



2010 DPW Annual Residential Recycling Report

Submitted 5/09/11

Introduction

2010 was a milestone year for Milwaukee's recycling program. The citywide implementation of guaranteed and increased recycling service schedules helped facilitate the first year-over-year increase in recycling since 1997. Over the eight months of the mostly every-third week schedule, recycling pounds per household increased 7.4% over the same period a year before. The winter's non-guaranteed collection months were considerably lower than in 2009, diluting the effect of the other months' gains, but still resulting in a full year-over-year increase of 3.6% on a pounds per household basis. This increase came despite the continued decline in newspaper. The Newspaper Association of America reported an 8% decline in newsprint consumption from 2009 to 2010. That the City's recycling tonnage still rose in 2010 is a tribute to the increasing participation of Milwaukee residents in the curbside program.

The Department of Public Works continues planning towards an implementation of single stream or "single sort" recycling. Greater efficiencies of single stream collection are expected to assist in further improving frequency of recycling collection service. This will be necessary to drive greater recovery of recyclables and diversion from landfills. Two options for the processing of single stream material are still being studied. These include investing in new processing equipment in the City's existing Materials Recovery Facility or converting that facility to a transfer station with processing provided at a third-party facility.

Recyclable commodity prices essentially returned to their 10-year average in 2010 and brought a revenue share to the City of Milwaukee of nearly a million dollars, helping offset a portion of the cost of providing residential collection service. The price outlook remains strong for the foreseeable future.

-Rick Meyers, Recycling Specialist, DPW



LET'S MAKE MILWAUKEE CLEAN & GREEN.

MilwaukeeRecycles.com

Recycling Program Overview—2010

Recycling Program Enhancements and Achievements

- **Recycling revenue in 2010 was \$987,860, an increase of 68%** over the prior year, due to continued rebound in commodity prices from the fall of 2008 crash
- Implementation of improved collection schedule: guaranteed dates for residents city wide, every three weeks for most households
 - **Recycling pounds per household increased by 7.4%** during the guaranteed collection season of April through November 2010 when compared with the same period in 2009
 - Increased service resulted in the **first year-over-year rise in residential recycling tons since 1997**
 - Improved customer service and reduced workload on call center employees: during the guaranteed collection season of April through November 2010, total **“pickup day request” calls decreased by 96%** from 2,377 to 103 when compared with the same period in 2009
- **Met the *Recycle For Good* campaign goal of increasing recycling by 30% in a targeted inner city area** (on a pounds per household basis)
- 7th straight year of collecting most aluminum cans in the 2010 U.S. Conference of Mayors' *Cans for Cash – City Recycling Challenge*

Outreach and Education

- *Recycle For Good* campaign (see page 4)
- 2010 fall mailer – continued newspaper format for more content, reduced cost. Access at www.MilwaukeeRecycles.com (Recycling & Waste Reduction Newsletter)
- Educational **tours of the City's Materials Recovery Facility increased 7%** over 2009 (2,454 students and 396 adults in 2010)
- The City helped forge a recycling educational partnership between Milwaukee Public Schools, Waste Management, and KGMB that impacted hundreds of students through classroom visits
- In 2010 a new recycling display was developed and debuted at Irish Fest's Greenwish Village, receiving hundreds of visitors. The display features a refreshed design, information on waste reduction and recycling, details on accepted and prohibited items in Milwaukee's curbside recycling program, illustrates products made from recyclables and contains other updated features
- Holiday Waste Reduction and Recycling Press Event (December): Event featured Mayor Tom Barrett and Santa Claus and encouraged residents to reduce and recycle as much as possible during the holiday season.



The new *Recycle For Good* educational display on recycling and waste reduction

Compliance Enforcement

Property Type	Written warnings	Citations	Amount
1-4 units residential	904	534	\$15,220.00
5+ units residential	9	13	\$3,309.56
Non-residential (business)	15	6	\$911.12

Greater recovery of resources through Self-Help Centers

- Implementation of program to divert residential tear-off asphalt roofing shingles from landfills
 - **2,500 tons of shingles were collected and recycled into hot-mix asphalt, saving the City \$26,000**
- **Electronics recycling collection expanded** on July 1st 2010 to include TVs and other electronic items banned from landfills. In all, **over 1 million pounds of electronics were collected during 2010.**
 - Shortly after expansion, logistics at both collection sites were restructured to accommodate still more growth in the future



Self-Help Center shingles recycling program increases landfill diversion

Future Initiatives

- Continued planning for program improvements and increased diversion
 - Increase winter recycling collection frequency
 - Switch to single stream recycling
 - Potentially switch to bi-weekly collection schedule upon full single stream conversion and/or switch to Pay As You Throw garbage billing
 - Determine whether to invest in new processing equipment at City facility or to transfer haul for processing elsewhere

Recycle For Good - 2010 Campaign Update

Background

The citywide *Recycle For Good* Campaign began its third year in the fall of 2010. Designed to increase recycling participation and raise awareness, the campaign was developed according to the results of social marketing research that included focus groups and phone surveys. The citywide promotional campaign places special emphasis on areas of lower participation.

2010 Neighborhood Campaigns and Events

- Carried out through a partnership with Keep Greater Milwaukee Beautiful and various



Canvassing during the 2010 *Recycle For Good* neighborhood campaign

community groups.

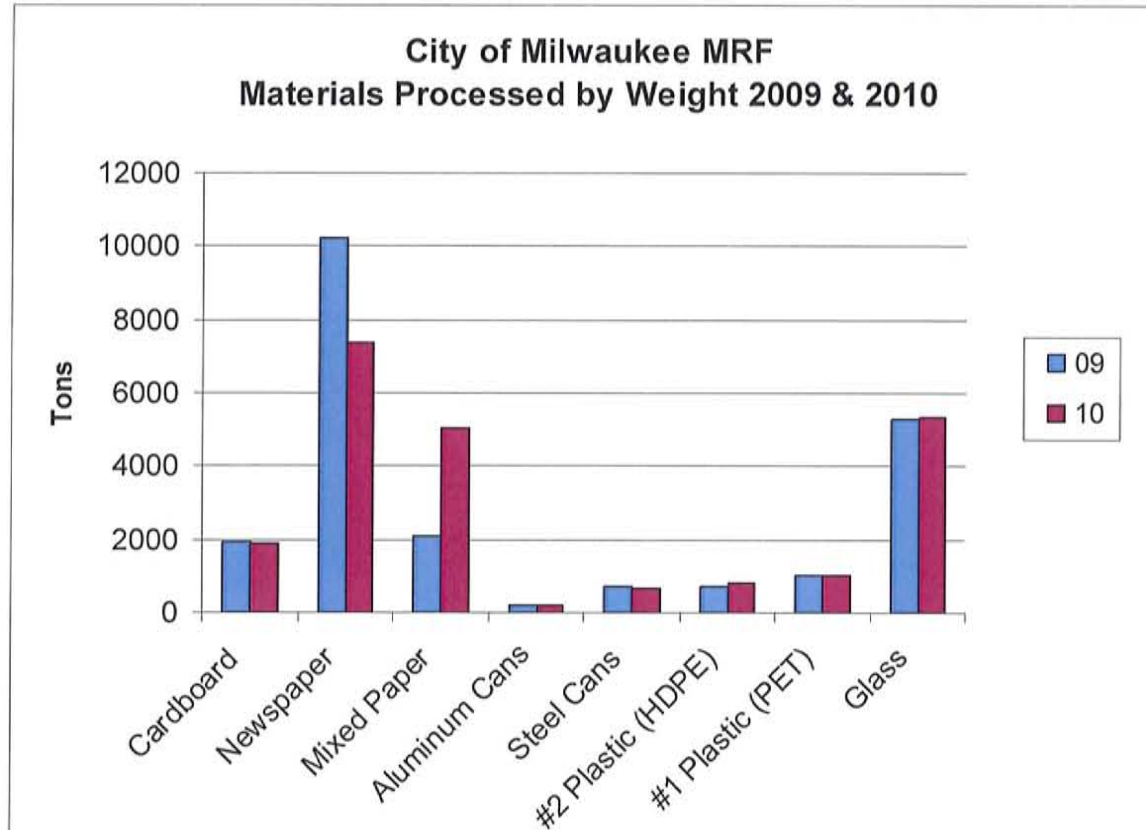
- Grassroots canvassing of neighborhoods within the target area, distributing recycling totes and collection schedules
- Live recycling promotion event (July): WDDW 104.7 “La Gran D” staff onsite at event encouraging neighborhood residents to bring their paper and cardboard for recycling; participants entered to win prizes

Campaign Advertising

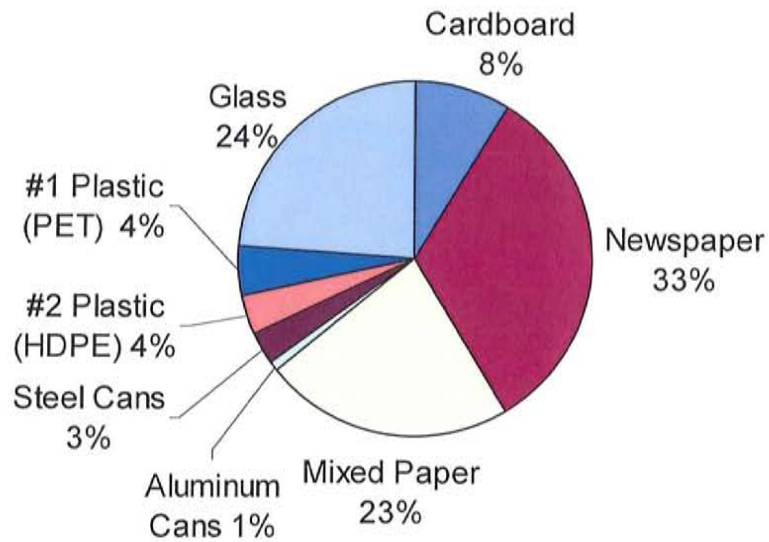
- The *Recycle For Good* outreach & education campaign continued with new radio, print and online advertisements
- Traditional media, community-based outreach, and social media
- Continued exposure through outdoor advertising with 12 recycling packers featuring RFG logo and photography
- New in 2010, online contests were launched on the websites for Jammin’ 98.3 and OnMilwaukee.com. The public was encouraged to pledge to improve recycling habits and in return be entered to win prizes such as cinema and theater tickets, and gift certificates to local stores and restaurants; over 640 people pledged during 2010



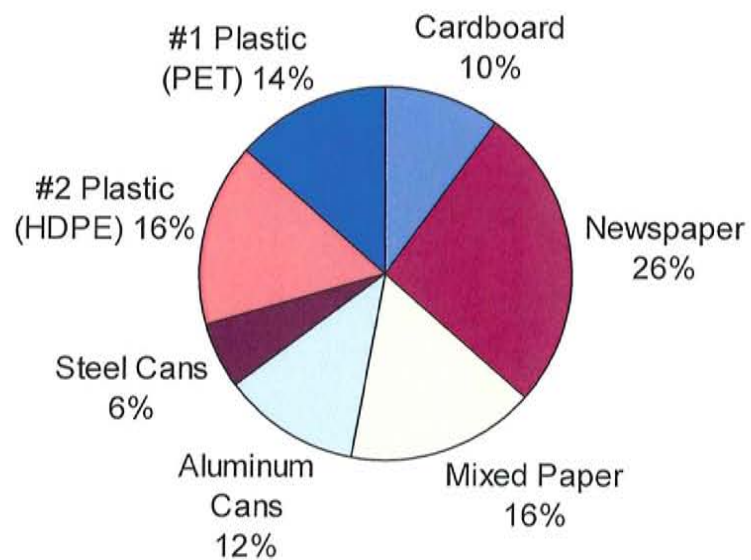
2010 *Recycle For Good* print advertisement for improved collection schedule



**City of Milwaukee Materials Recovery Facility
Commodities Processed by Weight 2010**



**City of Milwaukee Materials Recovery Facility
Revenue from Recyclables by Material 2010**



2010 Recycling Weights Average Lbs per Household

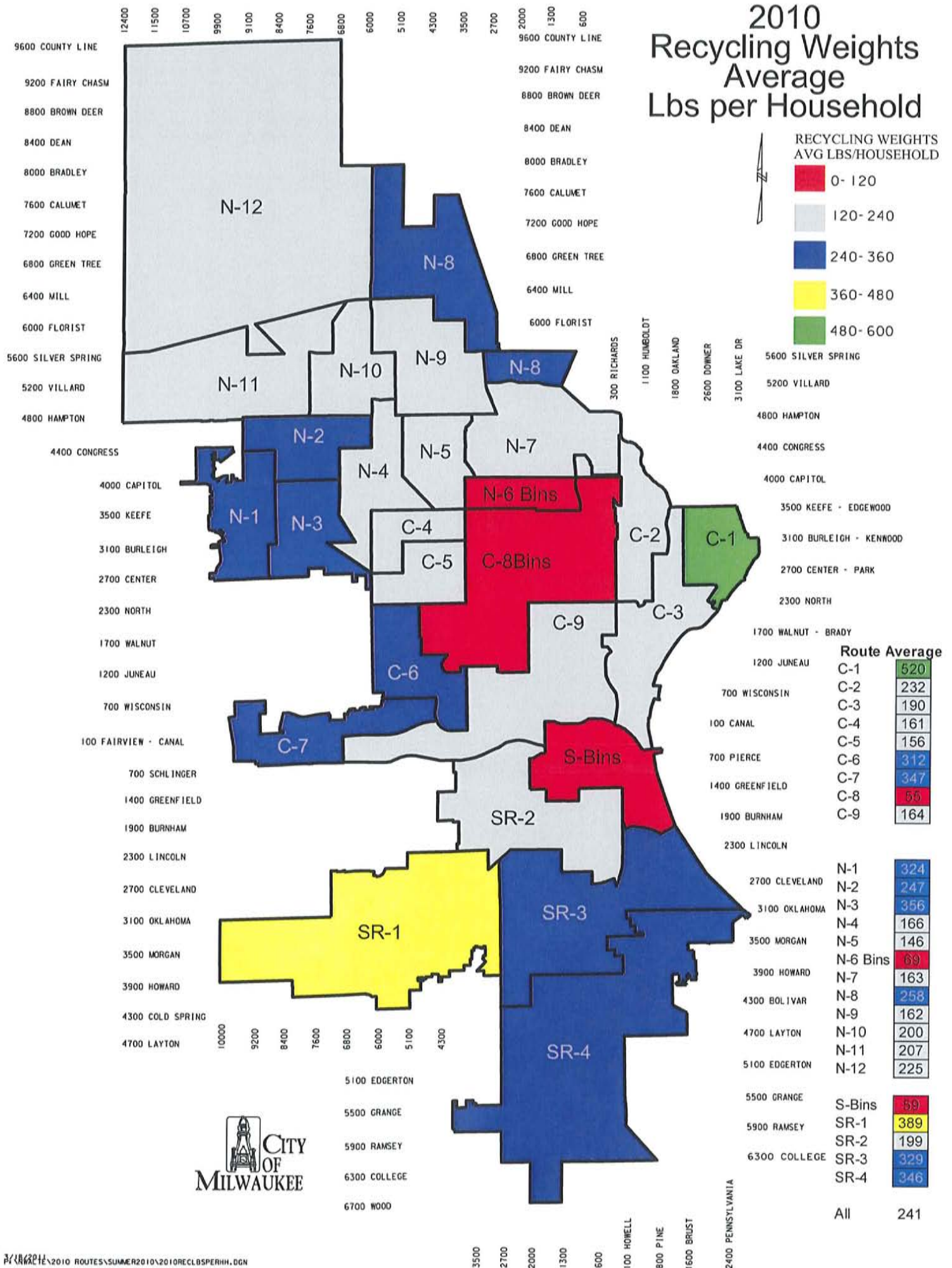


Table 1
Residential Tons Collected
2009 - 2010

	<u>2009</u>	<u>2010</u>	<u>Change</u>	
			<u>Tons</u>	<u>Percent</u>
Recycling Materials - household				
Combined Paper	12,280	12,400	120	1.0%
Corrugated Cardboard	1,925	1,895	-30	-1.6%
Aluminum Cans	222	214	-8	-3.6%
Steel Cans	710	676	-35	-4.9%
Glass Containers	5,267	5,324	56	1.1%
Plastic Containers	1,769	1,809	40	2.2%
Subtotal	22,174	22,317	143	0.6%
Recycling Materials - other residential*				
Appliances with Refrigerants	245	157	-88	-35.8%
Lead Acid Batteries	36	18	-17	-48.6%
Waste Tires	700	540	-160	-22.8%
Waste Oil	195	138	-57	-29.2%
Electronics	353	514	162	45.8%
Scrap Metal	1,461	811	-650	-44.5%
Miscellaneous	58	54	-4	-6.2%
Subtotal	3,046	2,232	-814	-26.7%
Yard Waste				
Subtotal	36,113	30,631	-5,482	-15.2%
Total Diverted	61,333	55,180	-6,152	-10.0%
Household Solid Waste				
Cart collection (1-4 unit HHs)	178,171	177,158	-1,013	-0.6%
Dumpster service (>4 unit HH)	19,220	19,278	58	0.3%
Skid loader	4,203	2,730	-1,474	-35.1%
Clean & Green program	1,763	1,850	87	4.9%
Miscellaneous	1,718	1,688	-30	-1.7%
Subtotal	205,075	202,705	-2,371	-1.2%
Total Residential Solid Waste	266,408	257,885	-8,523	-3.2%

*Does not include 6,382 T of concrete and asphalt shingles recycled in 2010 through the Self Help Centers. The State of Wisconsin does not yet include these categories as residential in annual reporting.

Table 2
Residential Program Metrics
2009 - 2010

	<u>2009</u>	<u>2010</u>	<u>Change</u>
Effectiveness Measures			
Household Material Recycling Rate*	8.3%	8.7%	0.3%
Yard Waste Recycling Rate	13.6%	11.9%	-1.7%
Other Materials Recycling Rate**	1.1%	0.9%	-0.3%
Total Recycling Rate	23.0%	21.4%	-1.6%
Household Materials Recycling lbs. Per Household	232.79	241.09	8.31
	<i>Percent change 2009 to 2010:</i>		3.6%

Efficiency Measures - Household Recycling Only

Residential Recycling Program Costs (reported to State)	\$ 9,025,788	\$ 8,174,725	\$ (851,063)
State Cost Sharing/Grant Revenue	\$ 3,182,595	\$ 3,348,450	\$ 165,854
Recyclable Commodity Sales Revenue	\$ 588,684	\$ 987,860	\$ 399,176
Avoided Landfill Disposal Costs	\$ 715,129	\$ 809,367	\$ 94,238
Subtotal of offsets	\$ 4,486,408	\$ 5,145,677	\$ 659,269
Net Costs - Residential Recycling Program	\$ 4,539,380	\$ 3,029,048	\$ (1,510,332)
Net Cost Per Ton - Res. Recycling Program	\$ 204.72	\$ 135.73	\$ (68.99)

*The Comptroller's Office method of computing Household Solid Waste Tons includes garbage tons from the City's >4 unit multi-family dwelling customers, a sector not serviced by the City with recycling collection. Since the City does not have recycling tonnage figures for these customers serviced with recycling by the private sector, the resulting recycling rate is artificially low.

**Does not include 6,382 T of concrete and asphalt shingles recycled in 2010 through the Self Help Centers. The State of Wisconsin does not yet include these categories as residential in annual reporting.

Table 3
Recyclables Processing Financials Comparison
2009 - 2010

*This table relates to processing of residential recyclables after collection.
It does not include collection costs or recycling grant revenues.*

	<u>2009 Total</u>	<u>2010 Total</u>	<u>Change</u>	<u>% Change</u>
Commodity Sales Revenue				
Revenue/Ton (Market Value)	58.41	91.82	33.41	57.2%
City's Share (Rev/T Received from Contractor)	26.42	44.13	17.71	67.0%
Total revenue to City	\$ 588,684	\$ 987,860	\$ 399,177	67.8%
Processing Costs				
Processing per ton rate	42.48	42.30	-0.18	-0.4%
Processing tons	22,284.53	22,386.63	102.10	0.5%
Processing costs	\$ 956,168	\$ 947,501	\$ (8,667)	-0.9%
Net Revenue				
Net revenue (received)	\$ (367,484)	\$ 40,360	\$ 407,844	-111.0%
Net revenue per ton	(16.49)	1.80	18.29	-110.9%
Avoided Disposal Costs				
Landfill costs per ton	32.09	36.15	4.06	12.6%
Landfill costs avoided	\$ 715,129	\$ 809,367	\$ 94,238	13.2%
Total Benefit				
Total Net benefit	\$ 347,646	\$ 849,727	\$ 502,081	144.4%
Total Net benefit per ton	\$ 15.60	\$ 37.96	\$ 22.36	143.3%

Market price for the mix of processed residential recyclables returned to its 10-year average after declining severely in the fall of 2008 and slowly recovering over most of 2009. In 2010, the City of Milwaukee achieved a **net benefit of nearly \$850,000** when recyclables processing costs are compared to recyclables revenue and avoided landfill disposal costs.