

## Onondaga County Resource Recovery Agency

### 2011 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, 2011 through December 31, 2011

**Date:** March 1, 2012

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

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#### 1. 2011 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.

Each year, the 467,000 Onondaga County residents exceed expectations and maintain a fantastic recycling rate. In 2011, an impressive **37,760 tons** of material was collected from households through the blue bin curbside recycling program.

In 2011, over **547,900 tons were recycled** through mandatory and voluntary recycling (both residential and commercial) in the community, **for a total recycling rate of 60%** (see Table 1). OCRRA also met permitting requirements for the Waste-to-Energy facility set forth by the NYSDEC to maintain a 40% processible recycling rate<sup>1</sup>, by reaching 45%, or 225,100 tons (see Table 2).



*Above: OCRRA Recycling Aide Allison Stuart gives out recycling information to residents at the 2011 Blue Rain Eco Fest, in downtown Syracuse.*

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.

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

Table 1 shows all recycling and trash generation for 2011 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-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 2011.

<b>Table 1 - 2011 Recycling and Solid Waste</b>		
<b>Recycling</b>	<b>Tons</b>	<b>Percent of Total Waste</b>
Curbside Recycling (Primarily Residential)	37,760	
Commercial Recycling (Primarily Business)	510,162	
<b>Total Recycling</b>	<b>547,922</b>	<b>60%</b>
<b>Solid Waste</b>		
Incoming Municipal Solid Waste (MSW)	283,744	
Less MSW Ferrous & Nonferrous Recycling <sup>1</sup>	(8,505)	
Incoming Construction & Demolition Debris (C&D)	56,086	
Incoming Other Waste <sup>2</sup>	37,612	
<b>Total Solid Waste</b>	<b>368,937</b>	<b>40%</b>
<b>Total Recycling and Solid Waste</b>	<b>916,859</b>	

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

<sup>2</sup>Includes biosolids currently being sent to a landfill.

<b>Table 2 - 2011 Processible Recycling and Municipal Solid Waste<sup>1</sup></b>		
<b>Processible<sup>2</sup> Recycling</b>	<b>Tons</b>	<b>Percent</b>
Curbside Recycling (Primarily Residential)	37,760	
Processible Commercial (Primarily Business)	187,396	
<b>Total Processible Recycling</b>	<b>225,156</b>	<b>45%</b>
<b>Municipal Solid Waste (MSW)</b>		
Incoming Municipal Solid Waste	283,744	
Less MSW Ferrous & Nonferrous Recycling <sup>3</sup>	(8,505)	
<b>Total MSW</b>	<b>275,239</b>	<b>55%</b>
<b>Total Processible Recycling and Solid Waste</b>	<b>500,395</b>	

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

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

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

<b>Table 3 - 2011 Recycling By Material</b>		
<b>MATERIAL</b>	<b>TONS<sup>1</sup></b>	<b>PERCENT OF TOTAL<sup>2</sup></b>
<b>Organic Wastes (excluding Paper)</b>		
Food	78,178	14%
Yard Waste	35,364	6%
Wood	14,473	3%
Textiles	4,697	1%
<b>Total Organic</b>	<b>132,712</b>	<b>24%</b>
<b>Plastics</b>		
	<b>8,511</b>	<b>2%</b>
<b>Metal</b>		
Ferrous Metals, except MSW Ferrous	132,261	24%
MSW Ferrous and MSW Non Ferrous	8,505	2%
Non Ferrous Metals, except Aluminum and MSW Non Ferrous	10,197	2%
Aluminum	7,355	1%
<b>Total Metal</b>	<b>158,318</b>	<b>29%</b>
<b>Paper</b>		
Corrugated Cardboard and Kraft Bags	90,323	16%
Newspapers and Magazines	24,688	5%
Office / Mixed Paper	48,981	9%
Books	480	0.1%
<b>Total Paper</b>	<b>164,471</b>	<b>30%</b>
<b>Sludge</b>		
	<b>60,957</b>	<b>11%</b>
<b>Other</b>		
Glass	9,629	2%
Special and Hazardous Wastes	962	0.2%
Electronics and Batteries	4,935	1%
Appliances	612	0.1%
Miscellaneous	6,816	1%
<b>Total Other</b>	<b>22,954</b>	<b>4%</b>
<b>TOTAL</b>	<b>547,922</b>	<b>100%</b>

<sup>1</sup>Data 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.

<sup>2</sup>Data may not equal 100% due to rounding.

### **Greenhouse Gas Avoidance**

Recycling has many environmental benefits, including resource and energy savings due to avoidance of using virgin materials. The USEPA provides its WARM Model to allow users to determine the amount of greenhouse gases (GHGs) saved due to recycling or composting. In the table below, the GHG emissions avoided for materials recycled in Onondaga County in 2011 has been calculated. In 2011, Onondaga County's recycling program saved over 1.2 million MTCO<sub>2</sub>E from being emitted. This is equivalent to taking more than **223,000 passenger vehicles off the road**<sup>2</sup>.

<b>Table 4 – 2011 Greenhouse Gas Emissions Avoidance</b>			
<b>MATERIAL<sup>1</sup></b>	<b>RECYCLING / COMPOSTING vs. COMBUSTION EMISSION FACTORS<sup>2</sup> (MTCO<sub>2</sub>E per short ton)</b>	<b>TONS RECYCLED/ COMPOSTED</b>	<b>GHG EMISSIONS MITIGATED (MTCO<sub>2</sub>E)</b>
Food	-0.07	78,178	-5,472
Yard Waste	-0.04	35,364	-1,415
Wood	-1.85	14,473	-26,775
Mixed Plastics	-2.79	8,511	-23,746
Mixed Metals <sup>3</sup>	-4.35	165,083	-718,111
Corrugated Box	-2.59	99,585	-257,925
Magazines	-2.71	3,737	-10,127
Newspaper	-2.22	20,951	-46,511
Mixed Paper - Office	-3.14	48,981	-153,800
Books	-2.62	480	-1,258
Glass	-0.33	9,629	-3,178
Electronics/Batteries	-2.09	4,935	-10,314
<b>TOTAL GHGs Mitigated</b>			<b>-1,258,632</b>

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

<sup>2</sup>GHG avoidance factors are taken from the USEPA's WARM Model, Version 11.0: [http://www.epa.gov/climatechange/wycd/waste/calculators/Warm\\_home.html](http://www.epa.gov/climatechange/wycd/waste/calculators/Warm_home.html). Factors are based on recycling / composting vs. combustion.

<sup>3</sup>Mixed Metals include: Ferrous Metals, MSW Ferrous, Non Ferrous Metals, MSW Non Ferrous, Aluminum, and Appliances

### **Required Recycling**

A major success for OCRRA's recycling program in 2011 was an update to the local Source Separation Law. In the latter half of 2011, OCRRA worked with the Onondaga County Legislature to revise the original 1989 law, which mandated recycling by waste generators. The new version passed the Legislature in December of 2011 and went into effect January 1, 2012.

The update:

- Clarifies requirements by simplifying language and spelling out specifics for businesses

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

- 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
<p><b>Residential and Commercial</b></p> <ul style="list-style-type: none"> <li>• Office Paper and Discarded Mail</li> <li>• Newspapers and Magazines</li> <li>• Corrugated Cardboard, Brown Paper Bags, Paperboard, Pizza Boxes</li> <li>• Milk and Juice Cartons, Gable-Top Cartons, Aseptic Cartons</li> <li>• Glass Food and Beverage Containers</li> <li>• Metal Food and Beverage Containers</li> <li>• Aluminum Foil</li> <li>• Aerosol Cans</li> <li>• #1 and #2 Plastic Bottles</li> <li>• #5 Plastics</li> <li>• <b>NEW in 2011:</b> Softcover books</li> </ul>

**Discussion**

Curbside recycling (residential) for Onondaga County in 2011, at 37,700 tons was approximately 2% lower than 2010. Commercial and business recycling, at 510,000 tons, is approximately 12,000 tons higher than 2012, an increase of 2% (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 2000s, however 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. In addition, the decrease in recycling is indicative of some larger general trends, such as the decrease in newspaper and magazine use due to online news options, resulting in less subscriptions and therefore less papers printed.<sup>3</sup> Not only is the amount of papers printed decreasing, but so is the actual size of newspapers. There are less pages printed due to less advertising (because of a loss in readership), as well as a drop in classified pages as more people use online sites to sell items, services or search for jobs. “Thinwalling” is also a global trend, where the materials used to create certain packaging, such as plastic water bottles, aluminum cans and a wide variety of other consumer product containers are thinner and therefore weigh less. These trends result in less material generated that could ultimately be recycled.

Consumers are spending less than they were a few years ago; in fact 2010 and 2011 spending levels have not yet recovered from when the current financial crisis began in 2008<sup>4</sup>. Less consumer purchasing

<sup>3</sup> deThomas, D. The Shape of MRFs to Come. Resource Recycling, Dec 2011.

<sup>4</sup> Saad, L. Feb 3, 2012. <http://www.gallup.com/poll/152456/Consumer-Spending-Declined-January-Typical.aspx>

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 less 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.

In addition, due to tight budgetary conditions, OCRRA has decreased its investment for public education in the past few years. This may have contributed to a recycling decrease, as fewer people were reached with OCRRA's message. OCRRA's Board has recognized this potential factor and is taking steps to strengthen the public education campaign for 2012.

However, despite these factors, total recycling increased 2% from 2010 and Onondaga County residents and businesses maintained a consistent recycling rate of 60%. This is still quite an achievement, especially when facing such poor economic circumstances and demonstrates that the residents of Onondaga County make recycling a priority even during tough economic times.

## 2. 2011 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 by a New York State certified school teacher; and numerous brochures and teaching 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 2011, 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; and
- ❁ Special services and programs for businesses, schools and apartment building managers and owners.

Direct program costs in 2011 (unaudited) associated with the recycling services are as follows:

<b>Table 6 – 2011 RECYCLING COSTS</b>	
<b>PROGRAM</b>	<b>EXPENSE</b>
Recycling Personnel *	\$478,696
Material Recovery Facility (MRF) Fees	(\$66,303)
Public Education - Outside Service	\$383,224
Composting	\$216,670
Household Hazardous Waste (HHW) Collection	\$159,126
Blue Bin Expense	\$157,682
Other Recycling Programs	\$104,962
<b>Total Cost</b>	<b>\$1,434,057</b>

\*Includes all Recycling and 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).



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 the 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. 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 relatively steady in 2011, and both stayed at or above \$80 per ton for the entire year (see Figure 2). The MRFs paid OCRRA a net sum of \$66,303 in 2011 (see Table 7).

The MRF contract is a valuable tool, which allows OCRRA to formulate and maintain a uniform definition of “blue bin” recyclables. 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.

Fluctuations in the commodity markets are difficult to predict from year to year. As seen in Table 7, the last several years of favorable market conditions for recyclable commodities required significantly lower MRF expenses than in 2001, 2002 and 2003. Market conditions sustained high enough prices in 2011 that OCRRA saw a net return from the MRFs.

<b>TABLE 7 – TOTAL MRF PAYMENTS</b>	
2001	\$432,000
2002	\$334,970
2003	\$173,347
2004	\$19,804
2005	\$74,727
2006	\$68,668
2007	(\$66,820)
2008	(\$58,250)
2009	\$158,106
2010	(\$37,256)
2011	(\$66,303)

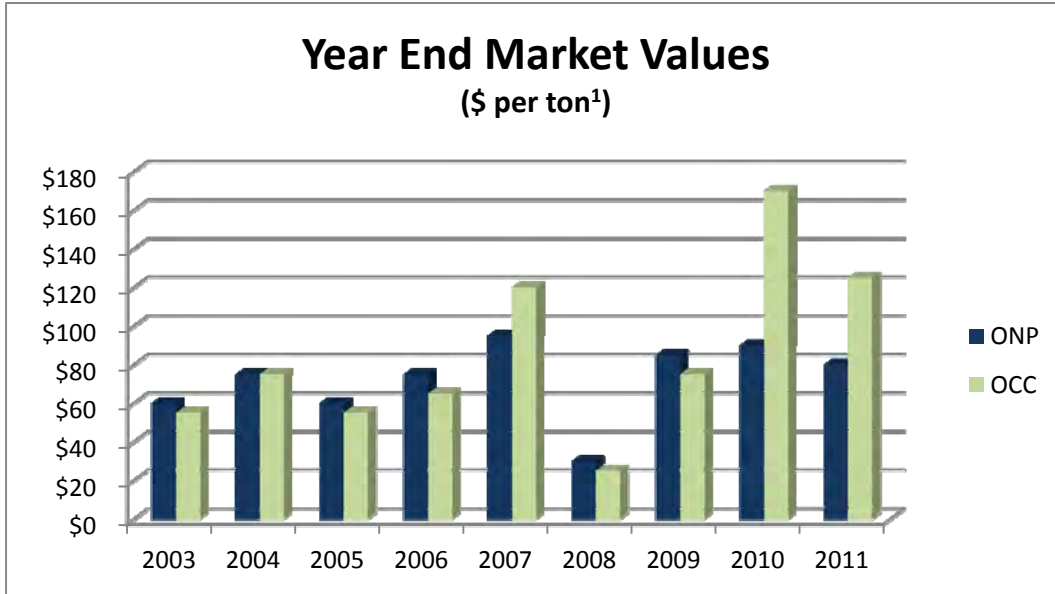
Prices for OCC and ONP stayed relatively steady throughout 2011 (see Figure 2). However, November and December showed an abrupt decrease for both commodities, as is reflected in the year-end values, shown in Figure 1. According to the Official Board Markets publication,<sup>5</sup> this drop is not indicative of an impending crisis, like that seen in 2008, but a market correction due to Chinese paper mills using up existing inventories instead of buying new. Continued global economic woes meant less outgoing material for the Chinese mills, driving them to buy less from US suppliers. Since China has significant influence in the US commodities markets, this drove prices down. Chinese mills are expected to take

<sup>5</sup> Official Board Markets. November 5, 2011. Vol. 84, No. 45.

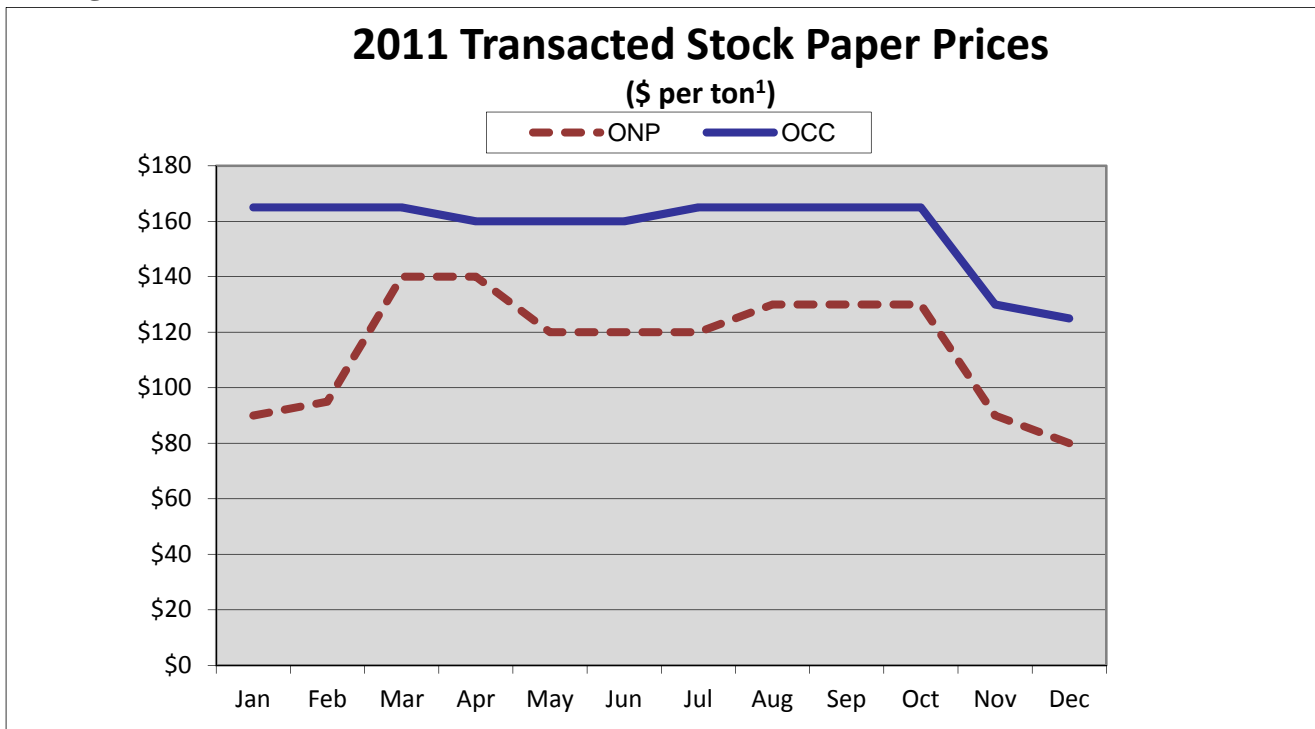


some downtime in early 2012, so prices may not recover until February 2012 at the earliest<sup>6</sup>. While none of this constitutes a crisis, it is indicative of the poor economic situation in the US and abroad, as consumer buying power has dropped off.

**Figure 1**



**Figure 2**



<sup>1</sup>Prices for ONP and OCC are based on the Official Board Markets (Buffalo)

<sup>6</sup> Official Board Markets. December 3, 2011. Vol. 87, No. 49.

### 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 2011, 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 in 2011.

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 imparted.

#### **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 2011. 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 2011, OCRRA continued to invest resources into direct public education through TV, web and print media. In addition to paid media advertising, OCRRA continues to publish its quarterly newsletter, 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 distributes the newsletter as an insert in the local Pennysaver, which reaches 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.

OCRRA also has an extensive and user-friendly website ([www.OCRRA.org](http://www.OCRRA.org)), which was highlighted throughout the 2011 advertising campaign. It boasts easy navigation and enhanced search features to allow users to quickly find recycling options for their unwanted items. It also allows users to make online reservations for household hazardous waste days. 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.

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). The web software also allows for tracking of the number of people that open the emails, click on specific links or forward it to others. 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](#). The page has allowed 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 (*sample at right*), 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 2011, OCRRA Recycling Specialists visited over 100 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 2011, OCRRA continued to provide free consultations, as well as free containers and decals to all types of businesses.

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 57 certified Blue Ribbon Recyclers, 17 of which were awarded in 2011.

New in 2011 was OCRRA’s Recycler of the Year awards, given to eight businesses in Onondaga County that were certified as Blue Ribbon Recyclers and demonstrated stellar recycling in 2010. Winners were selected for each designated sector (see table below) and honored at a ceremony held at the Rosamond Gifford Zoo, in Syracuse, in March 2011.

<b>2010 Recycler of the Year Award Winners</b>	
<b>Company Name</b>	<b>Category</b>
<b>CDM</b>	Business
<b>SUNY Empire State College</b>	Education
<b>Diamond Catering</b>	Food Service
<b>OCWA</b>	Government
<b>Jadak LLC</b>	Manufacturing
<b>Liverpool Village Animal Hospital</b>	Medical
<b>Green Hills Market</b>	Retail
<b>Sheraton Syracuse University Hotel</b>	Tourism & Leisure

**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 2011. 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 2011, the award went to the Southside Charter Academy (at right: Recycling Director Andrew Radin awards an Earth Flag to Southside Charter Academy’s custodian, a teacher and students for the annual Vonell Mastri Award in June 2011).



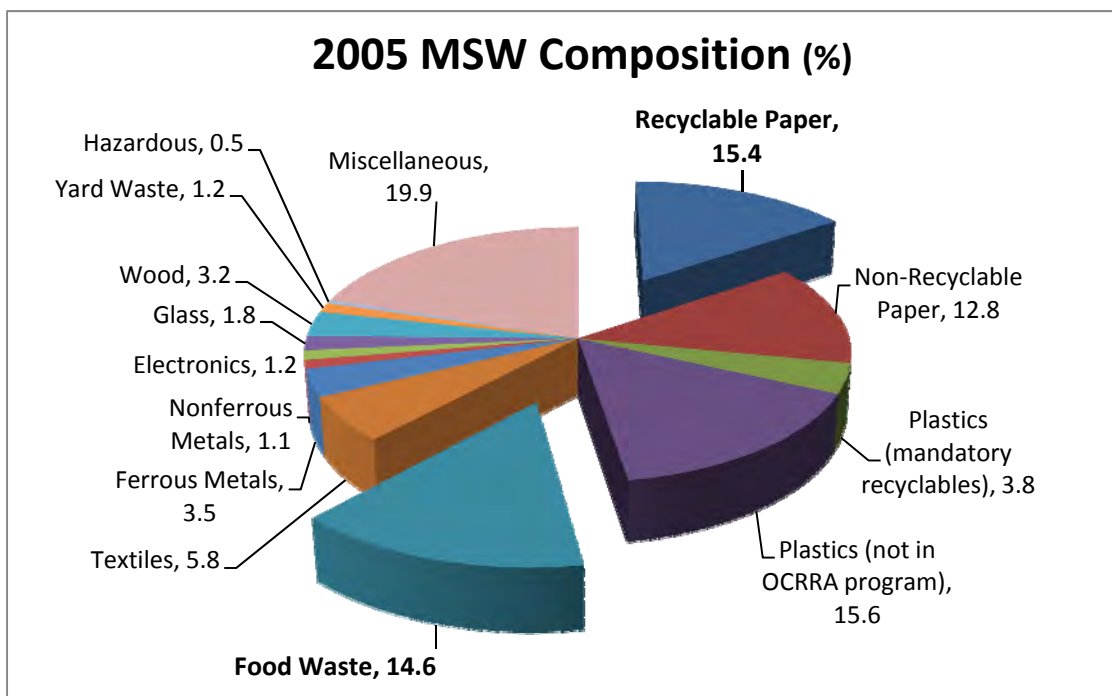
**2005 Waste Quantification & Classification**

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 2011, the data acquired from this most recent study is 6 years old. More up-to-date information would be invaluable for further program evaluation; OCRRA is currently considering its ability to devote resources to planning and executing another large-scale Waste Quantification & Classification, but has made no concrete plans as of yet.

**Figure 3**





## 4. Highlights of the 2011 OCRRA Recycling Program

Again in 2011, 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.

### ➤ NEW RECYCLABLE

In 2011, OCRRA announced the addition of **softcover books** to the list of mandatory recyclables, a decision based on market research and consultations with the Material Recovery Facilities. Beginning in April 2011, OCRRA residents and businesses were asked to recycle unusable softcover books in their blue bins. Residents were encouraged to donate any books in good condition before recycling.

### ➤ AWARDS



OCRRA's recycling and waste reduction program was recognized by multiple organizations in 2011 for program excellence. OCRRA's service area was a finalist in the Residential Recycling Conference 2011 [Green City Awards](#) for medium-sized communities. The NYS Department of Environmental Conservation awarded OCRRA with an [Environmental Excellence Award](#) for the Municipal Food Waste Composting Program in December of 2011. Finally, the [Solid Waste Association of North America](#) (SWANA) honored OCRRA with three awards in 2011: (1) Marketing Excellence Silver Award for the innovative "Save the World a Little Each Day" campaign; (2) Composting

Systems Excellence Silver Award for the Food Waste Composting Program; and (3) Integrated Solid Waste Management Systems Excellence Bronze Award, which encompassed all of OCRRA's effective and customer-service oriented programs, including recycling. *(Above: OCRRA Recycling staff members Greg Gelewski (left) and Ann Fordock (2<sup>nd</sup> from right) accept the DEC Environmental Excellence Award from State Senator John DeFrancisco and DEC representative Jack Nasca.)*

### ➤ 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 2011, a total of 74 tons were kept out of the trash; 4 tons of which were rechargeable batteries.

In 2011, OCRRA sent over 8,300 pounds of rechargeable batteries out for recycling at no disposal 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 2011, residents purchased over 3,300 compost passes and made over 25,000 visits to both compost sites. In addition, there were hundreds of commercial and municipal drop-offs throughout the 2011 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 7,000 tons of yard waste was delivered to the two sites in 2011 for compost processing. In addition, another 4,000 tons of wood waste was 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. This project has been met with great success and continues to grow. In 2011, over 320 tons of commercial food waste was processed at OCRRA's Amboy site on a minimal footprint and with minimal staffing and investment (*see photo, at right*). Included in this total is food waste from Syracuse University's Food Services Department, Excellus BlueCross BlueShield and Upstate University, to name a few. 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.



### ➤ 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 7,300 bulbs were collected in 2011 at these stores.

### ➤ HOUSEHOLD HAZARDOUS WASTE DAYS



Household Hazardous Waste (HHW) Days continue to be one of the most popular services that OCRRA offers. 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 2011, serving over 3,700 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. (Left: An Environmental Products & Services employee unloads residents' hazardous waste at one of OCRRA's 2011 Household Hazardous Waste Days.)

### ➤ MERCURY THERMOMETER AND THERMOSTAT EXCHANGE PROGRAM

OCRRA continued its mercury thermometer exchange and thermostat collection program at the Rock Cut Road Transfer Station in 2011. 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 eighth annual Shred-O-Rama in 2011. This September event took place at Alliance Bank Stadium in Syracuse. Over 1,600 residents dropped off 37 tons of confidential documents to be shredded. Paper was shredded on site and then recycled by Confidata and Feher, two local shredding companies.

### ➤ NON-PROFIT RECYCLING INCENTIVE PROGRAM FOR LOCAL CHARITIES

In 2011, 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 2011, 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 and retailers 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.

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 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.

OCRRA is an active member of the Product Stewardship Institute, a national 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 2011, 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: Recycling Specialist Sarah Stewart presents to local 6<sup>th</sup> graders about vermi-composting at the Green Lakes State Park Environmental Field Days in October 2011.)*



OCRRA Recycling Specialists also shared their expertise with the recycling community by presenting at various conferences in 2011, including the Federation of NY Solid Waste Associations Conference and the New York Association for Reduction, Reuse and Recycling Conference.

### **Earth Day**

In addition to recycling and waste reduction programs, OCRRA also sponsors an Annual Earth Day Litter Clean-Up, which is a community-wide, two-day event occurring in April each year. In 2011, 8,800 volunteers collected over 164,000 pounds of litter (a record high for this event). 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.

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

- ♻️ A year-round recycling drop off six days per week for mandatory recyclables at OCRRA Transfer Stations. This service includes a no-charge drop-off for household scrap metal and office paper from small businesses;
- ♻️ Grant application submittals to support a variety of OCRRA programs, including advertising and public education, food-waste composting, household hazardous waste collection, recycling containers and recycling personnel costs; and
- ♻️ Participation in solid waste associations. All members of OCRRA's recycling team are members of the New York State Association of Recycling, Reduction and Reuse (NYSAR<sup>3</sup>).

### **OCRRA's recycling team members are:**

- Andrew Radin; Director of Recycling and Waste Reduction
- Greg Gelewski; Recycling and Waste Reduction Operations Manager
- Ann Fordock, David Nettle and Sarah Stewart; Recycling Specialists
- Donato Mercuri and Allison Stuart; Recycling Aides
- Elaine Van Avery; Recycling Educator (Contracted Service Provider)
- Tom Furgeson and Mike Wilbur; Compost Site Technicians
- Seasonal Compost Site Gatekeepers