

Onondaga County Resource Recovery Agency

2009 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, 2009 through December 31, 2009

Date: March 1, 2010

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

Contact Person: A.T. Rhoads, Executive Director, OCRRA
100 Elwood Davis Road North Syracuse, NY 13212-4312

1. 2009 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. Established in 1989, OCRRA has overseen recycling of over 11 million tons of material.

Each year, the approximately 450,000 Onondaga County residents exceed expectations and maintain a fantastic recycling rate. 2009 was no different—OCRRA's service area demonstrated a continued dedication to recycling. An impressive **42,000 tons** of material was collected from households through the Blue Bin curbside recycling in 2009—this is **1,000 tons more than 2008**.

In 2009, a total of **581,000 tons** were recycled through mandatory and voluntary recycling (both residential and commercial) in the community, **for a total recycling rate of 64%** (see Table 1). OCRRA also met permitting requirements set forth by the NYSDEC to maintain a 40% processible¹ recycling rate, by reaching a 47% processible recycling rate, or 245,000 tons (see Table 2).



Above: OCRRA Recycling Aide Allison Stuart and volunteer Cathy Tuscano give Onondaga County residents Chuck and Marilyn Schlegel recycling information at the 2009 New York State Fair.

¹Processible materials are those which could have been disposed of at the Waste-to-Energy Facility.

OCRRA inventories and records recycling tonnages of all material, mandated and non-mandated, which is diverted for recycling through the efforts of the curbside program, private commercial and industrial entities, and public and private institutions. Material items include, but are not limited to: bulky metals (scrap autos are not counted), food waste, textiles, unique plastics, sludge, oils, and wood. Deposit beverage containers are also reported in the recycling tonnages.

Table 1 - 2009 Recycling and Solid Waste		
Recycling	Tons	Percent of Total Waste
Curbside Recycling (Primarily Residential)	42,014	
Commercial Recycling (Primarily Business)	539,467	
Total Recycling	581,480	64%
Solid Waste		
Incoming Municipal Solid Waste (MSW)	282,683	
Less MSW Ferrous & Nonferrous Recycling ¹	(10,206)	
Incoming Construction & Debris (C&D)	52,594	
Total Solid Waste	325,071	36%
Total Recycling and Solid Waste	906,551	

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

Table 2 - 2009 Processible Recycling and Municipal Solid Waste¹		
Processible² Recycling	Tons	Percent
Curbside Recycling (Primarily Residential)	42,014	
Processible Commercial (Primarily Business)	203,245	
Total Processible Recycling	245,259	47%
Municipal Solid Waste (MSW)		
Incoming Municipal Solid Waste	282,683	
Less MSW Ferrous & Nonferrous Recycling ³	(10,206)	
Total MSW	272,477	53%
Total Processible Recycling and Solid Waste	517,736	

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 – OCRRA Mandated Recyclables

Residential

- 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
- #1 and #2 Plastic Bottles
- Aerosol Cans

Commercial

- Office Paper and Discarded Mail
- Newspapers and Magazines
- Corrugated Cardboard, Brown Paper Bags, Paperboard, Pizza Boxes
- Other Blue Bin items (if economically justified)



ABOVE: Students and teachers from Levy School in Syracuse plant a tree donated by OCRRA. The school won OCRRA’s annual Mastri Award for recycling excellence in June 2009.



ABOVE: OCRRA employees pose for a picture behind bags of trash they collected for the Annual Earth Day Clean-Up in April 2009.



ABOVE: OCRRA Recycling Specialist Dave Nettle (center) presents the Blue Ribbon Recycler Certificate to Green Hills Market, in Syracuse.

Table 4 - 2009 Recycling By Material		
MATERIAL	TONS¹	PERCENT OF TOTAL²
Organic Wastes (excluding Paper)		
Food	110,436	19%
Yard Waste	17,502	3%
Wood	28,213	5%
Textiles	4,898	1%
Total Organic	161,049	28%
Plastics		
	7,200	1%
Metal		
Ferrous Metals, except MSW Ferrous	97,718	17%
MSW Ferrous and MSW Non Ferrous	10,206	2%
Non Ferrous Metals, except Aluminum and MSW Non Ferrous	8,528	1%
Aluminum	4,817	1%
Total Metal	121,269	21%
Paper		
Corrugated Cardboard and Kraft Bags	96,104	17%
Newspapers and Magazines	19,015	3%
Office / Mixed Paper	57,552	10%
Books	412	0%
Total Paper	173,083	30%
Sludge		
	84,094	14%
Other		
Glass	7,878	1%
Special and Hazardous Wastes	1,177	0.2%
Electronics and Batteries	5,960	1%
Appliances	985	0.2%
Miscellaneous	18,786	3%
Total Other	34,786	6%
TOTAL	581,481	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 2009 has been calculated. In 2009, Onondaga County's recycling program saved over 1 million MTCO₂E from being emitted. This is equivalent to taking more than **185,000 passenger vehicles off the road**².

Table 5 – 2009 Greenhouse Gas Emissions Avoidance			
MATERIAL¹	RECYCLING / COMPOSTING vs. COMBUSTION EMISSION FACTORS² (MTCO₂E per short ton)	TONS RECYCLED/ COMPOSTED	GHG EMISSIONS MITIGATED (MTCO₂E)
Food	-0.04	110,436	-4,417
Yard Waste	0	17,502	0
Wood	-1.73	28,213	-48,808
Mixed Plastics	-2.62	7,200	-18,864
Mixed Metals ³	-4.36	122,254	-533,027
Corrugated Box	-2.49	96,104	-239,299
Magazines	-2.63	2,947	-7,751
Newspaper	-2.11	16,068	-33,903
Mixed Paper - Office	-2.87	57,552	-165,174
Books	-2.53	412	-1,042
Glass	-0.33	7,878	-2,600
Electronics/Batteries	-2.08	5,970	-12,418
TOTAL GHGs Mitigated			-1,067,304

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 10.0: http://www.epa.gov/climatechange/wycd/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

Discussion

Onondaga County residents are not immune to the effects of the economic downturn that was present throughout 2009. A loss of economic footing causes people to buy less discretionary items. This results in less material being thrown in the trash *and* the Blue Bin, as there is less packaging to be disposed of. In 2009, approximately 325,000 tons of trash (MSW and construction and demolition debris) was disposed of – this is 8% less than 2008. Total recycling dropped as well, from 681,000 tons in 2008 to 581,000 tons in 2009; a drop of almost 15%. Such drastic drops in tonnages demonstrate how much a poor economy can effect peoples' buying habits, and in turn, their disposal habits.

² Calculated using USEPA's Greenhouse Gas Equivalencies Calculator at www.epa.gov/RDEE/energy-resources/calculator.html

This is also demonstrated on the commercial side of recycling. Much of the decrease in total recycling came from non-processible material (i.e., non-mandatory items), showing that perhaps the economy affected their material output. But, commercial processible items increased by approximately 7,000 tons, much of which is attributed to cardboard and office/mixed paper.

On the plus side, while total tons of recyclables decreased in 2009, the tons recycled by residents curbside (Blue Bins materials) increased by 1,000 tons from 2008. And, even more impressive is that despite the significant decrease in total trash and recyclables, Onondaga County residents and businesses maintained a consistent recycling rate. While the percentage recycled decreased from last year; 66% to 64%, it still demonstrates that the residents of Onondaga County make recycling a priority and are able to maintain a consistent recycling rate even during tough economic times.

2. 2009 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 taxation. The trash tipping fee revenue provides 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, billboard, 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 for residential recyclables. 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. In addition, OCRRA operates a Community Collection Center, where residents can drop off electronics (including TVs, computer components, VCRs, and stereos), fluorescent light bulbs, batteries, books, cell phones, and smoke detectors for recycling or proper disposal.

During 2009, OCRRA’s Recycling Program managed:

- ❁ Two yard waste compost sites, open to the public six days per week from April to November;
- ❁ A Community Collection Center (C3), where electronics, fluorescent light bulbs, batteries, books, cell phones and smoke detectors are collected for recycling or proper disposal year-round;
- ❁ Four Household Hazardous Waste (HHW) collection days;
- ❁ A collection day for air-conditioners, dehumidifiers and propane tanks;
- ❁ 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 2009 (unaudited) associated with the recycling services are as follows:

Table 6 – 2009 RECYCLING COSTS	
PROGRAM	EXPENSE
Recycling Personnel	\$448,033
Material Recovery Facility (MRF) Fees	\$180,333
Public Education - Outside Service	\$473,070
Composting	\$132,472
Household Hazardous Waste (HHW) Collection	\$133,284
Blue Bin Expense	\$178,716
Computer and TV Collection	\$132,721 ¹
Other Recycling Programs	\$211,038
Total Cost	\$1,889,667

¹Includes cost of Community Collection Center operations.

“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 2005 OCRRA secured the renewal of a 5-year contract agreement, 2006 through 2010, with two private local MRFs. This contract reduces the Agency’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.

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.

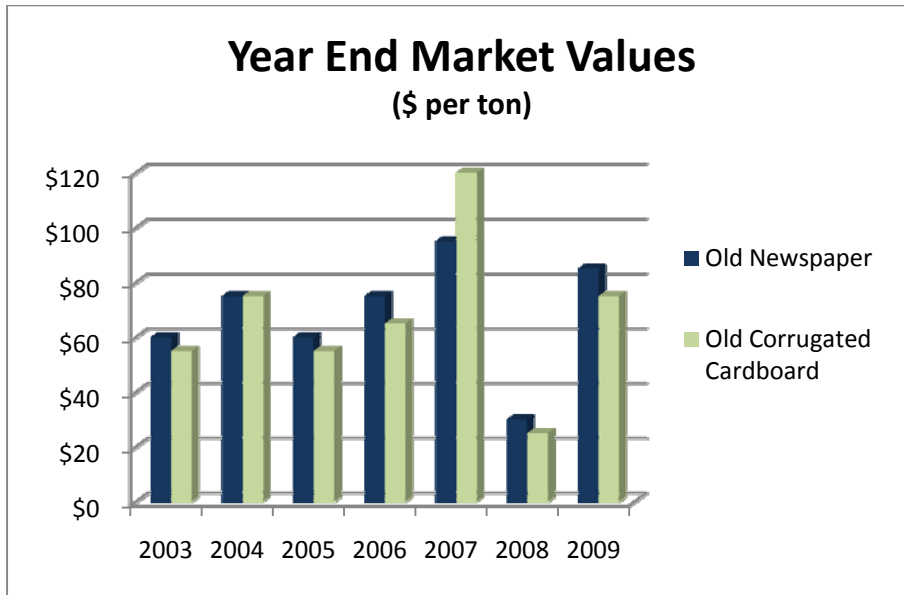
Taking into consideration the value of the commodities in the Blue Bin, OCRRA pays the MRF for processing and marketing residential recyclables using a formula adopted with the 2006 contract. Each month, OCRRA pays the MRFs an administrative fee of \$1.50 per ton for the processing and marketing of the residential recyclables collected under the mandatory program. Additional payments may be made from or to OCRRA depending on the market prices of old corrugated cardboard (OCC) and old newspapers (ONP). Consistent prices below \$40 per ton require an additional payment from OCRRA to the MRFs; while market prices above \$80 per ton require a payment to OCRRA from the MRFs. Market prices for OCC and ONP were very low the first half of 2009, with a recovery during the second half of the year (see Figure 2). Due to poor market conditions in 2009, OCRRA paid a net sum of \$158,106 to the MRFs (see Table 7).

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 and 2002. Market conditions sustained high enough prices in 2007 and 2008 that OCRRA saw a net return from the MRFs. However, 2009 prices were significantly lower early in the year; therefore OCRRA paid a total of \$158,106 to the MRFs in 2009. Also in 2009, due to the economic downturn and the decrease in commodity prices, one of the two contracted MRFs closed. Therefore, for much of 2009 and into 2010, OCRRA’s service area has only one contracted MRF that receives Blue Bin material.

TABLE 7 – TOTAL MRF PAYMENTS	
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

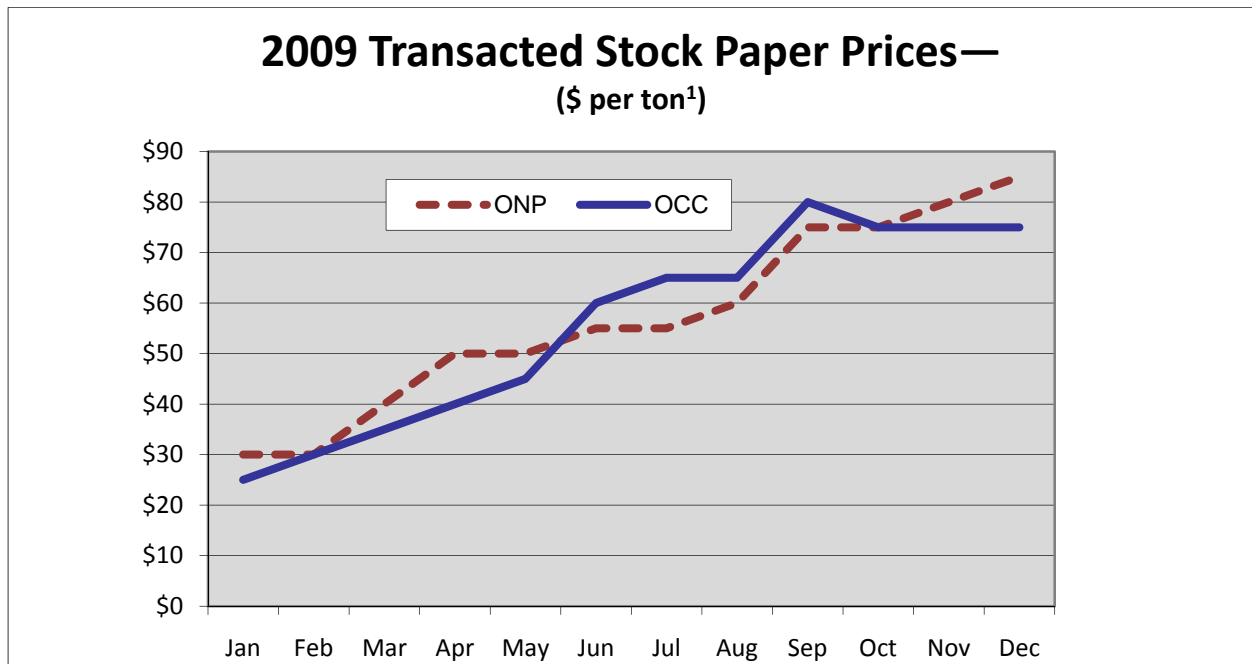
Prices for contractual commodities in December 2009 and prior years are shown in Figure 1. Prices at the end of 2008 were particularly low, and recovered somewhat by December 2009. The sizeable downturn in OCC and ONP prices at the end of 2008 led to a slow start in 2009, as shown in Figure 2. However, prices recovered somewhat by the end of 2009, at \$75 for OCC and \$85 for ONP.

Figure 1



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

Figure 2



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

3. Public Education, Program Outreach, and Enforcement

OCRRA continues to enforce the local law mandating source separation for recycling through a system of public education and outreach.

Recycling Team

OCRRA employs a professional recycling team engaged in spreading the recycling message and bringing technical assistance to the residents, schools, and businesses in Onondaga County. OCRRA's three Recycling Specialists explore inquiries and complaints about business, apartment, and institutional recycling. In 2009, the Recycling Specialists visited hundreds of local businesses, apartment complexes, and schools to offer assistance in designing recycling programs as well as free recycling containers and decals. In addition, OCRRA employs a New York State certified teacher, who spoke to over 12,000 local students in 575 classes in 2009.

When needed, enforcement officers supplement the efforts of the business and apartment 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 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.

OCRRA Communications

The Onondaga County community maintains an excellent recycling rate; however, frequent communication from OCRRA is necessary to alert those who recently moved to the area of the recycling rules, to remind current residents of what's recyclable, 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 2009. In 2007 and 2008, OCRRA used a BlueBinIt® advertising campaign, which focused on humor and basic recycling rules. In light of a survey conducted in 2008, OCRRA fine-tuned the public message to promote the "why" of recycling and the difference one person can make in preserving natural resources for future generations. This new campaign 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. See a sample ad below.



In 2009, approximately \$256,000 was spent on direct public education through radio, TV, and print media campaigns. In addition to paid media advertising, OCRRA continues to publish its quarterly newsletter, the *OCRRA Update*. It contains articles written by OCRRA staff which 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 and special events as well.

OCRRA also has an extensive and user-friendly website (www.OCRRA.org), which has been highlighted throughout the 2009 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 the Recycling Supply Order Form, which allows businesses, schools, and apartment buildings to order free recycling containers and decals with a few simple clicks. The new form has helped Recycling Specialists streamline the ordering process and serve customers faster and more efficiently.

Perhaps one of OCRRA's most effective means of communication is via email. Through an email blast system, emails covering various recycling topics and upcoming events are sent twice a month to approximately 16,000 people. In addition to the main list, OCRRA has the ability to create smaller sublists 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 our email address list grows each year.

Various groups in 2009 recognized OCRRA's excellence in services and outreach. Greening USA, a Central New York non-profit group focusing on sustainable communities, presented OCRRA with their Award for Excellence for an outstanding effort in bringing awareness of community sustainability to the public through ongoing monthly awareness newsletters and promotion of Earth Day Cleanup. In addition, the Syracuse Commission of Women presented OCRRA with their Earth Steward award for "taking the lead to save our planet".

Residential Recycling

OCRRA enforcement officers periodically measure Blue Bin set-out rates (frequency of Blue Bins at the curb on trash day) in neighborhoods throughout the county. These measurements give an estimation of how much residential recycling is occurring in particular neighborhoods. This, in turn, allows OCRRA to focus its public education campaign on certain areas that may need improvement.

In 2009, OCRRA coordinated four Blue Bin giveaways in areas where low curbside set-out rates were observed. These events occurred on different Fridays at three participating grocery stores and a community center. Over 1,000 Blue Bins, along with recycling instructions, were distributed to residents through this program.



Another way in which OCRRA reaches out to neighborhoods with low set-out rates is by carrying out neighborhood "Blue Bin drops". During these events, recycling staff drive through neighborhoods on trash day and place a Blue Bin at the curb of residences that do not have one out. In 2009, OCRRA did two of these drops in suburban and urban neighborhoods, distributing a total of about 600 Blue Bins. Set-out rates generally improved following the neighborhood "Blue Bin drops". *(At left: OCRRA's Recycling Team prepares to drop off Blue Bins in an urban neighborhood)*

OCRRA's staff also participated in the Annual Youth Day Barbecue in August 2009, which is a large community event focused on providing children in need with school supplies. Thousands of parents were encouraged to take a Blue Bin and recycling instructions home along with their child's free school supplies. OCRRA gave out almost 1,000 Blue Bins in the span of just a few hours.

Apartment Recycling

Onondaga County has hundreds of multi-unit apartment buildings, which present a unique set of challenges to recycling, such as space constraints, lack of information, and inconvenient recycling bins locations. To assist these residents in 2009, 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 containers (*at right*), as well as presentations at group meetings.



Business Recycling

OCRRA's Recycling Specialists regularly call on businesses in Onondaga County to help them design effective collection systems for recyclables. During 2009, OCRRA continued to provide free consultations, as well as free containers and highly visible decals to all types of businesses and apartment buildings.

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 OCRRA with an opportunity to identify areas of needed improvement. The Blue Ribbon Recycler Program provides an incentive for businesses to achieve recycling excellence by offering them recognition that they can then share with their clients and customers. Within the 120 days that the program was in effect in 2009, there were 80 applicants and 23 certificates awarded.



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 were a major focus of OCRRA's public education in 2009. OCRRA's Recycling Educator and Recycling Specialists provided over 600 presentations and assemblies for schools throughout the county in 2009. In addition, the Agency gave out its annual Vonnell Mastri award in June, honoring the school with the best recycling program in the city of Syracuse. In 2009, the award went to Levy School, in the Syracuse City School District.

OCRRA's largest school recycling program in 2009 was the "School Recycling Pledge". Community-based social marketing research indicates that people who sign a pledge promising to perform a particular behavior will be more likely to actually do the behavior. As a result of this research, OCRRA had large, framed pledges custom-printed for each of the 157 schools in Onondaga County (*sample pledge at left*). These encourage a teamwork approach to recycling and illustrate each school's commitment to keeping recyclables out of the trash. At the end of 2009, 112 pledges were distributed, with very positive feedback about increased awareness and recycling volume.

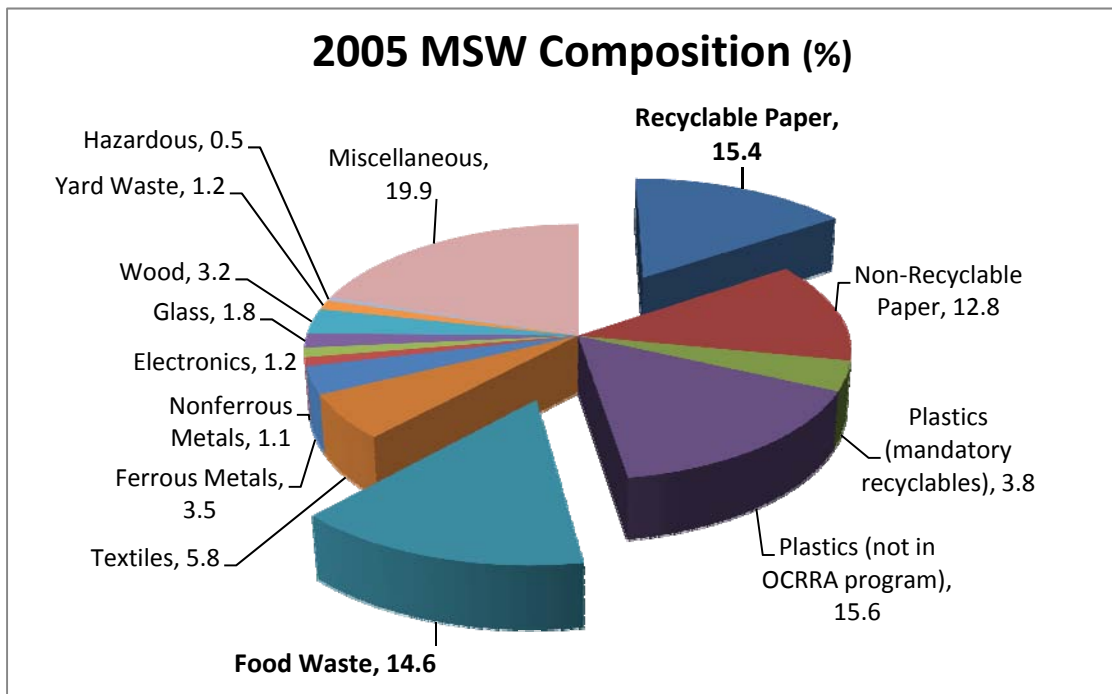
2005 Waste Quantification & Classification

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.

Figure 3



4. Highlights of the 2009 OCRRA Recycling Program

➤ COMMUNITY COLLECTION CENTER

In 2007, OCRRA officially opened the Community Collection Center (C3), a 9,000 ft² commercial warehouse-type space that allows for year-round collection of certain recyclable materials. This facility continued to be open to residents three days per week in 2009.

At C3, residents are offered the opportunity to drop-off electronics, including televisions, computer components, old VCRs and stereos; books; batteries; fluorescent light bulbs; cell phones; and smoke detectors three days a week. The materials go to various facilities for processing and recycling. The following highlights the amount of each material collected in 2009.



Books

Over 233,000 pounds (116 tons) of unwanted books were sent for recycling from C3 in 2009. In an effort to encourage reuse, groups from libraries, schools, and non-profits are invited to sort through old books at C3 to take for their own enrichment and literacy missions in the community before they are shipped out for recycling. Therefore, hundreds of books each year are removed for reuse prior to recycling.

Electronics

To advance the safe management of old electronics and remove them from the waste stream, OCRRA provides an option for residents to drop off equipment at C3 year-round. The program ensures that any recyclable or reusable material will be properly recycled or refurbished and those that cannot be will be disposed of safely at an approved site. OCRRA pursued due diligence in 2009 to ensure that its current vendor is in fact managing the material in a safe, legal, and environmentally sound manner. This was confirmed and OCRRA continues to send its collected e-waste material to its current vendor.

Onondaga County residents were able to drop off old computer equipment at C3 throughout the year. From January to August, all electronics were received at C3 at no cost to the residents; however, as TV drop-off volume increased due to the federally-mandated digital turnover in June 2009, a fee was instituted to help OCRRA cover the costs of recycling these items. Beginning in September 2009, a \$10 fee was applied to all TVs, computer monitors, and laptops. The volume of electronics collected at C3 significantly increased before the fee began and significantly decreased after September 1.

In 2009, OCRRA received more electronics for recycling than any previous year: **1,246,522 pounds** (623 tons). Since the e-waste recycling program's inception in 2002, OCRRA has collected about **3.5 million pounds of e-waste**. OCRRA will continue to provide options for residents to recycle e-waste; however the Agency is steering residents toward other local electronics recycling companies and also actively supports Environmental Product Stewardship (EPR). EPR requires that manufacturers be responsible for the end-of-life management of its products, either physically or financially. EPR legislation in New York State would take the financial burden off local governments to recycle e-waste, which is an ever-increasing sector of waste management.

Fluorescent Light Bulbs

Fluorescent light bulb use is on the rise due to high energy costs. However, these energy efficient bulbs contain mercury, a potentially harmful chemical. To encourage residents to dispose of these properly and keep mercury out of the trash, OCRRA allows residents to drop off old bulbs at C3. In 2009, over 5,500 bulbs were collected at C3 and disposed of properly.

OCRRA also partners with local hardware stores to provide residents with alternative locations to drop off old bulbs. There are 15 participating stores throughout the county. Over 6,300 bulbs were collected in 2009 at these stores.



By bringing fluorescent bulbs to C3 or a participating hardware store, Onondaga County residents kept almost 12,000 mercury-containing bulbs out of the trash.

Cell Phones

Working and non-working cell phones are collected at C3 for recycling. All of the cell phones collected at C3 are sent to “Cell Phones for Soldiers”, a program which has the phones remanufactured into new components or recycled. The proceeds are then sent, in the form of pre-paid cell phone cards, to US soldiers currently serving overseas. In 2009, OCRRA collected and sent over 600 pounds of cell phones to this organization.

Smoke Detectors

Smoke detectors contain minuscule amounts of hazardous chemicals. To ensure proper disposal, OCRRA accepts these items at C3. In 2009, approximately 400 smoke detectors were collected and properly disposed of.

Batteries

Alkaline and various non-alkaline batteries are accepted at C3 year-round. Residents can also drop off old batteries at all Onondaga County Wegmans grocery stores. In addition, OCRRA maintains two drop-off centers at its transfer stations and an annual July curbside collection of batteries. In 2009, over 154,000 pounds of batteries were collected and recycled; over 5,000 of which were collected at C3.

➤ YARD AND FOOD WASTE COMPOSTING

OCRRA’s two compost sites offer a convenient service for residents, municipal, and commercial entities to drop-off their yard waste from April to November. Finished compost from the previous year is available for residents to take home as well. Residents purchase a car-window sticker for \$10 which allows them to drop off yard waste and take away compost for the full season. In 2009, over 3,400 residential compost passes were sold; 10% more than 2008. The number of commercial loads received at the compost sites increased about 18% from the previous year.

Approximately 3,400 tons of yard waste was delivered to the two sites in 2009 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 a static aerated system, 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 2009, 280 tons of commercial food waste was processed at OCRRA’s Amboy site. Included in this total are wastes from the New York State Fair vendors and local zero waste community events. *(At right: Food waste is unloaded at the Amboy compost site.)*



OCRRA's composting program had an extremely successful year. Not only was usage higher than previous years, increased revenue was generated from the sale of high-quality compost to commercial users. And, the Agency is well on its way to achieving its goal of composting 10,000 cubic yards of food waste annually from grocery stores, hotels, restaurants, hospitals, and schools by 2015.

➤ **HOUSEHOLD HAZARDOUS WASTE DAYS**



Household Hazardous Waste (HHW) Days continue to be one of the most popular services the OCRRA offers. These events allow residents to safely dispose of their hazardous waste, keeping these materials out of the waste stream. Four HHW Days were held in 2009, serving over 2,000 households. Direct costs included the fee charged by the vendor to conduct the event; battery and propane cylinder handling; and lab fees for testing the paint collected. Indirect costs included OCRRA personnel for the day of the event, as well as the hours of preparation for advertising, taking reservations, and sending out

information/confirmation packets to each of the hundreds households who made appointments for each event. (Above: Environmental Products & Services employees unload residents' hazardous waste at one of OCRRA's 2009 Household Hazardous Waste Days)

Among the hazardous waste collected at these events in 2009 were: approximately 11,000 gallons of adhesives and resins; 2,600 gallons of oil-based paint; 8,700 feet of fluorescent light bulbs; 400 compact fluorescents bulbs; and 1,300 gallons of flammable liquid.

➤ **MERCURY THERMOMETER EXCHANGE PROGRAM**

OCRRA continued a mercury thermometer exchange program at the Rock Cut Road Transfer Station. The Agency teamed up 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 the Agency's household hazardous waste 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. In 2004, mercury thermostat collection was added to this program.

➤ **RECYCLED PAINT GIVE-AWAY**

This year, the Agency again reached out to hundreds of community organizations, inviting them to use recycled paint reformulated from unwanted paint. As a result, 450 gallons of recycled and reprocessed paint were provided to dozens of non-profit agencies, municipal entities, park systems, and other human service organizations. Organizations that received the recycled paint included: Westcott Community Center, Habitat for Humanity, and the Rosamond Gifford Zoo.

➤ SIXTH ANNUAL COMMUNITY SHRED-O-RAMA



In response to an increasing public concern over identity theft, OCRRA held its Fifth Annual Shred-O-Rama at Alliance Bank Stadium in Syracuse. At this October event, over 900 residents dropped off almost 20 tons of confidential documents to be shredded. Paper was shredded on site and then recycled by two local shredding companies: ProShred and Confidata. OCRRA also continues to operate a commercial shredding machine for residential use at the Rock Cut Road transfer station. *(At left: A Confidata employee helps residents unload their confidential papers at the 2009 Shred-O-Rama)*

➤ AIR CONDITIONER AND PROPANE TANK COLLECTION DAY

OCRRA held its sixth no-charge collection day for air-conditioners, dehumidifiers, and propane tanks in June 2009. Approximately 850 residents brought in a total of 800 air conditioners and dehumidifiers for safe removal of refrigerants (chlorofluorocarbons [CFCs]). Almost 700 propane tanks were collected as well. OCRRA partnered with NYSERDA (New York State Energy Research and Development Authority) to stage this event and share the costs. A local company, Oneida Lake Energy Products collected the propane tanks and helped with the event.

➤ WASTE DISPOSAL COST RELIEF FOR LOCAL CHARITIES

In 2009, OCRRA again provided a "recycling credit" to the local Rescue Mission, Salvation Army, and Catholic Charities for each documented ton of material (clothing, furniture, etc.) recycled through these human service organizations. The recycling credits, in the amount of \$10.00 per ton, were credited towards these organizations' monthly waste disposal fees through the OCRRA system, with certain limitations. In 2009, OCRRA provided these organizations with approximately \$44,000; effectively relieving them of most of their waste disposal costs. OCRRA's Board also approved a mini-grant program of up to \$300 per year for the purchase of commercial recyclables collection services by small charities and non-profits. Baltimore Woods Nature Center, Girl Scout Council of Central New York, and Huntington Family Centers were among the groups that benefited from this program.

➤ BOTTLE BILL LAW EXPANSION

The return rates for deposit cans and bottles in Onondaga County ranged from 77% to a whopping 95% percent in a 1998 study. But the *discard* rates for non-returnable containers in Onondaga County, a national recycling leader, ranged from 68 to 87%.

OCRRA took a proactive role to change the discard statistics by supporting an expanded New York State bottle bill deposit law to include non-carbonated products such as water, juices, teas and sports drinks. In 2009, OCRRA obtained thousands of signatures from residents who support the expansion of the bottle bill through petition signings at various local events, such as the New York State Fair.



New York State's Bigger Better Bottle Bill, which added water and non-sugar flavored water bottles to the list of redeemable containers, passed in 2009 and went into effect in November. OCRRA hopes that as

a result of this new law, there will be more bottles returned and ultimately recycled, as well as less bottles littering roadways and parks.

➤ EXTENDED PRODUCER RESPONSIBILITY

Extended Producer Responsibility (EPR; also called Product Stewardship) is a legislative priority for OCRRA. EPR requires that manufacturers be responsible for the end-of-life management of its products, either physically or financially. EPR legislation in New York State would take the financial burden off local tax payers or local rate payers to recycle materials, particularly e-waste (which has become an expensive and burdensome material for local waste authorities to handle). Twenty states in the US, including Texas and West Virginia, now have product stewardship requirements for electronics.

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 a New York State EPR law, particularly for e-waste, that will ease financial pressure for local waste agencies but still ensure that materials will be recycled in the proper manner.

➤ COMMUNITY EVENTS AND PUBLIC OUTREACH

OCRRA is committed to maintaining high levels of community participation through its recycling program. In 2009, OCRRA's recycling team participated in numerous area events and fairs, including the



New York State Fair (*see picture, at left*), Taste of Westcott Street, CNY Blooms, and the Chamber of Commerce Business Show. A variety of recycling information was distributed including Blue Bins, recycling instructions, and numerous recycling-related promotional items. Thousands of people were contacted through these events. The most attended event that OCRRA participated in was The New York State Fair, with thousands of visitors to the OCRRA booth over the course of 12 days. To help staff the booth, approximately 40 community volunteers worked with OCRRA employees to hand out information and answer recycling questions.

In addition to events, OCRRA Recycling Specialists conducted many 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 to the public on recycling instructions, as well as the importance of environmental stewardship. OCRRA Recycling Specialists also shared their expertise with the recycling community by presenting at various conferences in 2009, including the Solid Waste Association's Recycling Conference in Lake George and the NYSAR³ Conference in Cooperstown.

Recycling Containers

OCRRA continued to distribute free recycling containers to hundreds of schools, businesses, restaurants, and parks to encourage recycling of paper and beverage containers in 2009.

In 2009, OCRRA purchased and received 120,000 new Blue Bins for the community. These are continually distributed to residents, schools, and businesses via local towns and villages and various neighborhood distributions. In 2009, OCRRA distributed 38,000 Blue Bins to residents and municipal highway departments.

Earth Day

OCRRA's Annual Earth Day Litter Cleanup is a community-wide two-day event, occurring in April each year. In 2009, the event was the largest in OCRRA history, with over 137,000 pounds of litter collected by over 11,800 volunteers. Volunteer groups consisted of schools, Girl and Boy Scout troops, community and neighborhood groups, and businesses.

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

- ♻️ A recycling drop off six days/week, year round for mandatory recyclables at the Agency transfer stations. This service includes a no-charge drop-off for household scrap metal and office paper from small businesses;
- ♻️ Submitted grants to support a variety of Agency programs, including advertising and public education, food-waste composting, household hazardous waste collection, recycling containers, and recycling personnel costs;
- ♻️ Participation in solid waste associations - All members of the Agency's recycling team are members of the New York State Association of Recycling, Reduction and Reuse (NYSAR³).

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
- Jeff Singer, Allison Stuart, and Amy Berger; Recycling Aides
- Elaine Van Avery; Recycling Educator (Contracted Service Provider)
- Tom Furgeson; Compost Site Technician
- Seasonal Compost Site gatekeepers