



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 27, 2007

James DeBenedet  
Joel Fischer  
Randy Neprash  
Ernest Willenbring  
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 2006 report on Roseville's recycling program. As a nonprofit organization with the mission to demonstrate that waste is preventable, not inevitable, we value our partnership with Roseville and are proud to be part of the city's efforts to develop its recycling program.

In 2006, Roseville and Eureka Recycling took major strides to decrease waste by adding new materials, providing the city with a revenue share, and increasing the outreach and education provided through the recycling contract. We also worked together to set up sound data collection methods and establish clear channels of communication.

Setting up a system for gathering accurate and complete information is the only way to truly determine if we are meeting Roseville's recycling and waste reduction goals. The information gathered in 2006 provides a starting point that will allow us to determine future program effectiveness (i.e., the application of a specific outreach campaign, the addition of a new material, etc.) by comparing future outcomes to the 2006 baseline data.

Throughout the year our close interaction with city staff, attendance at neighborhood events, and hundreds of conversations with Roseville residents, have confirmed for us that Roseville's commitment to the environment remains strong. To reflect this, the 2007 workplan includes increasing participation through award-winning education, moving to

~over~

2828 Kennedy Street NE \ Minneapolis, MN 55413 \ (651) 222-7678 \ Fax (612) 623-3277 \ [www.eurekarecycling.org](http://www.eurekarecycling.org)

Eureka Recycling is an affirmative action, equal opportunity employer. It is our policy to hire without discrimination based on race, creed, religion, sex, color, national origin, sexual or affectional orientation, ancestry, familial status, age, disability, marital status or status with regard to public assistance.

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weekly collection, and increasing recycling by adding and promoting new materials, such as milk cartons, juice boxes, clothes, and linens. As a result of the new contract and the city's new revenue share from recycling, Roseville residents receive all of these additional services without an increase in cost to the city.

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

Sincerely,

A handwritten signature in black ink, appearing to read "Susan Hubbard". The signature is fluid and cursive, with the first name "Susan" written in a larger, more prominent script than the last name "Hubbard".

Susan Hubbard  
CEO and Co-President

A handwritten signature in black ink, appearing to read "Tim Brownell". The signature is highly stylized and cursive, with the first name "Tim" and last name "Brownell" written in a compact, overlapping manner.

Tim Brownell  
COO and Co-President

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

# City of Roseville Year-End Recycling Report 2006

(651) 222-SORT (7678)  
[www.eurekarecycling.org](http://www.eurekarecycling.org)

## Tonnage Summary by Collection Route

Route	Total Tons	Total Lbs	# Households	Lbs per HH or Unit
Monday Green	346.23	692,460	1,194	580
Tuesday Green	172.96	345,920	559	619
Wednesday Green	136.01	272,020	382	712
Thursday Green	278.4	556,800	1,076	517
Friday Green	225.6	451,200	600	752
Monday Red	506.22	1,012,440	1,481	684
Tuesday Red	290.57	581,140	965	602
Wednesday Red	318.29	636,580	1,180	539
Thursday Red	427.22	854,440	1,414	604
Friday Red	256.54	513,080	661	776
<b>Curbside Total</b>	<b>2958.04</b>	<b>5,916,080</b>	<b>9512</b>	<b>622</b>
<b>Multifamily</b>	483.17	966,340	5367	178
<b>Roseville Total</b>	<b>3,441.21</b>	<b>6,882,420</b>	<b>14,879</b>	<b>463</b>

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

### Multifamily Program

Roseville's multifamily recycling program currently accounts for 91 city multifamily accounts, which consist of 10 city buildings, 76 apartments, and 5 senior living and assisted living properties. Overall, 151 buildings are serviced by Eureka Recycling using 13 dumpsters and almost 185 carts. There are currently 5,367 units serviced with an average of 178 pounds of material recycled per unit in 2006.



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## Annual Composition Study

Eureka Recycling conducted an annual composition study of materials from January 2 to March 10, 2006. The composition of the materials stream, determined from a 10-week study, is that papers make up 75.4% and containers make up 24.6% of the total weight of all the tons collected in Roseville.

City of Roseville Composition			
Papers	Percentage of Total Tonnage	Containers	Percentage of Total Tonnage
News Mix	63.98%	Total Glass	14.89%
Cardboard	6.71%	Amber Glass	2.01%
Boxboard	2.37%	Flint Glass	3.32%
Wet Strength	0.36%	Green Glass	2.74%
Phone Books	1.33%	Mix Glass	6.82%
Textiles	0.40%	Steel Cans	2.64%
Residual	0.24%	Aluminum Cans	1.48%
<b>TOTAL</b>	<b>75.4%</b>	Total Plastics	4.70%
		PET	2.34%
		HDPE-NAT	1.11%
		HDPE-COL	1.25%
		Residual	0.89%
		<b>TOTAL</b>	<b>24.6%</b>

## Revenue Share Summary

The market values for the recyclable materials collected in Roseville in 2006 were excellent. Rapid economic growth around the world has created great demand for the natural resources used in manufacturing and development. Specifically, demand from China and India has led to very strong markets for both paper and metals. In addition, the high costs of oil and natural gas have made the energy savings achieved through the use of recycled content even more cost effective, raising the value of recyclable commodities across the board. In the Twin Cities marketplace, the one commodity that has proven most difficult has been glass due to the local market conditions changing dramatically at Anchor Glass. In 2007, we will be implementing changes in our processing system to address this problem and make every effort to ensure that glass bottles continue to be recycled back into bottles.

2006	Tons	Revenue	Revenue/Ton
1st Quarter	795.08	\$21,165.32	\$26.62
2nd Quarter	876.04	\$23,403.59	\$26.72
3rd Quarter	835.31	\$19,483.86	\$23.33
4th Quarter	934.78	\$22,661.14	\$24.24
<b>Total</b>	3,441.21	\$86,713.91	\$25.20

## Annual Participation Rate and Set-Out Rate Studies

Eureka Recycling conducted the annual participation study from October 9 to November 17, 2006. (See Appendix C for the definitions and methodologies of the participation and set-out rate studies.)

City of Roseville	Set Out Rate	Participation Rate
Monday Green	62%	74%
Tuesday Green	56%	65%
Wednesday Green	60%	74%
Thursday Green	61%	75%
Friday Green	60%	77%
Monday Red	54%	71%
Tuesday Red	70%	80%
Wednesday Red	62%	77%
Thursday Red	53%	67%
Friday Red	66%	77%
<b>Average</b>	<b>60%</b>	<b>74%</b>



## School Textbook Recycling

Roseville's Recycling Coordinator contacted all the public and private schools in the city to gauge their interest in participating in a textbook recycling program. Four schools expressed an interest.

Eureka Recycling dropped off a collection trailer at Roseville High School for book collection in October. Teachers from all four schools then deposited their surplus textbooks in the trailer. A total of 3,450 pounds of textbooks were collected. Outdated textbooks are difficult to donate for reuse. However, the paper can be recycled by some companies.

## The Environmental Benefits of Roseville's Recycling Program in 2006

To better understand the environmental benefits of recycling, it can be helpful to translate the number of tons recycled into the number of trees replaced by recycled paper, energy savings, the equivalent greenhouse gas reduction, water conservation, etc.

Several environmental calculators have been created to attempt to translate recycling tons into energy savings or greenhouse gas emissions reduction. 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 (landfilled or incinerated). 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.

The Environmental Protection Agency (EPA) created an environmental calculator 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.  
([http://epa.gov/climatechange/wycd/waste/calculators/Warm\\_Form.html](http://epa.gov/climatechange/wycd/waste/calculators/Warm_Form.html))

There are several online sources that you can use to can further translate the greenhouse gas emissions reduction and energy savings into everyday activities (such as cars off the road or number of trees saved). Again, different calculators will yield different results depending on their assumptions and equations.

According to the EPA calculator, Roseville's 2006 recycling efforts resulted in the following environmental benefits:

Total Recycling	Carbon Equivalent Reduction	Carbon Dioxide Reduction	Energy Savings
3,441.21 Tons	2328 metric tons (MTCE)	8537 metric tons (MTCO2E).	70,089 million BTUs

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

For more information, visit:

<http://epa.gov/climatechange/wycd/waste/measureghg.html#click>

## Use of Biodiesel in Recycling Trucks in Roseville

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





## Outreach and Education Summary 2006

The main outreach and education goals for the Roseville residential recycling program in 2006 were first, to support a smooth transition in our new relationship with the recyclers of Roseville and help them through the questions and concerns that come with change. Secondly, we strove to communicate clearly about the route transitions to accommodate for the switch to weekly collection. Finally, Eureka Recycling focused communication efforts towards smooth transition of the existing multifamily residential recycling service.

### Recycling Hotline

Eureka Recycling has provided extensive education to Roseville recyclers. This year alone our recycling hotline staff had almost 1,000 conversations with residents about the curbside recycling program and answered more than 60 calls about multifamily recycling in Roseville.

Early in 2006, Roseville residents called the recycling hotline with questions about Eureka Recycling trucks and the program. Because drivers were now collecting recyclable materials that were new to the program, and leaving behind nonrecyclable materials that were collected by the previous hauler, callers also had questions about what to recycle. These phone calls created great opportunities for one-on-one education and enabled Roseville residents to become informed consumers and recyclers.

As the year progressed, the calls from Roseville residents and the information reported from the driver curbside education process indicated that nonrecyclable plastics and plastic bags were the biggest areas of confusion for residents. Our hotline staff had many conversations with residents to explain the reasons why only plastic bottles are collected in the program, such as market availability, plastic production methods, and plastic resin codes. We also explained that, although the previous hauler may have picked up additional items set out by residents, Eureka Recycling is committed to only collecting what is actually recyclable based on all of those variables.

Route changes that were necessary to balance collection loads resulted in some Roseville residents' recycling weeks to shift. This transition went smoothly due to extensive preparation. We were able to proactively inform the public of the new biweekly collection schedule (and additional materials to recycle) through the 2006 recycling guide mailed to all residents. The city newsletter also helped to let residents know about the changes. Additionally, Eureka Recycling collected in Roseville a week before the official contract start date so residents whose recycling weeks shifted did not have to store an extra week's worth of recyclables.

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## Curbside

### Guide to Recycling

Eureka Recycling's transition as the new recycling hauler for Roseville's residents went smoothly in part due to extensive communication. We were able to proactively inform the public of the new biweekly collection schedule and the additional recyclable materials through the 2006 Guide to Recycling, which was mailed directly to 9,512 Roseville residents who participate in the curbside program. The city newsletter also helped to let residents know about the changes.

### Requests for Information

In response to questions and calls, we mailed specific recycling schedules and sorting information to over 290 Roseville residents.

### Direct Education

Eureka Recycling drivers educate residents at the curb using educational tags for specific problems. In 2006 drivers left approximately 9,540 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 650 educational postcards and 30 personalized letters with detailed information and instructions.



### Special Pickup Addresses

As part of our efforts to provide excellent customer service, 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 130 Roseville residents in order to help them recycle.

## **Multifamily**

The City of Roseville has a solid foundation for multifamily recycling. This year the main goals accomplished for the program were to transition all buildings to be serviced by Eureka Recycling, which was completed successfully. 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.



### **Multifamily Education Materials**

Eureka Recycling provided 6,000 pieces of recycling education (instructional posters and brochures) to the building management and residents of the multifamily accounts. Eureka Recycling continues to monitor the performance and service issues at each new account on an ongoing basis in order to adjust service levels and improve participation.

## Special Education and Outreach

### Roseville Earth Day

On April 22, 2006, Eureka Recycling participated in the city of Roseville's Earth Day event at Harriet Alexander Nature Center. Approximately 300 Roseville residents enjoyed spending time with one of our award-winning recycling collection vehicles. Eureka Recycling staff had many conversations with residents about the recycling program, and engaged with children through a recycling game sorting and tossing bean-bag "recyclables" into the trough of a mini recycling truck.

### Name the Trucks Campaign

As a fun way to involve residents, Eureka Recycling created three possible names and personalities for the two new recycling collection trucks being used in Roseville. Residents voted on their favorite names. The winning names are Rosie the Recycler and Espresso. Rosie and Espresso were introduced in the Roseville City Newsletter, and "birth certificates" were presented to the city. Decals of the names were added to the new trucks so residents can recognize them as they work in the streets of Roseville every day.



## Reinvigorating Residential Recycling

In 2006 the City of Roseville participated in the development of the Reinvigorating Residential Recycling initiative from the Solid Waste Management Coordinating Board (SWMCB) - a region wide campaign to increase recycling. The SWMCB is comprised of elected officials from the metro area counties. One of their major initiatives is the Green Guardian and its associated website [www.greenguardian.com](http://www.greenguardian.com).

Starting in November 2005, the SWMCB facilitated meetings between representatives from cities, counties, haulers, end users and public relations firms. Representatives from Eureka Recycling also participated in the initiative. The group identified the need to do more promotion of paper recycling and designed a campaign called "Rethink Recycling." The PR firms designed various types of promotions from restroom ads, to newsletter articles, to utility bill stuffers.

Each participant agreed to use the material in their promotional efforts. Roseville worked with Eureka Recycling to customize a utility bill stuffer to reflect the Roseville program. It was then stuffed into the City's water bills that were issued in October – December 2006. One-third of the city is billed each month, thus all homes and businesses in Roseville received the bill stuffer. Eureka Recycling also used the standardized photos and terminology from the Rethink Recycling campaign in the citywide guide to recycling. Those images and terminology were used to update the information on the City's website.

As part of the campaign, Roseville's Recycling Coordinator Tim Pratt was put in charge of developing a video contest. People were invited to create a :30 or :60 video using the themes of the Rethink Recycling campaign. Pratt worked with support staff at CTV to develop a webpage where the videos have been posted for public viewing and voting <http://recycling.nsacwebcasts.com/>. Voting continues through the end of February.



# RETHINK RECYCLING

You can recycle more kinds of paper than you think. Look on the reverse side for your paper recycling guide.

ROSEVILLE  RECYCLES

Printed on 100% post-consumer recycled paper.

Paper Recycling Guide:

## CAN I RECYCLE IT?

YES

- Mail, office and school papers
- Magazines and catalogs
- Newspapers and inserts
- Phone books
- Shredded paper in closed paper bags
- Cardboard boxes
- Cereal boxes, cracker boxes, pasta boxes, cake mix boxes
- Shoe boxes, gift boxes and electronics boxes
- Boxes from toothpaste, medications and other toiletries

NO

- Pizza boxes, egg cartons or boxes soiled with food
- Boxes from refrigerated or frozen foods
- Paper towels, napkins, cups and plates
- Gift wrap



ROSEVILLE



Learn more at [GreenGuardian.com](http://GreenGuardian.com) or [cityofroseville.com](http://cityofroseville.com)

ROSEVILLE  RECYCLES

Call 651-792-7027 [www.cityofroseville.com](http://www.cityofroseville.com)



## Multifamily Recycling Report by Building 2006

Property Name	Primary Address	# Units	Total lbs	Lbs/ Unit
1144 Dione Street	Dione Street, 1144	23	7,150	311
1363 County Road B	County Road B, 1363	11	1,892	172
161 McCarrons Street	McCarrons Street, 161	11	439	40
161 Minnesota Avenue	Minnesota Avenue, 161	6	148	25
1610 County Road B	County Road B, 1610	11	2,266	206
1614 Eldridge Avenue	Eldridge Avenue, 1614	11	1,424	129
1615 Eldridge Avenue	Eldridge Avenue, 1615	11	1,809	164
1624 Eldridge Avenue	Eldridge Avenue, 1624	11	2,541	231
1629-1635 Skillman Avenue	Skillman Avenue, 1629-1635	14	2,505	179
1635 Eldridge Avenue	Eldridge Avenue, 1635	11	3,284	299
1647 County Road B	County Road B, 1647	11	253	23
1705 Marion Street	Marion Street, 1705	3	1,437	479
1750 Marion Street	Marion Street, 1750	24	3,511	146
2125 Pascal	Pascal Street, 2125-2133	22	2,514	114
2180 Haddington Road	Haddington Road, 2180	5	964	193
2275 Rice Street	Rice Street, 2275	8	1,924	240
2447 County Road B	County Road B, 2447	17	2,584	152
2610 Snelling Curve	Snelling Curve, 2610	17	2,929	172
2900 Highcrest Road	Highcrest Road, 2900	11	4,581	416
2950 Highcrest Road	Highcrest Road, 2950	12	2,980	248
Applewood Pointe	Applewood Court, 1480	94	47,799	509
Bonaventure	Lexington Avenue North, 3090	30	7,490	250
Centennial Gardens East & West	Centennial Drive, 1400-1420	190	26,759	141
Coventry Seniors Apartments	Snelling Avenue, 2820	149	19,939	134
Dale Terrace Apartments	County Road B, 720	42	9,360	223
Dellwood Condominiums	Dellwood Street, 1725	12	1,226	102
Eagle Crest	Lincoln Drive, 2925	216	13,892	64
Executive Manor Condos	Old Highway 8, 3153-3155	72	12,385	172
Garley Apartments	County Road B, 1634	11	2,153	196
Greenhouse Village	Larpenteur Avenue, 1021	102	19,032	187
Hamline House Condos	Hamline Avenue, 2800	150	34,102	227
Hamline Terrace	Terrace Drive, 1360-1410	102	12,817	126
Har Mar Apartments	Snelling Avenue, 2225	120	9,199	77
Heritage Place	County Road B West, 563	50	21,892	438
Hillsborough Manor	Woodbridge Street, 2335-2345	120	16,298	136
Hilltop Apartments	Elmer Street, 160-170	34	789	23
Karie Dale Apartments	Dale Street North, 2355-2393	44	6,691	152
Lake Josephine	Lexington Avenue, 3076	23	9,411	409
Lar Dale Apartments	Larpenteur Avenue West, 655	17	2,068	122
Lexington Court	Lexington Avenue, 2192-2206	52	3,390	65
Lexington Twin Apartments	Lexington Avenue, 1890	22	5,674	258
Lexlawn/Roselawn Apartments	Lexington Avenue, 1943	34	3,142	92
Marion Street/ Brittany	Larpenteur Avenue, 175	277	11,980	43
McCarrons Apartments	McCarrons Boulevard North, 166-204	67	5,092	76

## Appendix A

Property Name	Primary Address	# Units	Total lbs	Lbs/ Unit
Midland Grove Condos	Midland Grove Road, 2200-2250	174	48,162	277
Northwestern College Apartments	Lydia Avenue, 1610	40	6,061	152
Northwestern College/Snelling Terrace	Snelling Drive East, 2906	48	7,386	154
Palisades	Sandhurst Drive West, 535-570	330	40,078	121
Parkview Estate	Oxford Street, 2670-2680	204	28,447	139
Parkview Manor	Dale Street North, 2202-2210	34	4,931	145
Parkview Terrace	Oxford Street, 2690-2700	105	3,960	38
Riviera Apartments	Highway 36 West, 925 & 965	64	12,473	195
Rose Hill Estates	County Road B, 591-601	35	4,341	124
Rose Mall Apartments	Albert Street, 2201-2221	54	37,328	691
Rose Park Apartments	Fry Street, 2128-2136	22	4,757	216
Rose Vista Apartments	Rose Vista Court, 1222-1238	154	19,697	128
Rosedale Estates North	Rice Street, 2835 & 2855	180	21,885	122
Rosedale Estates South	Rice Street, 2735	180	20,750	115
Roselawn Village	Roselawn Avenue, 1074	22	5,576	253
Rosepointe	Hamline Avenue, 2545 & 2555	190	32,650	172
Roseridge Estates	Samuel Street, 2086-2090	12	2,653	221
Rosetree Apartments	Highway 36, 655	48	12,251	255
Roseville Apartments, LLC	Eldridge Avenue, 1625	11	2,037	185
Roseville Commons	County Road C2 West, 2496	30	8,332	278
Roseville Estates	Lexington Avenue, 2599	107	5,593	52
Roseville Seniors	Larpenteur Avenue, 1045	127	25,581	201
Roseville Terrace	Dunlap Street, 1759	36	5,363	149
Rosewood Estates (Roseville)	Victoria Street, 2750	106	20,205	191
Rosewood Village	Highway 36 West, 1630	201	44,374	221
South Oaks Apartments	County Road D West, 1080	25	4,067	163
Sun Place Apartments	Marion Street, 1721	30	5,169	172
Sunrise Assisted Living	Snelling Avenue North, 2555	77	17,031	221
Talia Place	Old Highway 8, 3020	11	2,790	254
Terrace Park	Terrace Drive, 1420	36	12,784	355
The Lexington (Roseville)	Lexington Avenue North, 2755	150	37,081	247
The Riviera 2	Highway 36 West, 885	32	6,562	205
Valley 8 Apartments	Old Highway 8, 3050	85	11,085	130
Villa Park Community Condominiums	County Road B, 500	95	15,890	167
Villas at Midland Hills	Fulham Street, 2001	32	2,873	90
<b>TOTAL RESIDENTIAL</b>		<b>5367</b>	<b>889,918</b>	<b>166</b>
City Hall (Roseville)	Civic Center Drive, 2660		28,244	
Evergreen Park Ballfield	County Road B West, 1810		497	
Fire Station 1 Roseville	Lexington Avenue, 2701		3,226	
Fire Station 3 Roseville	Dale Street North, 2335		1,564	
Golf Course (Roseville)	Hamline Avenue, 2395		2,729	
License Center	Lexington Avenue, 2737		79	
Owasso Ballfields	Victoria Avenue, 2659		120	
Public Works Garage (Roseville)	Woodhill Drive, 1140		8,341	
Skating Center	Civic Center Drive, 2661		4,877	
Wildlife Rehabilitation Center	Dale Street North, 2530		14,607	
<b>TOTAL CITY BUILDINGS</b>			<b>64,283</b>	
<b>OVERALL TOTAL</b>			<b>954,202</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 other Monday for one month, collection drivers count the number of households that set out recycling on that day. Then the two 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 collection day. 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 2,018 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 two sets of bi-weekly collection days for each day of 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 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.

(651) 222-SORT (7678)

[www.eurekarecycling.org](http://www.eurekarecycling.org)

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.



### 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 78.5 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.

An affirmative action, equal opportunity employer.

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