

WASTE REDUCTION & RECYCLING REPORT

Community Diversion Rate

A diversion rate compares the amount of material that was recycled or composted with total waste generated by the community. Fort Collins tracks trends in the community by measuring diversion rates as well as per-capita volumes of trash generated.

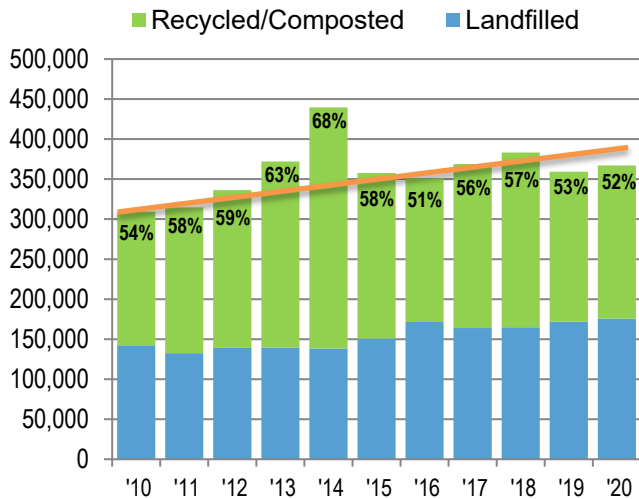
Fort Collins' overall Community-wide Diversion Rate includes all residential, commercial, and industrially-generated trash and recyclable materials. **The Fort Collins Community Diversion Rate in 2020 was 52%.**

Drivers for change in Community Diversion Rate from 2019 – 2020

- Additional organics were recycled across the board, from commercial wood waste to residential yard trimmings
- With less incoming material, asphalt recycling decreased
- There was a shift from waste in the commercial sector to the residential sector
- Roofing materials landfilled continued to increase from the 2019 hailstorm

Details are included in the text on page two.

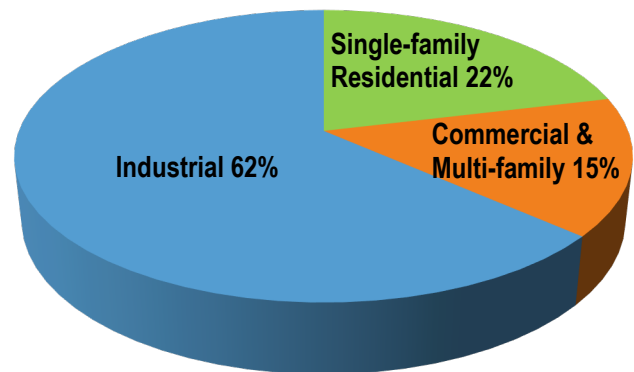
COMMUNITY DIVERSION RATES SINCE 2010



DIVERSION RATES BY SECTOR IN 2020

RESIDENTIAL	29.0%
COMMERCIAL / MULTI-FAMILY	30.3%
INDUSTRIAL	65.5%

PERCENTAGE OF TOTAL COMMUNITY WASTE AND RECYCLING GENERATED BY SECTOR IN 2020



CHANGE IN COMMUNITY DIVERSION RATE FROM 2019 – 2020



CHANGE IN POUNDS OF LANDFILLED MATERIAL PER CAPITA PER DAY FROM 2019 – 2020



CHANGES IN 2020 COMMUNITY DIVERSION RATE

COVID-19 Pandemic

The COVID-19 pandemic impacted all segments of our community and the world, including the waste industry.

Stay-at-home orders forced many businesses to close their doors. Increases in staying and working from home caused a 6,000-ton shift from commercial waste to residential waste. As many people took the opportunity to clean out their homes, the residential sector saw an additional 3,000-ton growth in waste, much of which was from individuals self-hauling waste to the Larimer County Landfill.

Online and remote shopping also generated larger volumes of cardboard and other packaging: both the Timberline Recycling Center and Larimer County Landfill Recycling Drop-off Center saw 25% increases in cardboard.

Increased use of Personal Protective Equipment, including disposable masks and disposable gloves, although unlikely to have significantly impacted the diversion rate, were certainly consumed and disposed of at higher rates than previous years. Many restaurants, coffee shops and grocers also suspended acceptance of reusable mugs, bags and other reusable items. These trends coincided with an increased awareness in the community about single-use items, particularly single-use plastic.

The pandemic also interrupted many industrial operations, including municipal industrial operations. Less asphalt was generated from projects put on pause, leading to over 15,000 tons less asphalt recycled in 2020.

More Roofing Materials

2020 is also the second year that roofing data has been available and included in the Community Diversion Rate. Thousands of Fort Collins roofs impacted by the massive hailstorm in July 2019 continued to be replaced in 2020, yielding a 6,000 ton increase in roofing waste compared with 2019.

Increased Organics Recycling

Organics were mulched and composted at higher rates in all sectors:

- Commercial wood waste recycled into mulch nearly doubled in 2020
- Commercial and residential yard trimming recycling increased by 33% and 64% respectively
- Residential food scraps collected, while a small volume, grew substantially (by 83%)
- There was an 8% decrease in “other organics” as the City suspended its Christmas Tree recycling program due to budget cuts (trees were instead mulched at other locations, and are part of the increase seen in residential yard trimmings), and the compost program at the City’s Hoffman Mill Crushing facility was placed on hold.

Residential Trash and Recycling Cart Sizes

Cart size	Residents subscribed	Change from 2019
Intermittent / pay-by-the bag	1%	21%
32 gal trash cart	39%	1%
64 gal trash cart	38%	0%
96 gal trash cart	22%	1%
<hr/>		
18 gal recycling tub	13%	3%
32, 64 or 96 gal recycling cart	87%	0%*
<hr/>		
64 or 96 gal yard trimmings collection cart	15%	1%

* slight decrease in number of customers overall rather than shift from container size

2020 PROGRAM UPDATES

Single-Use Plastics Policy

In 2019, Fort Collins City Council adopted plastics pollution as a priority, with special emphasis on single-use plastics, which can have negative impacts on the health of our wildlife and waterways.

Staff worked throughout 2020 to research potential policies to reduce single-use plastic pollution, rolled out an educational campaign to encourage single-used plastic reduction in homes and businesses, and launched the Pick It Up FoCo Challenge to encourage litter collection and collect data on plastic waste in our community.



City Council requested staff develop an ordinance to ban plastic bags and place a fee on paper bags at all large grocers, with a goal of referring the ordinance to voters at the April 2021 election.

Community Recycling Ordinance (CRO) Delay

Passed in 2016, the Community Recycling Ordinance requires waste haulers to provide recycling services to all businesses and multifamily complexes in Fort Collins City limits by December 31, 2020. In response to requests from local waste haulers impacted by the pandemic, City Council approved a delay in the deadline of this requirement, moving the deadline to extend recycling services to June 30, 2021.

Regional Wasteshed Planning

The Solid Waste Infrastructure Master Plan, developed through regional collaboration with Loveland, Estes Park and Larimer County was unanimously adopted through Intergovernmental Agreement (IGA) in 2019.

The coalition continues to work together to implement the Master Plan, working toward a yard trimmings and food scrap compost facility and construction and demolition waste sorting facility, as well as a transfer station and new landfill.

Our Climate Future Planning

Our Climate Future is an equity-centered combined update to the City's Climate Action Plan, Energy Policy, and Road to Zero Waste Plan.

The Road to Zero Waste plan was originally adopted by City Council in 2013 and has served as a strategic document for the work of the Waste Reduction & Recycling Team and Environmental Services Department. The Our Climate Future process is an update to this plan, including a review of interim Zero Waste Goals to adapt priorities and strategies to changes that have occurred at global and local levels since the plan was first developed.

Throughout 2020, the Our Climate Future Planning process continued, building upon the initial engagement efforts that began the previous year.

Staff continued to work with community members, stakeholders and community partners to identify and understand community priorities. These community priorities then guided a strategic planning process throughout the spring into the fall.

This work generated "Big Moves" and "Next Moves" to meet our climate, energy and zero waste goals. Continued public engagement around these moves, and creation of a draft Our Climate Future Plan continues into 2021.



WRAP (Waste Reduction & Recycling Assistance Program)

Due to the pandemic, requests for assistance from businesses and apartment complexes decreased. However, staff still provided materials and recycling education to dozens of businesses and apartment complexes, reaching more than 5,000 community members.

Timberline Recycling Center (TRC)

The City of Fort Collins' Timberline Recycling Center entered its fourth full year of operations at the Timberline Rd. site in 2020. Residents and businesses recycled record volumes of materials in 2020.

Over 370 visitors per day recycled glass, cardboard, paper, and other conventional recyclables in the Everyday Recyclables Yard, generating a 25% increase in the amount of cardboard recycled at the site.

Compared to 2019, nearly 500 more residents and businesses recycled items in the Hard-to-Recycle Materials Yard, with 19,283 visits in 2020 dropping off 25% more scrap metal and 7% more wood scrap and yard trimmings.

In 2019, a white-paper-only bin was introduced to the Everyday Recyclables Yard, recognizing that sorted white office paper is in high demand by recycling markets and can be made into higher grade paper than when mixed with other types of paper. In 2020, the amount of white paper collected at the TRC nearly tripled as residents and businesses began to use the bin more frequently.



Thanks to funding from the Fort Collins Stormwater Utility, community members dropped off antifreeze, batteries, motor oil and/ or paint (ABOP) without having to pay the \$5 Hard-to-Recycle Yard entry fee. In 2020 the program no longer accepted antifreeze and motor oil from commercial customers, and instituted fees for commercial customers dropping off batteries. In 2020, nearly 101 tons of ABOP materials were collected.

TRC User Survey

In May and June 2020, City staff and Recycling Ambassador volunteers spoke with TRC Everyday Recyclables Yard visitors to better understand their use of the site. Results include:

- 55% of users live in Fort Collins city limits
- 94% of users were bringing materials from a single family home; 4% from a business and 2% from both
- 77% of visitors who are Fort Collins residents and 66% of non-residents have options to recycle elsewhere, but choose the TRC
- The majority of visitors with other recycling options come to the TRC to recycle large or excess cardboard or other recyclables, and to recycle their glass separately from other materials

Recycling Ambassadors Volunteer Program

Along with many other volunteer programs, the Recycling Ambassador program operated differently throughout 2020 due to COVID-19. During the stay-at-home order, volunteer shifts at the Timberline Recycling Center were briefly paused. After stay-at-home orders were lifted and safety guidelines were put in place (PPE, symptom checks etc.), Recycling Ambassadors resumed shifts at the Timberline Recycling Center. They assisted visitors with unloading and sorting of recyclables and answered questions about recycling right.

Volunteers also helped support a survey of visitors to the Everyday Recyclables Yard in May and June. The survey data was used to help understand why visitors use the Center and where they come from.

In total, a group of 47 volunteers contributed approximately 1,000 hours in 2020.

Definitions and Notes

Non-industrial diversion rate: includes waste generated by single-family residential, multi-family residential, and commercial sectors.

Industrial diversion rate: includes materials such as waste generated by City government operations, concrete and asphalt recycled at crushing facilities, construction and demolition waste, brewery wastes, and biosolids that are land-applied.

Community diversion rate: the combined total of industrial and non-industrial wastes – provides an overall view of waste generation and waste diversion for the entire community.

Note about *Alternative Daily Cover (ADC)*: Each day, landfills are legally required to cover the day's contents with soil or another approved material. Various materials can be used as ADC, including wood, drywall or yard waste. Because many of these materials have "higher and better" uses, the City does not include ADC as diversion in its calculations, unlike some other entities, including the State of California.

Notes about Appendix 1 (detailing Fort Collins' waste and recycling):

- data are updated over time as new information becomes available or new methodologies emerge. Appendix 1 is updated yearly, which may result in the data in this appendix not matching the initial report.
- Yellow-shaded boxes are included in the Non-Industrial (MSW) totals
- Orange-shaded boxes are included in the Industrial totals.

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2020 Fort Collins Community Waste & Recycling Summary

Recyclables	
Residential Curbside Recycling	Tons
Single-stream	9,230
Curbside Total:	9,230
Multifamily & Commercial Recycling	
Commercial single-stream	4,266
Multi-family single-stream	658
Paper Mix (ONP, OMX, etc)	62
Office paper	0
Corrugated Cardboard	1,140
Glass	2,199
Commingled containers (aluminum, steel, glass, plastic)	55
Multi-Family & Commercial Total:	8,380
Drop-off Centers	
Corrugated cardboard	808
Paperboard, low-grade paper	0
Mixed Paper	471
Commingled containers	148
Glass	383
White Office Paper	31
Hard-to-recycle items from Timberline Recycling Center	111
Drop-off System Total:	1,952
Other Recyclables	
Electronics	106
Plastic bags / shrink wrap	107
Textiles	0
Total Other:	213
TOTAL MSW RECYCLING TONS	19,775
Industrial Recyclables	
Scrap metal (ferrous) -- iron, steel	22,835
Concrete	22,779
Asphalt	47,991
Other aggregate / soil	25,449
Total Industrial Recycling Tons	119,055
TOTAL RECYCLING TONS	138,830

Organics	
Residential / Commercial Organics	Tons
Food Waste (Residential)	104
Food Waste (Commercial)	1,395
Yard Waste (Residential)	7,796
Yard Waste (Commercial)	7,048
Total MSW Organics	16,344
Industrial Organics	
Spent brewery grain	361
Wood waste (Commercial)	23,487
Other organics (Industrial)	4,324
Biosolids	1,979
Total Industrial Organics	30,151
TOTAL ORGANICS TONS	46,495

Landfill	
Tons of Solid Waste Landfilled	Tons
Residential	57,977
Multi-family	4,409
Commercial	34,713
Industrial	75,847
Alternative Daily Cover (soils used to meet landfill cover needs)	2,624
TOTAL LANDFILL TONS	175,569

Recycling Participation	
Customer Type	% of Customer w Recycling
Residential	95%
Residential yard trimmings collection	11%
Multi-family	79%
Commercial	48%
Industrial	8%
Total customers with recycling	90%

Non-Industrial Totals (MSW)	Residential	Commercial	Overall	Lbs / Capita / Day
Total Landfill	57,977	39,122	97,099	3.04
Total Organics Composted	7,900	8,444	16,344	0.51
Total Recycling	11,182	8,593	19,775	0.62
PAYT Source Reduction "tons"	4,624	n/a	4,624	0.14
Total Disposed	81,683	56,159	137,841	4.32
Diversion Rate	24.8%	30.3%	27.1%	
Diversion Rate w/ Source Reduction	29.0%	n/a	29.6%	

Industrial Totals	Tons	Lbs/Cap/Da
Total Landfill	75,847	2.38
Total ADC	2,624	0.08
Total Organics Composted	30,151	0.94
Total Recycling	119,055	3.73
Total Disposed	227,676	7.13
Diversion Rate	65.5%	
Diversion Rate, ADC as diversion	66.7%	

Combined Totals	MSW	Industrial	Overall	/Day
Total Landfill	97,099	75,847	172,945	5.42
Total ADC	n/a	2,624	2,624	0.08
Total Organics Composted	16,344	30,151	46,495	1.46
Total Recycling	19,775	119,055	138,830	4.35
PAYT Source Reduction	4,624	n/a	4,624	0.14
Total Disposed	137,841	227,676	365,518	11.45
Diversion Rate, no Source Reduction	27.1%	65.5%	51.4%	
Diversion Rate with PAYT Source Reduction	29.6%		52.0%	
Diversion Rate with PAYT Source Reduction, ADC as diversion			52.7%	

single stream recycling totals reduced by 13.7% to account for contamination (and trash totals increased commensurately)