



Our mission is to reduce waste today through innovative resource management and to reach a waste-free tomorrow by demonstrating that waste is preventable, not inevitable.

February 19, 2008

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Public Works, Environment, & Transportation Commission:  
City of Roseville  
2660 Civic Center Drive  
Roseville, MN 55113-1899

Dear Commissioners:

Eureka Recycling is pleased to present the 2007 report on Roseville's recycling program. As a nonprofit organization with a mission to demonstrate that waste is preventable, not inevitable, we value our partnership with the city of Roseville and are proud to be part of the city's efforts to continually improve its recycling program.

In 2007, Roseville made the important decision to switch to weekly collection of recycling. This decision greatly increased the convenience and environmental benefits of Roseville's recycling program. In addition Roseville and Eureka Recycling worked with recyclers to increase their knowledge about what is and is not recyclable and added collection of milk cartons and juice boxes to the program. Eureka Recycling also focused on growing the multifamily building (apartment) recycling program. This work resulted in an increase in the amount and quality of materials recycled in Roseville and a significant revenue share back to the city.

Here are the highlights of 2007's accomplishments:

#### **Switch to Weekly Pays Off**

Roseville residents significantly increased the amount of materials they recycle by moving to weekly collection. **The added capacity that that weekly collection offered made possible an impressive 4.6% increase in curbside tons collected.**

We're also happy to report that as predicted, the environmental benefit from increased recycling far outweighed the impact of additional collections. **The additional materials recycled accounted for over 481 metric tons of carbon reductions**

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while the additional collections in Roseville increased carbon emissions by only 21.42 metric tons!

### **Curbside Education and the Decreased Residual Rate**

In 2007, Eureka Recycling focused on communicating with current recyclers to make sure residents were fully aware of all of the materials they could recycle (including the addition of milk carton and juice boxes) and to address contamination issues we experienced at the curb (non-recyclable material in with the recycling). These ongoing education efforts in the curbside recycling program **resulted in an impressive decrease in Roseville's residual rate from 0.89% in 2006 to 0.15% in 2007**. This increased the amount of material that was truly recycled in Roseville and demonstrates that residents are better informed on what is recyclable.

### **Increased Revenue Share**

In 2007 Roseville saw an incredible increase in its revenue share for recycled material, with **\$115,295.37 going back to the city this year!** The values of the commodities have increased as global demand increases for our limited natural resources. Thanks to the inclusion of revenue sharing in their contract, Roseville is able to realize the economic benefits of the value of the resources collected in their community.

### **Multifamily Recycling Program**

**Roseville has achieved 100% participation from Roseville properties in the multifamily program.** Eureka Recycling worked closely with Roseville staff to gather current contact information for every multifamily building and contact each building. Having this communication allowed Eureka Recycling to work directly with the buildings to adjust service levels and work with building managers to identify and solve any problems at the building. Improving the current buildings and adding all of the remaining complexes resulted in an increase of 303 households to the multifamily program. **This work resulted in a significant 22% increase in tons collected from multifamily properties.**

### **Glass Recycling**

Eureka Recycling is committed to the highest and best use for all of the recyclable material collected in Roseville. While other programs may send their glass for use as landfill cover or road fill, almost all of **Roseville's glass is recycled into new glass bottles, thus having the maximum positive benefit in terms of energy saving and pollution reduction.** The successes in bottle to bottle recycling will only increase in 2008 as Eureka Recycling completes installation of an optical sort system at its facility.

In addition to these key highlights, Eureka Recycling continues to provide the city of Roseville with detailed tracking and reporting to help the city meet the goals of its recycling program. This data allows us to measure progress as we move forward and identify the areas to prioritize as part of our annual work plan.

From our close interaction with city staff, attendance at neighborhood events, and hundreds of conversations with Roseville residents, we can see that Roseville is strongly committed to increasing the environmental benefits of their recycling program. We believe the city is now well positioned to implement our recommendations for the 2008 work plan in an effort to further increase its recycling rate in 2008.

We look forward to working together with Roseville as we work toward a waste-free tomorrow. If you have any questions, please contact us at (651) 222-7678.

Sincerely,

Susan Hubbard  
CEO and Co-President

Tim Brownell  
COO and Co-President

CC Tim Pratt, Communications Specialist  
Duane Schwartz, Public Works Director



# City of Roseville Year-End Recycling Report 2007

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## Tonnage Summary by Collection Route

The City of Roseville’s overall recycling rate increased 6.9% in 2007. The majority of this increase is due to the switch to weekly collection in the curbside program, which yielded a 4.6% of materials recycled at the curb. This remarkable increase makes the city of Roseville an exception among cities around the country that are seeing stagnating or decreasing recycling rates.

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Route *	2006 # Households	2006 Total Tons	2006 Lbs per HH or Unit	2007 # Households	2007 Total Tons	2007 Lbs per HH or Unit
Monday	2,675	852	637	2,675	893	667
Tuesday	1,524	464	608	1,524	500	655
Wednesday	1,562	454	582	1,562	457	584
Thursday	2,490	706	567	2,490	736	590
Friday	1,261	482	765	1,261	507	803
<b>Curbside Total</b>	9,512	2,958	622	9,512	<b>3,094</b>	<b>649</b>
Multifamily	5,367	483	178	5,670	587	207**
<b>Roseville Total</b>	<b>14,879</b>	<b>3,441</b>	<b>463</b>	<b>15,182</b>	<b>3,681</b>	<b>484</b>

\* Because collection is now weekly, the numbers of 2006 are combined by collection day instead of the biweekly routes.

\*\* For detailed multifamily report by building, see Appendix A.

## Curbside Program

On April 22, 2007, Eureka Recycling began weekly collection, resulting in a 4.6% increase. Residents now have the extra storage capacity for their recyclables that weekly collection allows and, as predicted, they recycled more. In January 2007, Eureka Recycling also added a new material (milk cartons and juice boxes) to the program.

## Multifamily Program

Overall, from 2006 to 2007 the number of multifamily units recycling on the program increased by 5.5%, resulting in 100% participation of Roseville properties in the program. Tonnage increased by 22% since 2006, as participation increased and multifamily residents recycled more. The customer service team at Eureka Recycling continues to work with on-site

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contacts to address any service issues, providing education, and helping to match cart and dumpster capacity to the recycling needs particular to each building.

### Annual Composition Study

Eureka Recycling conducted the annual composition study of Roseville’s materials over a six-week period from January to February 2007 (before the April 2007 switch to weekly collection). Eureka Recycling collected a total of 48,265 pounds of containers (bottles and cans), and 158,300 pounds of mixed papers. (See Appendix B for details about the composition study.)

City of Roseville 2006 Composition				City of Roseville 2007 Composition			
Papers	% of Total Tonnage	Containers	% of Total Tonnage	Papers	% of Total Tonnage	Containers	% of Total Tonnage
News Mix	63.98%	Total Glass	14.89%	News Mix	56.46%	Total Glass	15.15%
Cardboard	6.71%	Amber Glass	2.01%	Cardboard	13.23%	Amber Glass	1.46%
Boxboard	2.37%	Flint Glass	3.32%	Boxboard	7.60%	Flint Glass	3.84%
Wet Strength	0.36%	Green Glass	2.74%	Wet Strength	0.10%	Green Glass	3.59%
Phone Books	1.33%	Mix Glass	6.82%	Phone Books	0.11%	Mix Glass	6.26%
Textiles	0.40%	Steel Cans	2.64%	Textiles	0.00%	Steel Cans	2.00%
Residual	0.24%	Aluminum Cans	1.48%	Residual	0.11%	Aluminum Cans	1.10%
<b>TOTAL</b>	<b>75.4%</b>	Total Plastics	4.70%	<b>TOTAL</b>	<b>76.6%</b>	Total Plastics	4.01%
		PET	2.34%			PET	2.05%
		HDPE-NAT	1.11%			HDPE-NAT	0.98%
		HDPE-COL	1.25%			HDPE-COL	0.98%
		Residual	0.89%			Residual	0.15%
		<b>TOTAL</b>	<b>24.6%</b>			<b>TOTAL</b>	<b>22.4%</b>

The 2006 composition study was completed only one month after the transition in haulers to Eureka Recycling, basically providing baseline information. Milk cartons and juice boxes were added just one month prior to the 2007 composition study and were not significant enough at the time to include in the study.

### Residual Rate

Also notable is the decrease in residual rate in Roseville’s material from 0.89% in 2006 to 0.15% in 2007 (see Composition Study charts above), showing an increased understanding among residents about what is and is not recyclable, and resulting in a higher revenue share per ton of materials collected.

### Bottle to Bottle Glass Recycling

While haulers for other recycling programs are using glass as sandblasting medium or landfill cover, Eureka Recycling continues to ensure that glass is recycled back into glass bottles. Eureka Recycling is committed to bottle to bottle recycling because it takes 3 times less energy to make a glass bottle from a glass bottle than from virgin materials. Eureka Recycling will install optical sort equipment in 2008 which will make recycling glass bottles back into glass bottles more



sustainable and environmentally beneficial by significantly reducing transportation of the material.

### Material Ratios

In 2006, papers made up 75.4% of the total weight of all the tons collected; containers made up 24.6%. In 2007, the papers made up 76.6% of the total tons collected; containers made up 22.4%. This impact can be seen in the nearly doubled percentage of cardboard. There are a number of reasons for this shift in composition percentages, including Eureka Recycling’s education efforts highlighting materials that may have been under-recycled, like cardboard and boxboard. Furthermore, weekly collection increased the capacity residents had to store and recycle bulky material like cardboard.

### Revenue Share Summary

The city of Roseville receives revenue share from the sale of the materials and based upon contractually agreed upon market indices. With weekly collection and attention to the multifamily program in 2007, tonnage increased overall by 6.9% from 2006. Total revenue share, however, increased by 33%. The market values for the recyclable materials collected in Roseville in 2007 were excellent. High costs of oil and natural gas have continued to increase the value and raise the demand for recyclable commodities. Newspaper, cardboard, and aluminum values stayed consistently at record highs throughout the year. All industry expectations are that these trends will continue as demand for the materials are expected to increase.

	2006 Tons	2006 Revenue	2006 Revenue/Ton	2007 Tons	2007 Revenue	2007 Revenue/Ton
1st Quarter	795.08	\$21,165.32	\$26.62	810.38	\$22,749.81	\$28.07
2nd Quarter	876.04	\$23,403.59	\$26.72	946.09	\$27,992.48	\$29.59
3rd Quarter	835.31	\$19,483.86	\$23.33	897.57	\$30,002.00	\$33.43
4th Quarter	934.78	\$22,661.14	\$24.24	1,026.58	\$34,551.08	\$33.66
<b>Total</b>	<b>3,441.21</b>	<b>\$86,713.91</b>	<b>\$25.20</b>	<b>3,680.62</b>	<b>\$115,295.37</b>	<b>\$31.19</b>

### Net Impact of Reduced Residual Rate, Increased Tons, and Improved Markets in Roseville

Roseville’s residents have become even better recyclers. This can be seen in both the amount of tons they have recycled and in the quality of the material they are recycling. That combined with the increasing market value of that material yields a significant increase in the efficiency and economic return Roseville receives from its recycling program.

In 2007, more of Roseville’s tons were recyclable and more of those tons yielded revenue share. Of the total tons Roseville recycled in 2006 (just over 3,441 tons), nearly 39 tons were not recyclable and did not yield any revenue share. In 2007 Roseville recycled nearly 3,681 tons, up nearly 240 tons, and only 9.5 tons of that were not recyclable.

Add to that the fact that Roseville’s revenue per ton went up nearly \$6 per ton, yielding an additional \$28,581 in revenue and it is clear that Roseville received more bang for its buck in revenue share, environmental impact, and efficiency in 2007.

## Annual Participation Rate and Set-Out Rate Studies

Eureka Recycling conducted the annual participation study from October 8 to November 2, 2007. (See Appendix C for the definitions and methodologies of the participation and set-out rate studies.)

City of Roseville	2006 Set Out Rate	2006 Participation Rate	2007 Set Out Rate	2007 Participation Rate
*Monday	58%	73%	43%	71%
Tuesday	63%	73%	49%	75%
Wednesday	61%	76%	45%	70%
Thursday	57%	71%	57%	78%
Friday	63%	77%	55%	81%
<b>AVERAGE</b>	<b>60.4%</b>	<b>74%</b>	<b>49.8%</b>	<b>75%</b>
*2006 rates were originally reported by collection routes of the biweekly program, differentiating “green” and “red” weeks. Because the program changed to weekly collection in 2007, the 2006 numbers have been combined into collection days for the sake of comparison.				

With the switch to weekly collection it would be expected that a higher participation rate would be seen with a corresponding decrease in the set out rate. This has shown to be true in Roseville. Residents have more opportunities to set out their recycling when they need it collected, so there is less need to set out on every collection day as there was when there were only two collection days per month. At the same time the increased convenience of weekly collection increases the number of people who are brought into the program. Overall, Roseville has a very high participation rate, which remained high in 2007.

## The Environmental Benefits of Roseville’s Recycling Program in 2007

### Environmental Impact of Weekly Collection

By moving to weekly collection, Roseville residents significantly increased the amount of materials they recycle. As predicted, the environmental benefit from increased recycling far outweighed the impact of additional collections.

The additional materials recycled accounted for over 481 metric tons of carbon reductions while the additional collections in Roseville increased carbon emissions by only 21.42 metric tons! This means that this decision yielded a net carbon reduction of nearly 460 metric tons of carbon dioxide.



In addition, Eureka Recycling runs their trucks in Roseville on a 20% biodiesel blend, which reduces greenhouse gas emissions. (For more information, see the enclosed “Benefiting From Biodiesel” Fact Sheet, Appendix D).

## Environmental Calculators

To better explain the environmental benefits of recycling in more commonly understood terms, government agencies, research scientists and economists have created several “calculators” to translate the amounts of recycled materials collected, and processed, into equivalent positive societal and environmental benefits.

The equations used in these calculations try to take into account the “full life cycle” of each material... everything from off-setting the demand for more virgin materials (tree harvesting, mining, etc.) to preventing the pollution that would have occurred if that material were disposed of (burned or buried).

**NOTE:** Different calculators may include some or all of the many factors that contribute to the “full life cycle,” so results from calculator to calculator will vary. Below are the results from two different calculators.

### The Environmental Protection Agency (EPA) Calculator

The EPA created an environmental as part of its study of waste management practices as they relate to greenhouse gas emissions. This calculator is commonly used in the recycling industry. Below are results from this EPA calculator estimating some of the equivalent social and environmental benefits of Roseville’s recycling program.

([http://epa.gov/climatechange/wycd/waste/calculators/Warm\\_Form.html](http://epa.gov/climatechange/wycd/waste/calculators/Warm_Form.html))

Roseville	Total Recycling	Carbon Equivalent Reduction	Carbon Dioxide Equivalent Reduction	Energy Savings**
2006	3,441.21 tons	2,328.0 metric tons (MTCE★)	8,537.0 metric tons (MTCO2E)	70,089.0 million BTUs
2007	3,682.0 tons	2,460.0 metric tons (MTCE)	9,018.0 metric tons (MTCO2E)	70,095.0 million BTUs

\*MTCE (Metric tons of carbon equivalent), MTCO2E (Metric tons of carbon dioxide emissions) are figures commonly used when discussing greenhouse gas emissions.

\*\* This calculation assumes material would otherwise be disposed of at an incinerator with energy capture.

### Jeffrey Morris Calculator

Jeffrey Morris, Ph.D. Economist at Sound Resource Management in Seattle has developed a calculator that begins with the EPA’s calculator and expounds upon it to gather information on not just Carbon and CO2 but also several other important environmental and human health indicators.

ROSEVILLE	2006	2007
<b>Total Recycling</b>	3,441.21 tons	3,682.0 tons
Carbon Dioxide Equivalent Reduction (MTCO2E)	9,437.3 metric tons	9,619.0 metric tons
Human Health – Non-Carcinogen Toxins Reduction	4609.7 tons	5,253.0 tons
Human Health – Acidification (SO2) Reduction	26.9 tons	27.0 tons
Human Health – Particulates Reduction	4.4 metric tons	6.6 metric tons
Human Health – Carcinogens Reduction	1.9 metric tons	1.9 metric tons

For more information about the process of measuring the environmental benefits of waste reduction, visit <http://epa.gov/climatechange/wycd/waste/measureghg.html#click>

### **What do these numbers mean?**

The numbers above help municipalities calculate and track their environmental footprint. For more information about the process of measuring the environmental benefits of waste reduction, visit: <http://epa.gov/climatechange/wycd/waste/measureghg.html#click>.

These numbers, however, don't make much sense to the average person. To help recyclers understand the significance of their actions, the EPA has also developed tools to translate these numbers into equivalent examples that people can more easily understand.

For example, using the figures above, the EPA estimates that Roseville would have had to remove a total of 1,952 cars from the road for one year to have had the same environmental impact in 2007 as they did recycling. To achieve this, approximately 13% of Roseville's households would have had to give up one car for a year.

Another example of how these efforts can be translated into energy savings can be found in the EPA calculator. It shows that the energy saving gained by the recycling efforts of Roseville's residents in 2007 could power the homes of just over 370 of their neighbors for one year.

## Outreach and Education Summary 2007

In 2007, Eureka Recycling and Roseville focused curbside education efforts on communicating with current recyclers about their recycling program. This included the switch from bi-weekly to weekly collection and the addition of milk cartons and juice boxes.

### Recycling Hotline

In 2007, Eureka Recycling's hotline staff had over 425 conversations with residents about the curbside recycling program and answered more than 49 calls about multifamily recycling in Roseville. This is a significant and expected decrease from 2006. In 2006, Eureka Recycling was a new partner for the city. In the first year, Eureka Recycling talked to hundreds of recyclers about non-recyclable materials that were left behind in their bins (see 2006 Outreach and Education Summary).

This year more Roseville residents were familiar with the curbside program and Eureka Recycling as their recycling partner. The switch to weekly collection and the addition of milk carton and juice boxes generated some calls and presented opportunities to explain the environmental benefits of recycling and how new materials can be added to a recycling program.

	2006	2007
<b>Hotline Calls</b>		
Curbside Calls	1000	425
Multifamily Calls	60	49
Total Calls	1060	474
<b>Requests for Printed Materials</b>		
Curbside	290	41

In 2007 the hotline staff also answered 49 calls from building contacts and residents participating in the multifamily recycling program that were calling with standard service questions. Eureka worked with these callers to help them manage their multifamily recycling set-ups, add carts or pick-ups, provide them with education material for their residents, and to work in many other ways to help improve their service.

Throughout the year Eureka Recycling mailed specific curbside recycling schedules and sorting information to 41 Roseville residents in response to their questions and calls. The decrease from 290 requests can be attributed to weekly collection, which does not require recyclers to carefully track their recycling date on their calendars.

## Curbside

### Guide to Recycling

All Roseville residents in the curbside recycling program received the 2007 Guide to Recycling through direct mail. The guide included information about the addition of milk cartons & juice boxes to the program, as well as the logistics and environmental benefits of the transition to weekly collection. Newly designed calendar stickers were included with the Guide as tools to help residents with the timing of transition.

### Requests for Printed Education Materials

Throughout the year, we mailed specific recycling schedules and sorting information to over 41 Roseville residents in response to questions and special requests.

### Direct Education

	2006	2007
Driver Tags	9,540	10,156
Postcards	650	822
Personalized Letters	30	51

Eureka Recycling drivers educate residents at the curb using educational tags for specific problems. In 2007 drivers left approximately 10,156 educational tags in recycler's bins. When bins were not available, drivers reported any issues on a separate form, and in order to communicate with these recyclers directly, we sent out 822 educational postcards and 51 personalized letters with detailed information and instructions. The number of direct educational opportunities increased after the switch to weekly collection creating twice the opportunities for drivers to provide Roseville residents with information about their recycling program.

The most common issues for residents that required direct education were confusion about plastics (what types of plastic are recyclable), proper sorting, and late set-outs. Late set-outs were anticipated as many of our routes changed with the switch to weekly collection, and residents may have been used to the specific time of day our drivers had been through their neighborhood for the biweekly collection routes.



### **Special Pickup Addresses**

To ensure that every resident has the opportunity to recycle, Eureka Recycling offers to collect recycling from locations other than the curb for residents who request special pickup service due to short- or long-term physical limitations. Currently, this service is extended to almost 90 Roseville residents.

This number is down from 2006 because we deliberately spent time contacting the residents we knew had special pick-up service in 2006. Through this process we were able to determine a more accurate number of residents who were actively using special pick-up service. The direct communication with the residents, through letters and phone calls, has allowed us to improve customer service by better understanding resident's personalized needs and to make personal connections with residents that need the most help to participate fully in the program.

## Multifamily

The City of Roseville has a very organized multifamily recycling program. This year two more buildings were brought on to the city program once their old service contracts expired and are now serviced by Eureka Recycling.

Each building was visited by Eureka Recycling staff to determine the proper setup and distribute educational materials to help the management ensure participation in the program. We have now a total of 81 multifamily complexes, 148 residential buildings, 11 city buildings, and 5,662 residential units being serviced on Roseville's program.



### Multifamily Education Materials and Customer Service

Overall, from 2006 to 2007 the number of units recycling in the Multifamily program increased by 5.5%. **Tonnage increased by 22%.** This increase can be attributed to increased participation due to the education and customer service the buildings and residents receive. In 2006 the recycling program was new and/or improved at the buildings. Once recycling was setup and established at each building and residents received consistent education, the recycling programs were in place to succeed.

At the end of 2006, Eureka Recycling sent a letter to all building contacts to report the year-end summary and celebrate their recycling efforts. This direct communication resulted in building managers being even more involved in the program's success and many requests for educational materials. In the second year of partnering with Eureka Recycling the residents and property management really caught on and worked with Eureka Recycling staff to continually improve efforts.

Eureka Recycling continues to monitor the performance at each account on an ongoing basis in order to improve participation. Our drivers track issues and staff are able to follow up immediately by offering suggestions that address the specific needs of the building and providing more education materials for residents. Eureka Recycling provided almost 400 pieces of recycling education (instructional posters and brochures) to the building management and residents of the newly established and existing multifamily accounts in 2007.

Eureka Recycling continues to monitor the performance and service issues at each account in order to adjust service levels on an ongoing basis. Capacity for storage is an issue that gets addressed through our attentive drivers and involved on-site contacts so that more carts get added as residents recycle more. In 2006 there were 36 carts added and in 2007 an additional 40 carts were added to buildings where increased recycling capacity was necessary to service the increased recycling needs of the residents.

## Special Education and Outreach

### Roseville Weekly

Eureka Recycling worked with city staff to generate articles promoting Roseville's recycling program and educating residents on changes and additions that were made in the

program in 2007. Articles on adding milk containers and juice boxes and the switch to weekly collection appeared in the January/February and March/April issues of the Roseville newsletter in 2007. Both articles helped manage the questions that residents have when additions to their programs were made. The success of these efforts can be seen in that while a change to weekly and the addition of a new material happened the number of calls to the hotline actually went down. Residents were receiving and understanding the key messages of the promotion and education efforts.

### Special Events

On April 21, 2007, Eureka Recycling participated in the city of Roseville’s Earth Day event at Harriet Alexander Nature Center. Approximately 300 Roseville residents enjoyed getting up close to Rosie, the award-winning recycling collection vehicle that was named in Roseville. Eureka Recycling staff had many conversations with residents about the recycling program. Mostly residents expressed their appreciation of the weekly recycling collection and said that it really helps them to recycle more. Eureka Recycling staff also enjoyed educating children on recycling through a recycling game that teaches them the sorting of bean-bag “recyclables” and tossing them into the trough of a wooden mini recycling truck.

### Milk Cartons and Juice Boxes

In 2007 Eureka Recycling entered into a new partnership with Tetra Pak to make it possible for residents to recycle their juice boxes and milk, soy, and broth cartons at the curb. Tetra Pak received a grant from the Minnesota Pollution Control Agency in 2006 to ensure their packaging gets recycled in Minnesota. Tetra Pak partnered with Eureka Recycling to collect this material from its curbside programs in Lauderdale, Maplewood, Roseville, and Saint Paul and to process those materials at its facility.

The addition of milk cartons and juice boxes was announced in January 2007 in the Guide to Recycling. Eureka Recycling and Tetra Pak hosted a campaign kick-off press conference in May 2007 and implemented an extensive education campaign in September/October 2007. The impact of the truck magnet and shelf-talker campaigns can be seen in September and October. The results are consistent with Eureka Recycling’s 20 years of experience in recycling education. First, in every case when outreach was applied, there were clear increases in the amount of materials collected at the curb. Second, with any new materials, the amount of material collected grows steadily over time. It takes 2-3 years of sustained education to reach mature levels of collection.

<b>Milk Cartons &amp; Juice Boxes Recycling by Month</b>		
<b>Month</b>	<b>Education/Outreach Activity</b>	<b>Total Bales</b>
January '07	2007 Guide to Recycling	0
February		2
March		4
April		2
May		3
June	Press Conference	5
July		2
August		3
September	Campaign	5

<b>Guide</b>	October	Campaign	<b>4</b>	<b>to</b>
	November		0	
	December		5	
	January '08	2008 Guide to Recycling	<b>7</b>	

### **Recycling—January 2007**

The addition of milk cartons and juice boxes was announced in the 2007 Guide to Recycling, which was mailed directly to every household in Lauderdale, Maplewood, Roseville, and Saint Paul.

### **Press Conference—May 2007**

On Wednesday, May 30, 2007, Tetra Pak, Eureka Recycling, and the City of Saint Paul held a press conference to officially launch the addition of milk cartons and juice boxes to Saint Paul's recycling program. The conference was attended by the reporters from the Pioneer Press and local affiliates of all four major television networks. This media coverage resulted in a measurable increase in the recycling of milk cartons and juice boxes following the press release.

### **“Start Seeing Recycling” Education Campaign—September/October 2007**

In 2007, Tetra Pak and Eureka Recycling launched and implemented an education campaign to educate recyclers about the addition of this material to the curbside recycling program. The key elements of the “Start Seeing Recycling” campaign are described below. These approaches included outreach that broadcasted the message to a wide, general audience and outreach that directly targeted recyclers.

- **Shelf Talkers** Shelf talkers were placed in Rainbow Foods stores throughout the service area in Saint Paul, Maplewood, Roseville and Lauderdale and in four food co-ops and natural food stores: Mississippi Market Co-op; Saint Paul (2); Hampden Park Co-op, Saint Paul; Whole Foods, Saint Paul. The shelf talkers were displayed prominently near milk cartons and juice boxes in the refrigeration section as well as near soy milk and soup containers in the grocery isles. Shelf talkers were placed during the first week of September and remained on the shelf through the first week of November in Rainbow Foods. The shelf talkers at the co-ops remained in place until the end of 2007.
- **Brochure Holders** A total of 97 brochure holders with the “Start Seeing Recycling” label and Guides to Recycling were placed in Lauderdale, Maplewood, Roseville, and Saint Paul. The brochure holders were given prominent placement in 13 libraries, 25 recreation and community centers, 3 YMCAs, 4 grocery stores and co-ops, and 37 restaurants and coffee shops. Fifteen brochure holders were given (five each) to the cities of Lauderdale, Roseville and Maplewood for distribution in public service centers, recreation centers, and libraries. The racks were distributed during the weeks of October 8 and 15.
- **Truck Magnets** Large “Start Seeing Recycling” magnets were displayed on the curbside sides of 21 Eureka Recycling trucks, to be viewed by area residents as the trucks covered their daily recycling routes. The trucks circulated through each

neighborhood in the cities we serve an average of 13 days during the weeks of August 13 through December 7.

- **Driver Education Tags** Eureka Recycling collection drivers began distributing “Start Seeing Recycling” education tags in the recycling bins of those residents who do not appear to currently recycle milk cartons and juice boxes on Wednesday, November 7. Focusing this education campaign on these residents targeted the recyclers who had not yet learned about the addition of the new material. Residents who already recycle milk cartons and juice boxes, and residents who do not use recycling bins, did not receive an education tag. 19,859 tags were distributed.
- **Ads/Articles** Ads were placed in the four largest community newspapers in Saint Paul and the largest community papers in Roseville and Maplewood during the months of September and October: The Park Bugle (Monthly), Villager Avenue (Twice per month), Midway Como Monitor(Monthly), and the Lillie Suburban Press (East Side Review/Roseville Review/Maplewood Review). Articles announcing the addition of Tetra Pak were published in Minnesota's two largest newspapers in June 2007: Saint Paul Pioneer Press, and the Minneapolis Star Tribune. Additionally, similar articles were published in the following circulations: Roseville Review (Lilly Suburban Press, January 2007), Roseville City News (January 2007), Dayton's Bluff District Forum (March 2007), Asian American Press (May 2007), Maplewood Review (Lilly Suburban Press, June 2007), Mankato Free Press (June 2007), and the Merriam Park POST-Newsletter (Winter 2007). Two local television news stations published online articles in May 2007: WCCO and Fox9 Twin Cities. In addition, articles appeared in national publications including: Recycling Today Magazine (May 2007), CSR Wire (May 2007), and Official Board Markets (June 2007).
- **Email Broadcast** An html email announcing the addition of milk cartons and juice boxes to Eureka Recycling’s residential recycling programs was sent on December 3, 2007 to a list of 200 individuals and organizations. The recipients on this list include recycling coordinators and administrators in cities who have partnered with Eureka Recycling for recycling services, area environmental and public policy organizations, and residents who have been active in recycling and other environmental issues in the communities served by Eureka Recycling programs.



## Multifamily Recycling Report by Building 2007

Property Name	Primary Address	# Units	2006 Total lbs	2006 Lbs/ Unit	2007 Total Lbs	2007 Lbs/ Unit
1144 Dionne Street	Dionne Street, 1144	23	7,150	311	8,457	368
1363 County Road B	County Road B, 1363	11	1,892	172	1,910	174
161 McCarrons Street	McCarrons Street, 161	11	439	40	198	18
161 Minnesota Avenue	Minnesota Avenue, 161	6	148	25	678	113
1610 County Road B	County Road B, 1610	11	2,266	206	2,324	211
1614 Eldridge Avenue	Eldridge Avenue, 1614	11	1,424	129	1,280	116
1615 Eldridge Avenue	Eldridge Avenue, 1615	11	1,809	164	1,091	99
1624 Eldridge Avenue	Eldridge Avenue, 1624	11	2,541	231	2,029	184
1629-1635 Skillman Avenue	Skillman Avenue, 1629-1635	14	2,505	179	3,002	214
1635 Eldridge Avenue	Eldridge Avenue, 1635	11	3,284	299	1,702	155
1705 Marion Street	Marion Street, 1705	3	1,437	479	1,578	526
1750 Marion Street	Marion Street, 1750	24	3,511	146	3,576	149
2125 Pascal	Pascal Street, 2125-2133	22	2,514	114	3,184	145
2180 Haddington Road	Haddington Road, 2180	5	964	193	1,285	257
2275 Rice Street	Rice Street, 2275	8	1,924	240	2,830	354
2447 County Road B	County Road B, 2447	17	2,584	152	2,867	169
2610 Snelling Curve	Snelling Curve, 2610	17	2,929	172	2,696	159
2900 Highcrest Road	Highcrest Road, 2900	11	4,581	416	4,436	403
2950 Highcrest Road	Highcrest Road, 2950	12	2,980	248	2,295	191
Applewood Pointe	Applewood Court, 1480	94	47,799	509	58,215	619
Bonaventure	Lexington Avenue North, 3090	30	7,490	250	8,105	270
Centennial Gardens East & West	Centennial Drive, 1400-1420	190	26,759	141	21,852	115
Coventry Seniors Apartments	Snelling Avenue, 2820	149	19,939	134	19,110	128
Dale Terrace Apartments	County Road B, 720	42	9,360	223	7,793	186
Dellwood Condominiums	Dellwood Street, 1725	12	1,226	102	1,923	160
Eagle Crest	Lincoln Drive, 2925	216	13,892	64	60,799	281
Executive Manor Condos	Old Highway 8, 3153-3155	72	12,385	172	14,530	202
Garley Apartments	County Road B, 1634	11	2,153	196	1,161	106
Greenhouse Village	Larpenteur Avenue, 1021	102	19,032	187	37,098	364
Hamline House Condos	Hamline Avenue, 2800	150	34,102	227	33,973	226
Hamline Terrace	Terrace Drive, 1360-1410	102	12,817	126	12,230	120
Har Mar Apartments	Snelling Avenue, 2225	120	9,199	77	9,683	81
Heritage Place	County Road B West, 563	50	21,892	438	23,110	462
Hillsborough Manor	Woodbridge Street, 2335-2345	120	16,298	136	17,775	148
Karie Dale Apartments	Dale Street North, 2355-2393	44	6,691	152	7,455	169
Lake Josephine Condominiums	Lexington Avenue North, 3076	23	9,411	409	8,313	361
Lar Dale Apartments	Larpenteur Avenue West, 655	17	2,068	122	2,189	129
Lexington Court	Lexington Avenue, 2192-2206	52	3,390	65	2,970	57
Lexington Twin Apartments	Lexington Avenue, 1890	22	5,674	258	5,519	251
Lexlawn/Roselawn Apartments	Lexington Avenue, 1943	34	3,142	92	2,888	85
Marion Street/ Brittany Apartments	Larpenteur Avenue, 175	277	11,980	43	16,150	58
McCarrons Apartments	McCarrons Boulevard North, 166-204	67	5,092	76	4,919	73
Midland Grove Condos	Midland Grove Road, 2200-2250	174	48,162	277	60,937	350
Northwestern College Apartments	Lydia Avenue, 1610	40	6,061	152	7,839	196
Northwestern College/Snelling Terrace	Snelling Drive East, 2906	48	7,386	154	16,027	334

Palisades	Sandhurst Drive West, 535-570	330	40,078	121	41,635	126
Parkview Estate	Oxford Street, 2670-2680	204	28,447	139	29,206	143
Parkview Manor	Dale Street North, 2202-2210	34	4,931	145	4,553	134
Parkview Terrace	Oxford Street, 2690-2700	105	3,960	38	33,244	317
Ramsey Square Condos	Dale Street North, 2700-2730	192			35,796	186
Riviera Apartments	Highway 36 West, 925 & 965	64	12,473	195	13,597	212
Rose Hill Estates	County Road B, 591	51	4,341	85	4,904	96
Rose Mall Apartments	Albert Street, 2201-2221	54	37,328	691	41,412	767
Rose Park Apartments	Fry Street, 2128-2136	22	4,757	216	5,426	247
Rose Vista Apartments	Rose Vista Court, 1222-1238	154	19,697	128	18,366	119
Rosedale Estates North	Rice Street, 2835 & 2855	180	21,885	122	24,253	135
Rosedale Estates South	Rice Street, 2735	180	20,750	115	23,864	133
Roselawn Village	Roselawn Avenue, 1074	22	5,576	253	5,950	270
Rosepointe	Hamline Avenue, 2545 & 2555	190	32,650	172	29,485	155
Roseridge Estates	Samuel Street, 2086-2090	12	2,653	221	3,099	258
Rosetree Apartments	Highway 36, 655	48	12,251	255	12,394	258
Roseville Apartments, LLC	Eldridge Avenue, 1625	11	2,037	185	2,546	231
Roseville Arms Condos (Hilltop Apartments)	Elmer Street, 160-170	34	789	23	1,565	46
Roseville Commons	County Road C2 West, 2496	30	8,332	278	7,515	250
Roseville Estates	Lexington Avenue, 2599	107	5,593	52	9,842	92
Roseville Seniors	Larpenteur Avenue, 1045	127	25,581	201	33,600	265
Roseville Terrace	Dunlap Street, 1759	36	5,363	149	4,785	133
Roseville Townhomes	Old Highway 8, 3085	40			13,423	336
Rosewood Estates (Roseville)	Victoria Street, 2750	106	20,205	191	22,122	209
Rosewood Village	Highway 36 West, 1630	201	44,374	221	41,062	204
South Oaks Apartments	County Road D West, 1080	25	4,067	163	5,951	238
Sun Place Apartments	Marion Street, 1721	30	5,169	172	4,093	136
Sunrise Assisted Living	Snelling Avenue North, 2555	77	17,031	221	16,647	216
Talia Place	Old Highway 8, 3020	11	2,790	254	1,683	153
Terrace Park	Terrace Drive, 1420	36	12,784	355	13,045	362
The Lexington (Roseville)	Lexington Avenue North, 2755	150	37,081	247	30,796	205
The Riviera 2	Highway 36 West, 885	32	6,562	205	6,602	206
Valley 8 Apartments	Old Highway 8, 3050	85	11,085	130	9,910	117
Victoria Place	Victoria Street North, 2250	58			14,911	257
Villa Park Community Condominiums	County Road B, 500	95	15,890	167	14,276	150
Villas at Midland Hills	Fulham Street, 2001	32	2,873	90	11,653	364
<b>TOTAL Residential</b>		<b>5,662</b> <i>*5,367 in 2006</i>	<b>889,918</b>	<b>166</b>	<b>1,103,190</b>	<b>195</b>
City Hall (Roseville)	Civic Center Drive, 2660		28,244		28,474	
Evergreen Park Ballfield	County Road B West, 1810		497		515	
Fire Station 1 Roseville	Lexington Avenue, 2701		3,226		3,630	
Fire Station 3 Roseville	Dale Street North, 2335		1,564		2,786	
Golf Course (Roseville)	Hamline Avenue, 2395		2,729		2,654	
License Center	Lexington Avenue, 2737		79		178	
Owasso Ballfields	Victoria Avenue, 2659		120		36	
Public Works Garage (Roseville)	Woodhill Drive, 1140		8,341		12,089	
Skating Center	Civic Center Drive, 2661		4,877		5,038	
Wildlife Rehabilitation Center	Dale Street North, 2530		14,607		13,948	
Roseville CTV	Woodhill Drive West, 934				1,277	
<b>TOTAL CITY BUILDINGS</b>			<b>64,283</b>		<b>70,624</b>	
<b>OVERALL TOTAL</b>			<b>954,201</b>		<b>1,173,813</b>	



## Eureka Recycling Composition Analysis Methodology

Eureka Recycling collects materials in two streams: a “papers” stream consisting of various grades of paper (including cardboard), and a “containers” stream consisting of food and beverage containers (including glass, plastic bottles, and metal cans). As outlined in our contract, Eureka Recycling conducts an annual composition study of the two streams to create a basis on which the percent of each commodity collected in the two-stream commingled program can be estimated based upon total weight collected in the truck.

### Composition by Stream

During the composition study, Eureka Recycling weighs each truck before and after tipping the papers to determine the weight of the papers and containers streams. Each truck has a stored tare weight that is updated regularly for accuracy. This weighing process allows us to determine what percentage of the total recycling collected makes up the papers stream, and what percentage makes up the containers stream.

### Composition by Commodity of Each Recycling Stream



The composition study starts with Eureka Recycling storing all of the materials collected in the city in the containers stream during a one-week period in a separate bunker from all other materials at the facility. Eureka Recycling sorts these containers by material separately from all other containers at the facility using the sort line.

The sorted materials are then baled or put into a hopper and transported with a forklift to the truck scale to be weighed. Finally, Eureka Recycling weighs the total amount of each sorted material grade (including residual) to establish a percentage of composition each grade represents within the containers stream.

The entire process is then repeated with the papers stream to establish a composition percentage of each grade of paper within the stream.

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## Eureka Recycling Participation Analysis Methodology

Eureka Recycling conducts an annual participation study in which both set-out and participation rates are analyzed and documented.

The **set-out rate** is the average number of households that set materials out for recycling collection on a given day. For example, every Monday for one month, collection drivers count the number of households that set out recycling on that day. Then the four numbers are averaged to determine the average number of households who set out recycling on a given Monday.

The **participation rate** is the number of households who set materials out for recycling collection at least once over a period of one month. The participation rate is a better indication of overall recycling participation because it includes households that recycle at least once a month, recognizing that some households may not set out recycling every week. It more accurately indicates how many households are participating in the recycling program *overall*, as opposed to the number of participants on a specific day.

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### Summary of Process

The study spans one month of collections. Eureka Recycling selects random sections to study for each daily recycling route, each section being comprised of about 200 households per day, for a total study of over 1,000 households. These same sections will be studied every year for consistency. Over a four-week period, Eureka Recycling tallies the exact number of households that set out recycling for collection in the morning of their collection day, before the driver services the section. The four-week study tracks recycling set-outs over the five days of collections during the week, totaling 20 days of set-out tracking.

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## Benefiting from Biodiesel

Eureka Recycling's trucks are green in more ways than one! Since our trucks spend most of their time driving through Saint Paul and metro area neighborhoods, we chose a 20 percent biodiesel blend to fuel our trucks. Biodiesel is a cleaner fuel made from soybeans that produces much less pollution than regular diesel fuel, which is better for the health of our employees and the families we serve. Even though it's more expensive (by only half of a cent per household per month), we are able to fund this initiative through the proceeds from the community's recycling program.

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### **Biodiesel burns cleaner than petroleum-based fuels.**

According to the U.S. Environmental Protection Agency, a B20 blend:

- cuts emission of particulate matter—a contributor to respiratory disease—by 10%
- cuts carbon monoxide emissions by 11%
- cuts emissions of hydrocarbons—contributors to ozone and smog—by 21%

### **Biodiesel reduces contributions to the greenhouse effect.**

- According to the U.S. Department of Energy, biodiesel produces 78% less carbon dioxide, a greenhouse gas, than petroleum-based diesel over its entire life cycle.
- Soybeans absorb carbon dioxide from the air when they grow, which offsets the carbon dioxide produced when the fuel burns.

### **Biodiesel supports Minnesota's agriculture economy.**

- Eureka Recycling's use of biodiesel will replace 12,000 gallons of petroleum-based fuel with 216 acres of soybeans annually.

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