

City of Roseville 2022 Year-End Recycling Report



Roseville's recycling program continues to be a leader in the country. Outreach and education elements of the program are an important part to ensuring good participation and helping residents understand the benefits of recycling. Participation continues to be at or among the highest in Ramsey County at 95%. Despite the continued lightening of packaging, the tons of recycling collected in Roseville in 2022 stayed steady with only a small decrease. Roseville residents demonstrate a genuine desire to support the program, understand what can truly be recycled, and recycle as much as possible.

In the current recycling climate, it is even more critical to work to keep Roseville's recycling clean and free of contamination, which is one of the reasons Eureka Recycling decided to launch a recycling app in 2017. By working with a company called ReCollect, we launched a recycling app that Roseville residents can use online at eurekarecycling.org or can download to their mobile device for free by searching for "Eureka Recycling" in their app store. The app allows residents to look up individual items to find out if they are accepted in their recycling program or not, and can also be connected to Ramsey County listings and resources for guidance in handling hard to recycle items like electronics, scrap metal, and appliances. The app also allows residents to see their recycling schedule and sign up for reminders to support their participation in Roseville's recycling program.

In 2022 we saw a continued increase in the number of Roseville residents using the app. Overall, 5,013 unique Roseville addresses have been searched through the app, and over 17,500 materials have been looked up to see if they can be recycled. There are currently 1,090 Roseville residents signed up for recycling day reminders: 60% of those residents are signed up through a mobile app and the rest are signed up for email, text, or phone call reminders. We look forward to working with the City to further promote this new app and expand on this success.

This year-end report contains information on several areas that Eureka Recycling tracks to monitor the success of Roseville's zero waste recycling program over the course of each year. As a non-profit social enterprise we believe tracking and reporting this data is an essential way to ensure program transparency. It also gives Eureka Recycling and city staff the tools needed to successfully manage the program.

(651) 222-SORT (7678)
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.

An affirmative action, equal opportunity employer.

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ENVIRONMENTAL BENEFITS SUMMARY

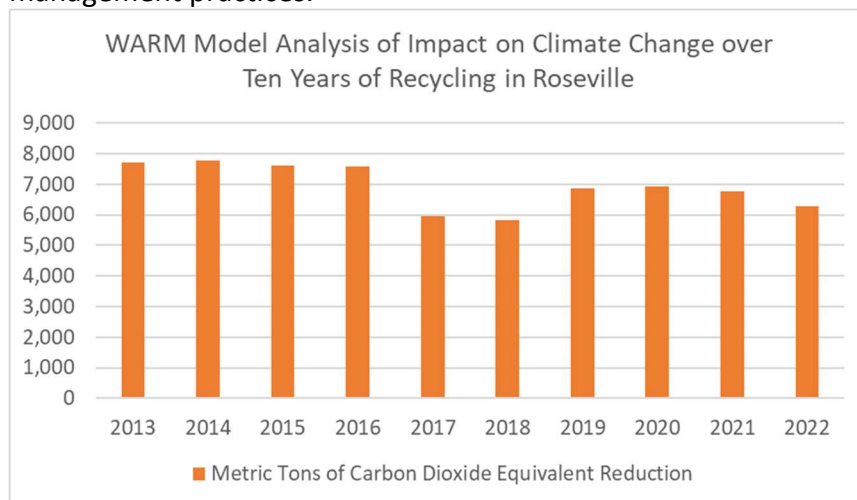
The environmental benefits of Roseville’s zero-waste recycling program are quantified transparently using a widely-accepted environmental model. This ensures that all residents have a chance to see how their efforts can be measured and quantified. There are many ways to calculate the benefits of recycling. To better explain these benefits in 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.

Because of the increasing societal focus on both the causes of and the solutions to climate change, it has become imperative to measure waste reduction (and all of our activities) in terms of its impact on the environment. This allows us to speak in a common language, understand the impact of our choices, and help us prioritize the personal and policy actions that we take. In addition to climate change mitigation, there are other environmental benefits to recycling, including saving energy, protecting air quality, water quality, natural resources, natural beauty, habitat, and human health.

The Environmental Protection Agency (EPA) WARM Calculator

The equations used in environmental 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). Different calculators may include some or all of the many factors that contribute to the “full life cycle” so results will vary from calculator to calculator.

While there are many models emerging to calculate greenhouse gas reductions, the most recognized, and standard model is the U.S. Environmental Protection Agency’s Waste Reduction Model (WARM). WARM was designed to help solid waste planners and organizations track and voluntarily report greenhouse gas emissions reductions from several different waste management practices.



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

According to the WARM model, Roseville's recycling activities in 2022 reduced greenhouse gas emissions by 6,272 MTCO₂E (metric tons of carbon dioxide equivalent).

What do all these numbers mean?

In addition to preventing pollution, an important impact of recycling is that it conserves a huge amount of energy. Making products and packaging from raw materials harvested from nature uses a much larger amount of energy than using recycled materials. Every manufactured item has the energy used to make it "embedded" into it. Recycling takes advantage of that energy, as it is easier and more energy efficient to make a glass bottle from another glass bottle than from raw materials.

The WARM model and other calculators measure the difference between recycling all these tons of materials and using them to make new products versus sending them to an incinerator and making replacement products from raw materials. This difference is expressed as the amount of CO₂ that was not produced because we did not have to make and use all the energy that would have been needed if we used raw materials.

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 <https://www.epa.gov/warm>.

These numbers, however, don't have much meaning 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.

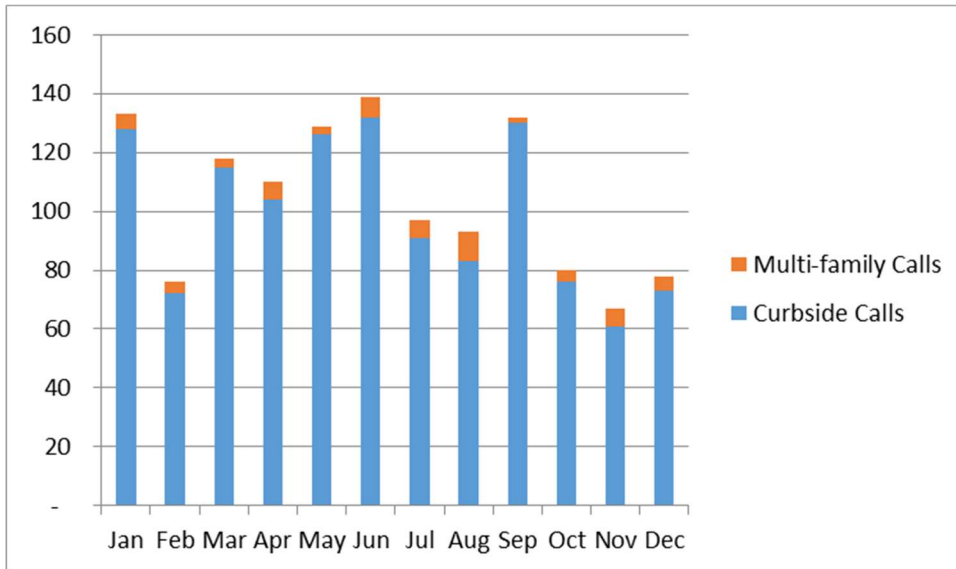
- For example, using the figures above, the EPA estimates that **Roseville would have had to remove 1,332 gasoline-powered cars from the road for one year to have had the same environmental impact in 2022 as they did by recycling.**
- Another way to look at it is that the residents of Roseville saved an amount of energy equivalent to 261,314 propane cylinders for backyard barbeques.

Although WARM is the most widely peer-reviewed and accepted model, it is considered to have several flaws. Many believe the use of this calculator is conservative, and understates the real impact of waste reduction efforts, but it offers a conservative starting place to measure our impacts and work towards our goals. Even with these conservative calculations, the impacts of Roseville's recycling program prove to be quite significant.

2022 Roseville Annual Report from Eureka Recycling

Education Summary for Curbside and Multifamily Programs

ROSEVILLE	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Hotline Calls and Emails													
Curbside Calls	128	72	115	104	126	132	91	83	130	76	61	73	1,191
Multi-family Calls	5	4	3	6	3	7	6	10	2	4	6	5	61
Total Calls	133	76	118	110	129	139	97	93	132	80	67	78	1,252
Requests for Printed Materials	-	5	3	3	1	6	1	1	2	3	2	2	29



Total Number of Stops

Single Family Homes	9,440
Multifamily Buildings	89
Parks	23
Total Number of Stops	9,552

Total Number of Tags Left

Eureka Recycling drivers educate residents at the curb using educational tags for specific problems. In 2022, drivers left approximately 952 educational tags on recyclers' carts.

The most common reason residents received a tag in 2022 were contamination, including plastic bags, bulky plastic items, and other miscellaneous non-recyclable items.

Amount stored, by recyclable material

Most recyclables have not been stored at our facility longer than needed to generate quantities to ship. The only exception to this rule is a small amount of wet strength boxboard—see the “Recycling Market Outlook” section of this report for details on the current situation.

The markets generally used for the sale of recyclables

Eureka Recycling continues to use the same markets for recyclables as were noted in the RFP. Eureka Recycling has always prioritized supporting local markets. In 2022, 74 percent of the material we processed stayed in Minnesota, 94 percent in the Midwest, and 98 percent stayed in the US.

Parks Recycling

We provided service to 23 Roseville Parks in 2022, with most of them being serviced as part of our regular routes collecting from multifamily or single family homes.

As agreed, we separately tracked tonnage for the dedicated park route collecting 37 carts located in Central Park Lexington and Central Park Victoria West at the pavilions, near the ballfields, and along the pathways, which were collected weekly in 2022.

Overall, collection in this park increased by 37% in 2022 when compared to 13,260 lbs collected in 2021.

Month	Pounds of Recycling Collected
May	2500
June	4300
July	3880
August	3380
September	2660
October	1500
Total	18220

Participation Trend Study Report

Over the past few years, Eureka Recycling has transitioned away from doing participation studies by hand-counting the number of carts that are out in several 200 household areas throughout each city, and replacing that study with a citywide, digital participation study using data from our digital routing system.

The study spans six weeks. Each time the truck tips a cart, that collection is recorded for that specific address. This data allows us to analyze all collection during a specific study period. The percentage of all addresses in each day's routes that register a tip in a given week is recorded as that week's set out rate, which is then averaged over the course of the study to calculate the city's set out rate.

The reports for each collection day are then sorted by address and duplicates are removed for households that set out more than once during the study period or who have more than one cart. The remaining list of addresses represents all households that participated in recycling at least once during the study, to arrive at the participation rate for the city.

There are some important things to remember when looking at this participation study data:

- For both digital and hand count data, the data is based on a "per building" or "per address" basis. If a cart is out at a duplex or a triplex, we count that address as participating on that day, and if there is not a cart out we count the address as not participating. There is no way for us to know which units are using the cart or carts that are set out. Similarly, for a single family home with two carts, we still count them as one participating address regardless of how many carts are out for collection.
- The "set out rate" is calculated by counting the number of addresses that set out a cart on each collection day, and taking the average of the number of carts set out each day during the six week study period.
- The "Participation Rate" is calculated by counting the percentage of unique addresses that participated in the program at least once during the six week study period.

Participation Trend Study Results for the Past Ten Years

Roseville	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Set Out Rate	53%	76%	78%	77%	76%	75%	85%	77%	79%	77%
Participation Rate	76%	93%	93%	94%	93%	92%	97%	96%	98%	95%

Recycling Market Outlook for 2023

Prices for recycled material reached record highs during the spring of 2022. This was partly due to increased demand as a result of the war in Ukraine and brands increasing their use of recycled content. However, prices began to decline by summer, and cardboard and paper prices decreased significantly during the fall.

While end markets are hopeful that this decline will ease once winter ends, there is no expectation of a return to the high prices of last spring. The decline is attributed to reduced purchasing from consumers as stimulus money has disappeared and high inflation decreased people's discretionary income.

The decrease in consumer purchasing has made more trucking available, but inflation has countered with an increase in cost per mile to ship materials.

Eureka Recycling continues to develop and foster strong relationships within the various end markets, selling all our processed material in 2022 – with the exception of wet-strength boxes (soda and beer boxes). Strategically, our roster holds at least three markets for each material (with the exception of wet-strength boxes and glass). More details on this is provided in the paper markets section. We regularly receive positive comments regarding the quality of the recyclables we sell. Additionally, we continue to focus on local markets, when possible, to contribute to a thriving local economy. In 2022, 74 percent of the material we processed stayed in Minnesota, 94 percent in the Midwest, and 98 percent stayed in the US. These business practices have been in place for years and are reflective of our values around the environmental, economic, and human impacts of recycling. We – along with our municipal partners and residents – have always benefited from these business practices and end market relationships, and that benefit has been even greater than usual in the current market environment.

Paper Markets: WestRock's decision to close their cardboard line last fall deeply impacted the Minnesota and Midwest recycled paper markets. The majority of the paper and cardboard processed at Eureka is sent to WestRock's boxboard line, which is still in operation. This line makes cereal and cracker boxes and does require some cardboard, but their overall cardboard needs have reduced by a third since the closing of their cardboard line. In addition, this closure resulted in an increase in extra cardboard in the Midwest, which contributed to a decrease in prices for cardboard. Other contributors include a slowing economy with less demand for cardboard as consumers reduce discretionary spending. End markets project that this extra material will be eventually absorbed as other mills increase capacity – and when the economy rebounds – though it could take a few years for this to happen.

Additionally, the WestRock cardboard line closure leaves Eureka without a place to send wet-strength boxes. Because this material has an extra plastic lining on it, it needs to be pulped for longer. When it is not, this plastic lining stays with the paper and isn't likely to get recycled. When we remove it and ship it separately, some cardboard mills with the right equipment can pulp it separately for longer to separate the fiber from the plastic. However, as long as cardboard is plentiful and the price is low, mills would rather handle cardboard so are not accepting pop and beer boxes at this time. We don't generate a lot of this material so are waiting a few months to see if cardboard pricing picks up in the spring which would make this material more appealing. We should check in throughout the year regarding the status of this market and whether we can continue to accept this material.

Plastics markets also had a volatile year and varied significantly by material type. Demand for PET bottles started strong and reached record highs in the spring before abruptly plummeting in the summer. Most markets believe the cause was a combined effect of a bubble that popped and increased supply that

happens every summer. In the fall PET number crept back up and most believe they'll continue rising until summer (when there is increased supply) when they will likely fall again. Eureka continues to engage with several brands directly about how to connect their corporate commitments to using recycled content with the actual supply chain to realize the flow of PET bottles back into PET bottles.

HDPE Color followed a similar trend as PET but the sale of this material is more reliant on the agriculture industry, as much of this material gets made into drainage tile and piping for farms. When there is significant uncertainty (such as due to a pandemic or concerns about ability to trade agricultural products to other countries) farmers tend not to invest in new irrigation infrastructure, which can negatively impact the HDPE Color markets. HDPE Natural is the same type of plastic as HDPE Color, but because it has no coloring added it is a more versatile product and can be turned into any type of product. Once colorant is added you can only recycle it into darker products. HDPE Natural prices remained relatively high this year and were the steadiest pricing of all plastics.

The third type of plastics we sort, polypropylene (PP, #5) started out strong in 2022 and similar to HDPE Natural, brand demand for this material has drove the price up for most of the year but it too decreased in the summer. Similar to other plastics experts expect this price to rise in the Spring as long as supply chain and staffing issues don't cause significant disruptions.

Metals markets strengthened significantly in the spring of 2022 as the Ukraine war started. This is because Russia is a major exporter of aluminum and the sanctions against Russia drove up demand for the material in other places. These prices began to fall in the summer as demand decreased due to the economy slowing down. Even with the decrease aluminum has remained the most valuable material in the stream (unlike 2021 when HDPE Natural was worth more for a few months). Experts believe that aluminum pricing will remain higher than other materials, although this material is especially sensitive to the impacts of tariffs and trade agreements as well as supply chain issues.

Basket values last year started strong at the beginning of the year and reached a peak in late spring. However, by the end of the year basket values fell to about a third or a quarter of what they were so that the value of the material was less than the cost of the processing. Most experts are optimistic that this is close to the low for this time and that basket values will increase in the spring and potentially cover processing costs by late spring or summer.



2022 Roseville Tonnage Report

Month	Percent	January	February	March	April	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total Tons By Commodity
SUD Route Tons		203.65	164.53	196.53	179.56	179.35	188.20	178.05	197.46	185.38	172.00	171.31	177.41	
MUD Route Tons		41.41	42.86	49.08	43.83	41.29	48.72	43.62	44.79	46.82	43.26	42.90	47.39	
Total Tons		245.06	207.39	245.61	223.39	220.64	236.92	221.67	242.25	232.20	215.26	214.21	224.80	2729.40
Single Stream Composition														
News Mix	29.76%	72.93	61.72	73.09	66.48	65.66	70.51	65.97	72.09	69.10	64.06	63.75	66.90	812.27
Cardboard	15.81%	38.74	32.79	38.83	35.32	34.88	37.46	35.05	38.30	36.71	34.03	33.87	35.54	431.52
Mixed Paper	17.37%	42.57	36.02	42.66	38.80	38.33	41.15	38.50	42.08	40.33	37.39	37.21	39.05	474.10
Aluminum Cans	2.23%	5.46	4.62	5.48	4.98	4.92	5.28	4.94	5.40	5.18	4.80	4.78	5.01	60.87
Steel Cans	1.91%	4.68	3.96	4.69	4.27	4.21	4.53	4.23	4.63	4.44	4.11	4.09	4.29	52.13
HDPE NAT	0.94%	2.30	1.95	2.31	2.10	2.07	2.23	2.08	2.28	2.18	2.02	2.01	2.11	25.66
HDPE Col	0.80%	1.95	1.65	1.95	1.78	1.75	1.88	1.76	1.93	1.85	1.71	1.70	1.79	21.70
PET	4.79%	11.73	9.93	11.75	10.69	10.56	11.34	10.61	11.59	11.11	10.30	10.25	10.76	130.62
Tubs and Lids	0.68%	1.66	1.41	1.67	1.51	1.50	1.61	1.50	1.64	1.57	1.46	1.45	1.52	18.50
Mix Glass	16.91%	41.44	35.07	41.53	37.78	37.31	40.06	37.48	40.96	39.27	36.40	36.22	38.01	461.54
Milk Cartons/Juice Boxes	0.38%	0.92	0.78	0.93	0.84	0.83	0.89	0.84	0.91	0.87	0.81	0.81	0.85	10.28
Residual	8.44%	20.67	17.49	20.72	18.84	18.61	19.98	18.70	20.43	19.59	18.16	18.07	18.96	230.23
Totals	100.00%	245.06	207.39	245.61	223.39	220.64	236.92	221.67	242.25	232.20	215.26	214.21	224.80	2729.42

Potential Revenue Share Value for Roseville, 2022

Single Stream Composition/ Value per ton per month		January	February	March	April	May	June	July	August	September	October	November	December
News Mix	29.76%	\$ 120.00	\$ 120.00	\$ 130.00	\$ 130.00	\$ 130.00	\$ 135.00	\$ 135.00	\$ 130.00	\$ 110.00	\$ 60.00	\$ 40.00	\$ 40.00
Cardboard	15.81%	\$ 160.00	\$ 160.00	\$ 160.00	\$ 160.00	\$ 155.00	\$ 155.00	\$ 155.00	\$ 135.00	\$ 95.00	\$ 55.00	\$ 35.00	\$ 35.00
Mixed Paper	17.37%	\$ 90.00	\$ 90.00	\$ 90.00	\$ 90.00	\$ 90.00	\$ 90.00	\$ 90.00	\$ 60.00	\$ 30.00	\$ -	\$ -	\$ -
Aluminum Cans	2.23%	\$ 1,851.67	\$ 2,051.67	\$ 2,372.83	\$ 2,275.00	\$ 2,275.00	\$ 1,883.33	\$ 1,587.50	\$ 1,545.00	\$ 1,494.00	\$ 1,410.00	\$ 1,350.00	\$ 1,370.00
Steel Cans	1.91%	\$ 210.00	\$ 210.00	\$ 210.00	\$ 210.00	\$ 210.00	\$ 208.33	\$ 194.38	\$ 190.00	\$ 190.00	\$ 171.67	\$ 149.17	\$ 142.50
HDPE NAT	0.94%	\$ 1,170.00	\$ 1,096.67	\$ 1,016.43	\$ 1,101.88	\$ 1,130.00	\$ 1,086.67	\$ 950.00	\$ 950.00	\$ 830.00	\$ 1,016.67	\$ 1,245.00	\$ 1,297.00
HDPE Col	0.80%	\$ 470.00	\$ 470.00	\$ 613.00	\$ 668.00	\$ 660.00	\$ 627.00	\$ 463.75	\$ 228.00	\$ 135.00	\$ 158.00	\$ 205.00	\$ 205.00
PET	4.79%	\$ 459.17	\$ 611.27	\$ 762.86	\$ 898.75	\$ 905.00	\$ 816.67	\$ 571.25	\$ 180.00	\$ 170.00	\$ 188.33	\$ 215.83	\$ 225.00
Tubs and Lids	0.68%	\$ -	\$ -	\$ -	\$ 32.50	\$ 32.50	\$ 95.00	\$ 95.00	\$ 91.25	\$ 30.00	\$ 25.00	\$ 15.00	\$ 11.00
Mix Glass	16.91%	\$ (32.30)	\$ (31.04)	\$ (30.62)	\$ (31.21)	\$ (30.71)	\$ (30.42)	\$ (32.16)	\$ (32.08)	\$ (31.97)	\$ (32.57)	\$ (31.89)	\$ (32.40)
Milk Cartons/Juice Boxes	0.38%	\$ 2.50	\$ 2.50	\$ 2.50	\$ 2.50	\$ 2.50	\$ 2.50	\$ 2.50	\$ 2.50	\$ 2.50	\$ 2.50	\$ 2.50	\$ 2.50
Residual	8.44%	\$ (97.06)	\$ (98.15)	\$ (96.92)	\$ (97.57)	\$ (96.44)	\$ (101.13)	\$ (98.37)	\$ (98.45)	\$ (97.88)	\$ (98.23)	\$ (99.35)	\$ (97.85)
SubTotals	100.00%	\$ 145.01	\$ 156.19	\$ 174.14	\$ 179.76	\$ 179.65	\$ 167.56	\$ 146.30	\$ 114.79	\$ 93.47	\$ 67.49	\$ 60.39	\$ 61.65
Rev Share	80%	\$ 116.01	\$ 124.95	\$ 139.31	\$ 143.81	\$ 143.72	\$ 134.04	\$ 117.04	\$ 91.83	\$ 74.78	\$ 53.99	\$ 48.31	\$ 49.32
Processing fee	\$75												
Net value per ton		\$ 41.01	\$ 49.95	\$ 64.31	\$ 68.81	\$ 68.72	\$ 59.04	\$ 42.04	\$ 16.83	\$ (0.22)	\$ (21.01)	\$ (26.69)	\$ (25.68)

Roseville Recycling Tonnage	245.06	207.39	245.61	223.39	220.64	236.92	221.67	242.25	232.20	215.26	214.21	224.80	2,729.40
Total Potential Revenue Share	\$ 10,050.35	\$ 10,358.84	\$ 15,794.88	\$ 15,371.74	\$ 15,162.95	\$ 13,988.75	\$ 9,319.42	\$ 4,078.00	\$ (51.39)	\$ (4,523.04)	\$ (5,716.47)	\$ (5,772.59)	\$ 78,061.44

2022 Estimated Tonnage by Multifamily Building

Multifamily building tonnage is estimated based on each building's service level, the volume of recycling collected at each building on a weekly basis, and the total tonnage collected from Multifamily buildings in the City of Roseville.

customer code	Business Name	civic	street	Total pounds of recycling	Units	Pounds Per Unit
MULTRSV1897	1144 Dionne Street	1144	Dionne St	4,127	23	179.43
MULTRSV1892	1363 County Road B	1363	County Rd B	4,127	11	375.18
MULTRSV1909	161 McCarrons Street	161	McCarrons St	2,063	11	187.55
MULTRSV1919	161 Minnesota Avenue	161	Minnesota Ave	3,714	6	619.00
MULTRSV1883	1614 Eldridge Apts	1614	Eldridge Ave	4,127	11	375.18
MULTRSV1886	1615 Eldridge Apts	1615	Eldridge Ave	2,063	11	187.55
MULTRSV1882	1624 Eldridge Apts	1624	Eldridge Ave	3,920	11	356.36
MULTRSV1885	1625 Eldridge Apts	1625	Eldridge Ave	2,063	11	187.55
MULTRSV1880	1634 Edlridge Apts	1634	Eldridge Ave	2,063	11	187.55
MULTRSV1884	1635 Eldridge Apts	1635	Eldridge Ave	2,063	11	187.55
MULTRSV1890	2125-2133 Pascal Street	2125	Pascal St	4,127	22	187.59
MULTRSV1876	2180 Haddington Road	2180	Haddington Rd	3,095	4	773.75
MULTRSV1872	2447 County Road B	2447	County Rd B	4,127	17	242.76
MULTRSV1941	2610 Snelling Curve	2610	Snelling Curve	3,714	17	218.47
MULTRSV1947	2900 Highcrest Road	2900	Highcrest Rd	3,920	11	356.36
MULTRSV1946	2950 Highcrest Road	2950	Highcrest Rd	2,063	11	187.55
MULTRSV1937	Applewood Pointe	1480	Applewood Court	46,220	94	491.70
MULTRSV2688	Applewood Pointe at Central Park	2665	Victoria St N	28,392	106	267.85
MULTRSV2191	Applewood Pointe at Langton Lake	1996	Langton Lake Dr	14,444	89	162.29
MULTRSV1978	Aquarius Apartments	2425	County Rd C2	12,380	99	125.05
MULTRSV1925	Bonaventure	3090	Lexington Ave N	5,159	30	171.97
CDLRV1912	Cedarholm Golf Course	2323	Hamline Ave N	3,301	NA	NA
MULTRSV1936	Centennial Gardens East & West	1420	Centennial Dr	14,857	190	78.19
MULTRSV2413	Cherrywood Pointe at Cleveland	2996	Cleveland Ave N	7,222	50	144.44
MULTRSV2684	Cherrywood Pointe at Lexington	2680	Lexington Ave N	5,778	115	50.24
CDLRV1930	City Hall (Roseville)	2660	Civic Center Dr	7,428	NA	NA
MULTRSV1940	Coventry Seniors Apartments	2820	Snelling Ave	12,380	196	63.16
MULTRSV1901	Dale Terrace Apartments	720	County Rd B	7,428	42	176.86
MULTRSV1893	Dellwood Condominiums	1725	Dellwood St	4,127	12	343.92
MULTRSV1981	Eagle Crest (RSV)	2925	Lincoln Dr	47,458	218	217.70
MULTRSV1948	Executive Manor Condos	3153	Old Highway 8	16,507	72	229.26
CDLRV1933	Fire Station 1 (Roseville)	2701	Lexington Ave	1,651	NA	NA
MULTRSV1877	Garley Apartments	1634	County Rd B	1,444	11	131.27
MULTRSV2023	Greenhouse Village	1021	Larpenteur Ave	26,412	102	258.94
MULTRSV1950	Hamline House Condos	2800	Hamline Ave	19,809	150	132.06
MULTRSV1934	Hamline Terrace	1360	Terrace Dr	18,571	102	182.07
MULTRSV1905	Heritage Place	563	County Rd B W	17,333	51	339.86
MULTRSV1918	Hillsborough Manor	2335	Woodbridge St	44,570	206	216.36
MULTRSV1914	Karie Dale Apartments	2355	Dale St N	8,254	44	187.59
MULTRSV1963	Keystone Communities (Roseville)	2750	Victoria St	12,380	106	116.79
MULTRSV1926	Lake Josephine Condominiums	3076	Lexington Ave N	5,159	23	224.30
MULTRSV1910	Lar Dale Apartments	655	Larpenteur Ave W	2,063	17	121.35
MULTRSV1900	Lexington Court	2192	Lexington Ave	8,254	52	158.73

MULTRSV1898	Lexington Twin Apartments	1890	Lexington Ave	5,159	22	234.50
MULTRSV1899	Lexlawn/Roselawn Apartments	1943	Lexington Ave	3,714	34	109.24
MULTRSV2487	McCarrons Lake Condos	185	McCarrons Blvd N	7,428	42	176.86
MULTRSV1873	Midland Grove Condos	2200	Midland Grove Rd	47,046	174	270.38
MULTRSV1939	Northwestern College Apartments	1610	Lydia Ave	3,301	40	82.53
MULTRSV1938	Northwestern College/Snelling Terrace	2906	Snelling Dr E	11,349	48	236.44
MULTRSV1954	Palisades	560	Sandhurst Dr W	41,268	330	125.05
MULTRSV1932	Parkview Estate Condominiums	2670	Oxford St	16,507	204	80.92
MULTRSV1904	Parkview Manor	2202	Dale St N	4,127	34	121.38
MULTRSV1983	Parkview Terrace Condos	2690	Oxford St	11,555	105	110.05
CDLRSV1931	Public Works Garage (Roseville)	1140	Woodhill Dr	9,904	NA	NA
MULTRSV1921	Ramsey Square Condos	2710	Dale St N	26,618	192	138.64
MULTRSV1913	Riviera Apartments	925	Highway 36 W	14,031	64	219.23
MULTRSV1944	Rose 8 Apartments	3050	Old Highway 8	8,254	85	97.11
MULTRSV1903	Rose Hill Estates	591	County Rd B	6,190	51	121.37
MULTRSV1891	Rose Mall Apartments	2201	Albert St	24,761	54	458.54
MULTRSV1878	Rose Park Commons	1610	County Rd B	2,063	11	187.55
MULTRSV1887	Rose Park Estates	2136	Fry St	3,920	22	178.18
MULTRSV1894	Rose Vista Apartments	1222	Rose Vista Ct	14,444	175	82.54
MULTRSV1985	Rosedale Estates North	2835	Rice St	13,206	180	73.37
MULTRSV1956	Rosedale Estates South	2735	Rice St	13,206	180	73.37
MULTRSV1953	Roselawn Village	1074	Roselawn Ave	4,127	32	128.97
MULTRSV1942	Rosepointe	2545	Hamline Ave N	99,044	190	521.28
MULTRSV1879	Roseridge Estates	2086	Samuel St	7,222	18	401.22
MULTRSV1955	Rosetree Apartments	655	Highway 36	12,380	48	257.92
MULTRSV1907	Roseville Arms Condos	160	Elmer St	4,127	34	121.38
MULTRSV1958	Roseville Commons	2496	County Rd C2 W	5,159	30	171.97
MULTRSV1979	Roseville Estates	2599	Lexington Ave	14,031	113	124.17
MULTRSV1911	Roseville Seniors	1045	Larpenteur Ave W	28,888	127	227.46
MULTRSV1896	Roseville Terrace	1759	Dunlap St	6,603	36	183.42
MULTRSV2162	Roseville Townhomes	3085	Old Highway 8	12,380	41	301.95
MULTRSV1888	Rosewood Village	1630	Highway 36 W	29,713	219	135.68
MULTRSV1889	Sienna Green Apartments	2275	Snelling Ave	8,254	170	48.55
CDLRSV1929	Skating Center	2661	Civic Center Dr	11,555	NA	NA
MULTRSV1881	Skillman Villas	1629	Skillman Ave	3,095	14	221.07
MULTRSV1924	South Oaks Apartments	1080	County Rd D W	3,095	25	123.80
MULTRSV2597	Suite Living	197	County Rd B2 W	4,127	25	165.08
MULTRSV1951	Sun Place Apartments	1721	Marion St	5,778	30	192.60
MULTRSV1957	Sunrise Assisted Living	2555	Snelling Ave N	33,427	77	434.12
MULTRSV1945	Talia Place	3020	Old Highway 8	4,952	11	450.18
MULTRSV1935	Terrace Park Apts	1420	Terrace Dr	4,127	36	114.64
MULTRSV1964	The Lexington (Roseville)	2775	Lexington Ave N	19,809	150	132.06
MULTRSV1984	The Riviera 2	885	Highway 36 W	5,365	32	167.66
MULTRSV1960	Victoria Place	2250	Victoria St N	12,380	58	213.45
MULTRSV1906	Villa Park Community Condominiums	500	County Rd B	11,142	100	111.42
MULTRSV2044	Villas at Midland Hills	1940	Fulham St	11,142	32	348.19

Eureka Recycling Composition Analysis Methodology

Eureka Recycling collects materials in a single sort collection system with all paper, cardboard, metal and plastic, steel, aluminum and glass containers combined by residents into one cart. Each year we conduct an annual composition study of the single sort material to determine the percentage each material represents in the overall composition.

(651) 222-SORT (7678)

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.



Composition by Commodity of Each Recycling Stream

During the composition study we weigh each truck before and after to determine the weight of the material. Each truck has a stored weight that is updated regularly for accuracy. This process allows us to determine the initial weight of the material set out by residents during the period being analyzed.

The composition study starts with Eureka Recycling storing all of the materials collected in the city during a one-week period. These materials are stored in a separate bunker from all other materials at the facility. We sort the material separately from all other recycling at the facility.



The sorted materials are then baled or put into a hopper and transported with a forklift to the truck scale to be weighed. Finally, we weigh the total amount of each sorted material grade including the non-recyclable material (residual) to establish the percentage of the total tonnage that each material type represents in the overall composition.

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Participation Trend Analysis Methodology

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

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The **set-out rate** is the average number of households that set materials out for recycling collection on a given day. Not every household sets out their recycling each week. If they are out of town, forget, or simply don't have very much in their cart they may not have a cart out for collection on their day. The set-out rate is the average percentage of households that set out material on a weekly basis during the study period.

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.



The **participation rate** is the number of households who set materials out for recycling collection at least once over the period of the study.

The participation rate is a better indication of overall recycling participation because it includes households that recycle at least once over the course of six weeks, 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.

Summary of Process

The study spans six collection weeks. Each time the truck tips a cart, that collection is recorded for that specific address. This data allows us to analyze all collection during a specific study period. The percentage of all addresses in each day's routes that register a tip in a given week is recorded as that week's set out rate, which is then averaged over the course of the study.

The reports are then sorted by address and duplicates are removed for households that set out more than once during the study period. The remaining list of addresses represents all households that participated in recycling at least once during the study, to arrive at the participation rate for the city.

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