

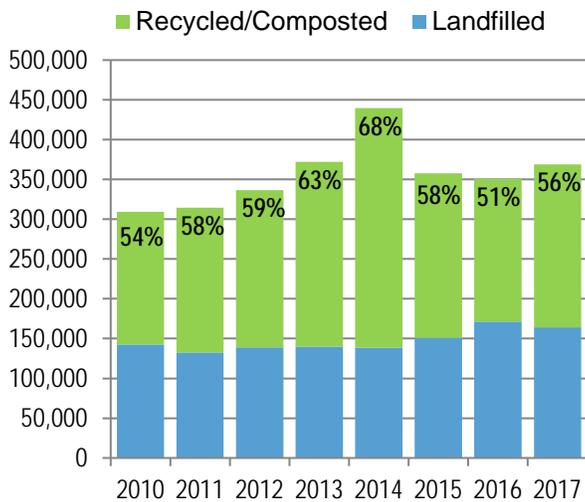
WASTE REDUCTION & RECYCLING REPORT

Community Diversion Rate

A diversion rate compares the amount of material that was recycled or composted compared to the total waste generated by the community. It is useful for tracking trends in the community related to waste generation.

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 2017 was 55.6%.

COMMUNITY DIVERSION RATES SINCE 2010



CHANGE IN COMMUNITY DIVERSION RATE FROM 2016 – 2017



CHANGE IN POUNDS OF LANDFILLED MATERIAL PER CAPITA PER DAY FROM 2016 – 2017



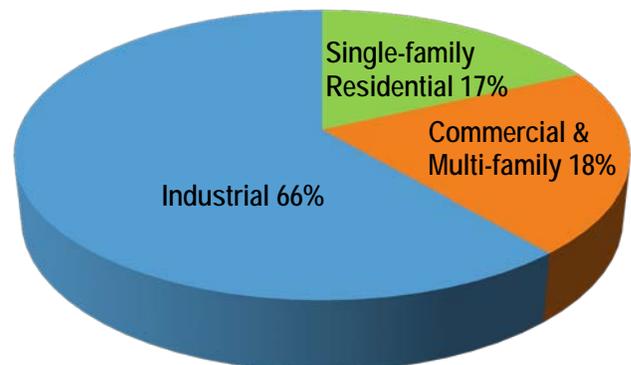
Drivers for change in Community Diversion Rate from 2016 – 2017

- Decreased amount of material landfilled from City government's industrial operations
- More material recycled at the City of Fort Collins Crushing Facility
- Additional wood grinding / composting (more accurately reported than previously)

DIVERSION RATES BY SECTOR IN 2017

RESIDENTIAL	28.7%
COMMERCIAL / MULTI-FAMILY	28.1%
INDUSTRIAL	75.5%

PERCENTAGE OF TOTAL COMMUNITY WASTE AND RECYCLING GENERATED BY SECTOR IN 2017



Residential Trash and Recycling Cart Sizes

The residents of Fort Collins continued to reduce the size of their trash cans and increase the size of their recycling carts in 2017.

Cart size	Residents subscribed	Change from 2015
32 gal trash cart	42%	 4%
64 gal trash cart	35%	 14%
96 gal trash cart	21%	 9%
<hr/>		
32, 64 or 96 gal recycling cart	87%	 12%
18 gal recycling tub	13%	 14%
<hr/>		
64 or 96 gal yard trimmings collection cart	14%	 13%

Municipal Self-Haul to Landfill

Materials landfilled by the City Water Utilities and Streets Department significantly decreased in 2017 compared with 2016, equivalent to a 28% decrease in material landfilled. The amount of material landfilled in 2017 by municipal operations is more consistent with the baseline amount of material landfilled since 2012.

City of Fort Collins Crushing Facility

The City of Fort Collins Streets Department operates a Crushing Facility that accepts materials from the public as well as City operations. Concrete, porcelain, and asphalt are crushed and sold for use as road base, and dirt is screened and sold as fill dirt.

Equipment challenges in 2017 resulted in a 41% decrease in the amount of concrete processed at the facility compared to 2016. However, 46% percent more asphalt was recycled in 2017 compared with 2016 since equipment was able to process the asphalt.

Soils reclamation, another function of the Crushing Facility, were similar to volumes produced in 2016.

Municipal Composting Program

In May 2017, the City of Fort Collins began composting leaves / yard waste generated from City parks and street sweepings. Approximately 500 cubic yards of landscape maintenance material was composted, yielding 230 cubic yards of finished compost, which was used by the City's Parks Department and Natural Area restoration projects.



Timberline Recycling Center

The Timberline Recycling Center completed its first full year of operations in 2017. Two hard-to-recycle yard special events were held, collecting 219 mattresses and box springs, 1,105 pounds of bulky/rigid plastics, 4,500 pounds of shredded paper, and 2,005 pounds of books.

In the everyday recyclables section of the TRC, new image-based signage was installed that provides clearer information for visitors about how to recycle correctly and reduce contamination.

Residential Yard Trimmings Collection

As part of the 2016 Community Recycling Ordinance, residential haulers in Fort Collins were required to offer opt-in collection of yard trimmings from April to November for a separate fee, starting in 2017. The number of residents subscribing to yard trimmings service increased 13% from 2016 to 2017, which was consistent with previous years' increases. In total, 14% of residential trash customers subscribed to yard trimmings collection in 2017.

Grocer Composting

The Community Recycling Ordinance required all grocers have compost collection (for food items that could not be donated) by the end of 2017. All grocers started collection and have reported positive results. Greater employee engagement and significantly reduced landfilling have been reported by many of the grocers. Some have opted to remove trash compactors all together, while others retained them but have less frequent collection. One grocer reported being able to decrease the servicing of their trash dumpster from seven times / week to two or three times / week.

Regional Wasteshed Planning

The collaboration between Larimer County, the Cities of Fort Collins and Loveland, and the Town of Estes Park continued in 2017. Working with a consultant, 11 infrastructure options were analyzed in detail.

Elected officials from all communities collaborated to provide direction in the development of a regional master plan for infrastructure.

Over 60 individuals from diverse sectors of the community participated in the project's stakeholder group, which met regularly throughout 2017 and provided valuable input to the project.

Environmental Compliance Inspection

In 2017, an Environmental Compliance Inspector position was created to focus on the enforcement of waste reduction and other environmental codes. A primary focus is construction and demolition site recycling, which has been required since 2012.

The Environmental Compliance Inspector conducted 70 onsite inspections in 2017, and created new educational materials targeted to this sector. When reporting trends in materials collected for the year, two haulers noted that increased construction and demolition materials were being recycled due to the City enforcing requirements.

The Environmental Compliance Inspector also reviews all incoming development plans for adequate trash and recycling enclosures, which helped identify the need for a comprehensive update of Fort Collins' Land Use Code for trash and recycling enclosures. Code amendments were drafted in 2017, with approval by City Council scheduled for 2018.

WRAP (Waste Reduction & Recycling Assistance Program)

WRAP works with local businesses and apartment complexes to start or improve recycling programs.

During 2017, WRAP worked with 89 businesses and apartment complexes, impacting approximately 6,000 individuals (residents and employees) through increased education and/ or access to recycling.

Recycling Ambassadors Volunteer Program

The Recycling Ambassadors volunteer program was created in 2017 to assist the public at the Timberline Recycling Center (TRC), answering questions and helping transport recyclables to the proper bins.

Twelve volunteers who were trained in 2017 contributed over 500 hours of their time and interacted with more than 1,700 visitors.



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.

Report Prepared By



Caroline Mitchell, Sr. Environmental Planner
Environmental Services

City of Fort Collins

970-221-6288

cmitchell@fcgov.com

fcgov.com/recycling

2017 Fort Collins Community Waste & Recycling Summary

Recyclables	
Residential Curbside Recycling	Tons
Single-stream	9,050
Curbside Total:	9,050
Multifamily & Commercial Recycling	
Commercial single-stream	6,391
Multi-family single-stream	651
Paper Mix (ONP, OMX, etc)	134
Office paper	0
Corrugated Cardboard	1,633
Glass	2,018
Commingled containers (aluminum, steel, glass, plastic)	106
Multi-Family & Commercial Total:	10,933
Drop-off Centers	
Corrugated cardboard	579
Paperboard, low-grade paper	60
Mixed Paper	375
Commingled containers	150
Glass	342
Hard-to-recycle items from Timberline Recycling Center	58
Drop-off System Total:	1,564
Other Recyclables	
Electronics	136
Plastic bags / shrink wrap	36
Textiles	0
Total Other:	172
TOTAL MSW RECYCLING TONS	21,719
Industrial Recyclables	
Scrap metal (ferrous) -- iron, steel	24,113
Concrete	17,204
Asphalt	61,458
Other aggregate / soil	37,696
Total Industrial Recycling Tons	140,471
TOTAL RECYCLING TONS	162,190

Organics	
Residential / Commercial Organics	Tons
Food Waste (Residential)	199
Food Waste (Commercial)	1,228
Yard Waste (Residential)	3,719
Yard Waste (Commercial)	5,804
Total MSW Organics	10,950
Industrial Organics	
Spent brewery grain	1,009
Wood wastes (Commercial)	19,652
Other organics (industrial)	5,227
Biosolids	2,355
Total Industrial Organics	28,243
TOTAL ORGANICS TONS	39,193

Landfill	
Tons of Solid Waste Landfilled	Tons
Residential	45,010
Multi-family	3,829
Commercial	42,642
Industrial	59,009
Alternative Daily Cover (soils used to meet landfill cover needs)	13,500
TOTAL LANDFILL TONS	163,990

Recycling Participation	
Customer Type	% of Customer w Recycling
Residential	96%
Residential yard trimmings collection	12%
Multi-family	77%
Commercial	65%
Industrial	21%
Total customers with recycling	92%

Non-Industrial Totals (MSW)	Residential	Commercial	Overall	Lbs / Capita / Day
Total Landfill	45,010	46,470	91,480	2.99
Total Organics Composted	3,918	7,032	10,950	0.36
Total Recycling	10,613	11,106	21,719	0.71
PAYT Source Reduction "tons"	3,573	0	3,573	0.12
Total Disposed	63,114	64,608	127,722	4.18
Diversion Rate	24.4%	28.1%	26.3%	
Diversion Rate w/ Source Reduction	28.7%		28.4%	

Industrial Totals	Tons	Lbs/Cap/Day
Total Landfill	59,009	1.93
Total ADC	13,500	0.44
Total Organics Composted	28,243	0.92
Total Recycling	140,471	4.60
Total Disposed	241,223	7.89
Diversion Rate	69.9%	
Diversion Rate, ADC as diversion	75.5%	

Combined Totals	MSW	Industrial	Overall	Day
Total Landfill	91,480	59,009	150,490	4.92
Total ADC		13,500	13,500	0.44
Total Organics Composted	10,950	28,243	39,193	1.28
Total Recycling	21,719	140,471	162,190	5.31
PAYT Source Reduction	3,573	0	3,573	0.12
Total Disposed	127,722	241,223	368,945	12.07
Diversion Rate, no Source Reduction	26.3%	69.9%	55.1%	
Diversion Rate with PAYT Source Reduction	28.4%		55.6%	
Diversion Rate with PAYT Source Reduction, ADC as diversion			59.2%	

single stream recycling totals reduced by 8% to account for contamination (and trash totals increased commensurately)