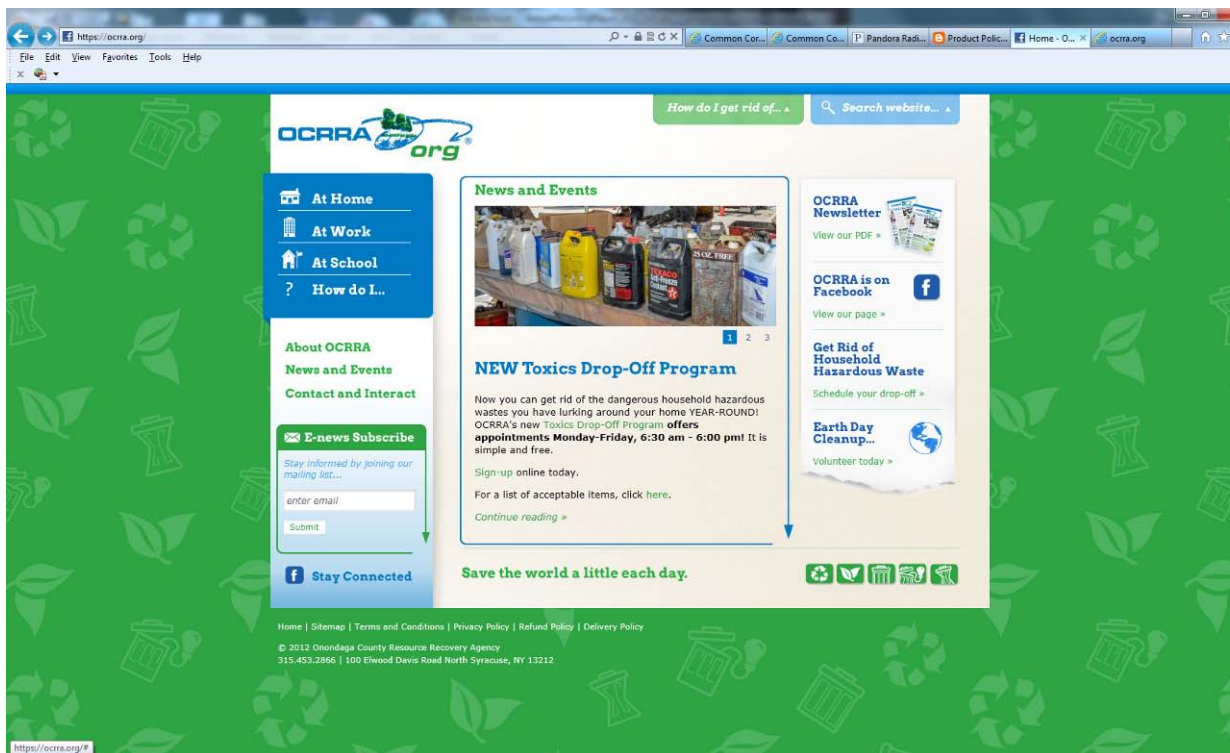
When needed, OCRRA Enforcement Officers supplement the efforts of the Recycling Specialists. An enforcement officer calls on businesses and apartment buildings when it is determined that other approaches have not resulted in cooperation. Each enforcement officer spends a significant portion of the week 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 2012. 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.

In 2012, OCRRA continued to invest resources into direct public education through TV, web and print media. 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.



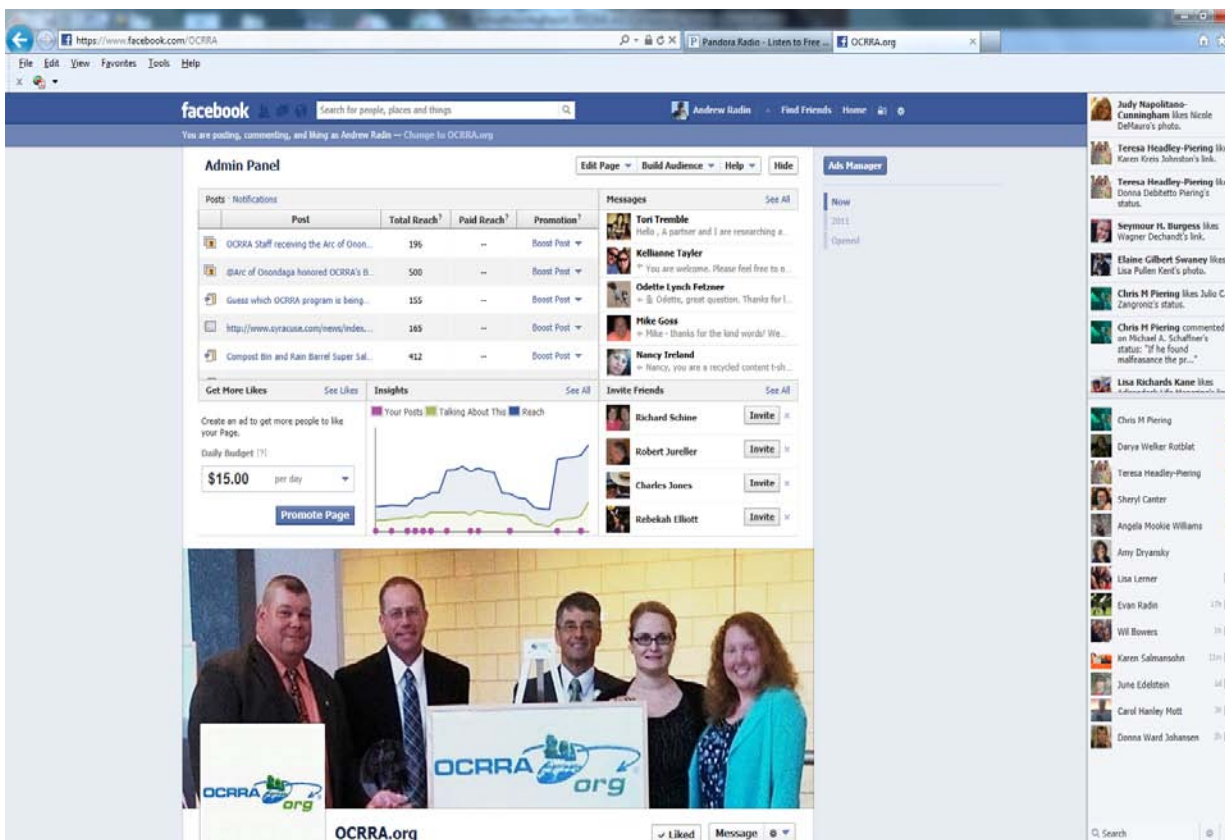
In 2012, OCRRA launched a revamped website at www.OCRRA.org, with enhanced features for searching reuse/recycling/reduction tips for a wide variety of materials.



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 local Pennysaver, which reached over 151,000 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 11,000 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 2012, 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. *(At right: Apartment resident Patty Ellis uses her special OCRRA apartment bin to drop off recyclables in her building's trash and recycling room.)*



Business Recycling

OCRRA's Recycling Specialists regularly call on businesses in Onondaga County to help them design effective collection systems for recyclables. During 2012, 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 2012, businesses recycled some 190,000 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 61 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 2012 Recycler of the Year award to Destiny USA** (see photo, right). Among their waste reduction achievements: composting thousands of pounds of food scraps weekly through the OCRRA system.



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 Educator and Recycling Specialists provided over 600 presentations and assemblies for the 150 schools throughout the county in 2012. 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 2012, the award went to two schools; the Seymour Dual Language Learning Academy in the City of Syracuse School District (see photo below, left), and the Syracuse Academy of Science Charter School (see photo below, right).



2005 Waste Quantification & Classification

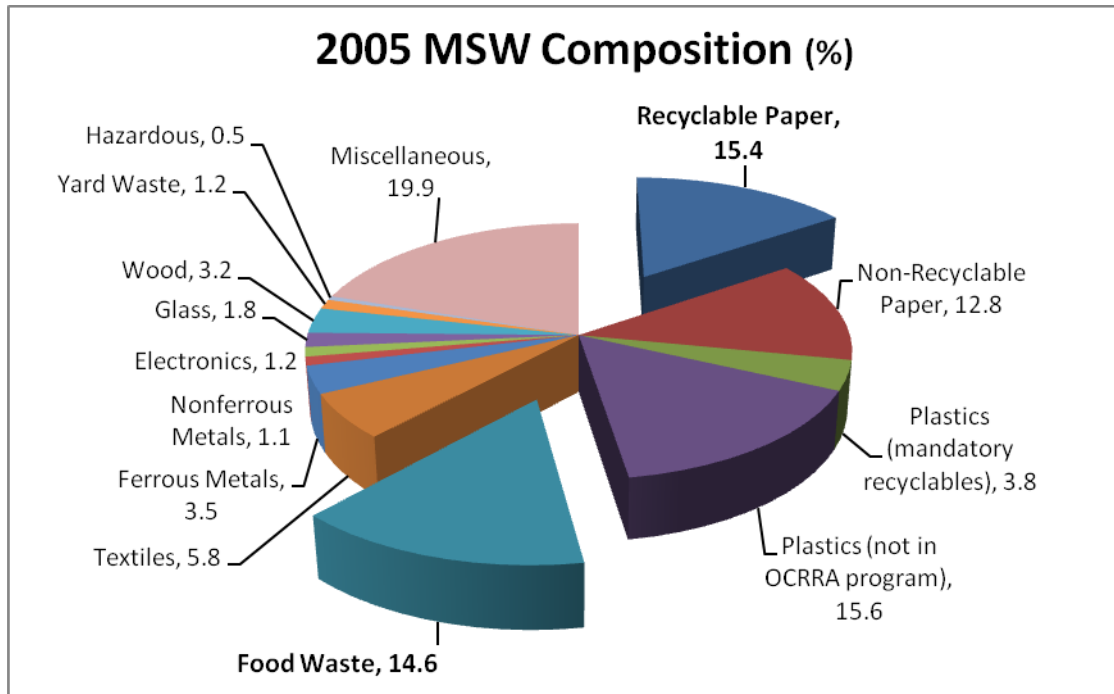
In September 2005, OCRRA conducted a Waste Quantification & Classification study to measure the composition of curbside recyclables and Municipal Solid Waste (MSW), brought to the Waste-to-Energy plant operated by Covanta Energy. Samples from these streams were sorted, as delivered, into more than 50 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 2012, the data acquired from this most recent study is 7 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.

Continued on next page. . .

Figure 3



4. Highlights of the 2012 OCRRA Recycling Program

Again in 2012, 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:

- **Submitted permit application to NYDEC** for facility and operational upgrades at Amboy Compost Site to accept increased quantities of food scraps.
- **Launched new TV/billboard/print media campaign** communicating benefits of OCRRA system.
- **Presented Recycler of the Year awards to Destiny USA.**
- Received a **\$67,750 grant** from the NY DEC for Household Hazardous Waste Collection costs.
- **Sold over 6,300 cubic yards of compost and 5,600 cubic yards of mulch;** in total, generated revenue exceeding \$246,000; a 34% increase (of \$62,331) over 2011's revenues. **Total revenues are up over 338% for the five year period of 2008 to 2012.**
- Recycling team visited **over 65 local apartment complexes** 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 7,500 fluorescent lamps** (over 2 tons) as part of partnership with local Ace and TrueValue hardware stores; **over 40,000 lamps (12.64 tons) collected since '07 launch.**

- **Over 6,400 volunteers collected over 57,000 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 both the **Syracuse Academy of Science Elementary Charter School, and to Seymour Dual Language Academy.**
- Served over 2,400 residents with household hazardous waste collection services (three events May, July, and October).
- Received one of five “**Advocacy Awards for Sustainability**” from GreeningUSA.
- A rain barrel and compost bin sale that drew hundreds of people.

➤ **BATTERIES**

Residents in the OCRRA service area are able to drop off their old batteries at ten 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 2012, over 60 tons were kept out of the trash, including over 3,000 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. Beginning in late 2011, the law 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. The law intends to ensure that harmful rechargeable batteries stay out of the waste stream and that residents and businesses have easy access to recycling options. In addition to the ten local stores that partner with OCRRA to recycle rechargeable batteries, there are now several retail locations that accept them as well.

➤ **YARD AND FOOD WASTE COMPOSTING**

OCRRA’s two compost sites offer a convenient service for residents, municipal and commercial entities to drop-off yard waste from April to November. Finished compost from the previous year is available for residents to take home as well. Residents purchase compost passes for \$15, which allows them to drop off yard waste and take away up to 6 cubic yards of compost. In 2012, residents purchased over 3,300 compost passes and made over 26,500 visits to both compost sites, an increase of 1,500 visits from 2011. In addition, there were hundreds of commercial and municipal drop-offs throughout the 2012 season. OCRRA also offers a two-week period in January each year for residents to drop off their Christmas trees for composting at no charge.



Approximately 27,000 cubic yards of yard waste were delivered to the two sites in 2012 for compost processing. In addition, another 22,000 cubic yards of wood waste were received for mulch processing. In 2008, OCRRA began accepting institutional and commercial food waste at its Amboy Compost Site. It began as a pilot project using an extended aerated static pile system (EASP), which allows the piles to maintain aerobic conditions. In this system, the food waste is covered with finished compost and injected with air (see photo, right). This project has been met with great success and continues to grow. In 2012, over 750 tons of commercial food waste was processed at OCRRA's Amboy site (vs. 320 tons in 2011). Included in this total is food waste from:



- 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
- Syracuse Banana
- Byrne Dairy / Ultra Dairy
- Community General Hospital
- Destiny USA



OCRRA's EASP system enables the agency to process both pre- and post-consumer foods, including meat and dairy products, and has become a valuable resource for the region's diversion efforts.

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.

OCRRA plans to develop the Amboy Compost Site into a 13-acre yard and food waste composting facility servicing local and regional businesses and institutions. OCRRA has committed to investing over \$2 million for this project—expansion and equipment procurement is currently underway. Over 9,000 tons of institutional and commercial food waste will be processed at the facility annually by the year 2015. The project will serve as an environmentally sound and cost-effective model for replication by municipalities across New York State. A permit application for the system upgrades was submitted to DEC in October.

➤ **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 7,500 bulbs were collected in 2012 at these stores.

➤ **HOUSEHOLD HAZARDOUS WASTE DAYS**

Household Hazardous Waste (HHW) Days continue to be one of the most popular services that OCRRA offers (see photo, below). These events allow residents to safely dispose of their hazardous waste, keeping these materials out of the waste stream. Three six-hour HHW Days were held in 2012, serving over 2,400 households. Among the hazardous wastes collected at these events were 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 to conduct the event and battery handling. Indirect costs included staffing for the day of the event, as well as preparation for advertising, handling reservations and sending out confirmation packets to the households that made appointments for each event.



➤ **MERCURY THERMOMETER AND THERMOSTAT EXCHANGE PROGRAM**

OCRRA continued its mercury thermometer exchange and thermostat collection program at the Rock Cut Road Transfer Station in 2012. 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. The mercury thermometers collected were properly disposed of as part of OCRRA's HHW collection program. This exchange program helps prevent mercury contained in household thermometers from escaping into the environment when the thermometers are broken or thrown away. 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 2012. For the first time, two shredding events were held (in the spring and fall) at Alliance Bank Stadium in Syracuse. Over 2,600 residents attended the two events, and dropped off nearly 59 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 2012, 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, with certain limitations. In 2012, OCRRA credited these organizations with approximately \$19,000.

➤ **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.

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. According to the law, residents will have access to convenient drop-off locations at no charge. That, along with a phased in electronics ban from municipal solid waste, will incentivize recycling of e-waste and put the costs onto the manufacturers. There are currently several take-back locations in Onondaga County for e-waste; [OCRRA advises residents of these convenient locations](#).

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. The law intends to ensure that rechargeable batteries, which may contain heavy metals, stay out of the waste stream and that [residents and businesses have easy access to recycling options](#). In addition to the ten local stores that partner with OCRRA to recycle rechargeable batteries, there are now several retail locations that accept them as well.

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 mercury-containing devices, such as old thermostats, thermometers and fluorescent light bulbs; CFC-containing appliances, such as air conditioners; old appliances; oil-based paint and packaging.

➤ COMMUNITY EVENTS AND PUBLIC OUTREACH

OCRRA is committed to maintaining high levels of community participation through its recycling program. In 2012, 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), Youth Day BBQ 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 delivers winter clothing to LeMoyne Elementary school that was collected through the Agency's efforts.*



OCRRA Recycling Specialists also shared their expertise with the recycling community by presenting at various conferences in 2012, 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 2012, **over 6,400 volunteers collected over 57,000 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 the Butternut Street Community Center.**

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).