

Recycling and Waste Diversion Statewide Data

Solid Waste and Materials Management Program

Hazardous Materials and Waste Management Division

Zero Waste and Recycling Subcommittee
Presentation - July 10, 2019



COLORADO
Department of Public
Health & Environment

Data Collection and Authority 30-20-122 CRS

- (1)** (a) The department shall collect information and data on recycling, solid waste, and solid waste diversion.
- I) Statewide and regional solid waste stream components such as type of material, quantities of each material, and flow of each material;
 - (II) The proportion of solid waste generated in the state that has been diverted to other uses that may be based upon a model established by the federal environmental protection agency for the purpose of calculating a recycling rate;
 - (III) Reutilized materials, amounts, and rates;

Data Collection Points

Facility Level Reporting

- 165 Recycling Facilities (Material Recovery Facilities, Industrial Recycling, End Users)
 - Confidential Business Information Clause
 - Only report aggregated data, not facility specific
- 38 Composting Operations
- 55 Solid Waste Disposal Sites (Landfills)

Voluntary Reporting

- Exempt Material Processors - Concrete, Scrap Metal, Ag/CESQ Composting
- Out of State Recyclers (e-waste collection events)

Recent Improvements on MSW Diversion Data Collection

Integrated Solid Waste & Materials Management Plan

- Adopt statewide and regional MSW diversion goals (S&HW Commission, 2017)
- Revise landfill reporting requirements to improve the accuracy of MSW data- EPA guidance on measuring MSW recycling (2018)



BURNS & MCDONNELL

IN ASSOCIATION WITH



COLORADO INTEGRATED SOLID
WASTE & MATERIALS
MANAGEMENT PLAN

PREPARED FOR

Colorado Department of Public Health and Environment

June 2016



2018 Colorado Waste Diversion Rates

MSW diversion rate **17.2%**

Total diversion rate **35.4%**

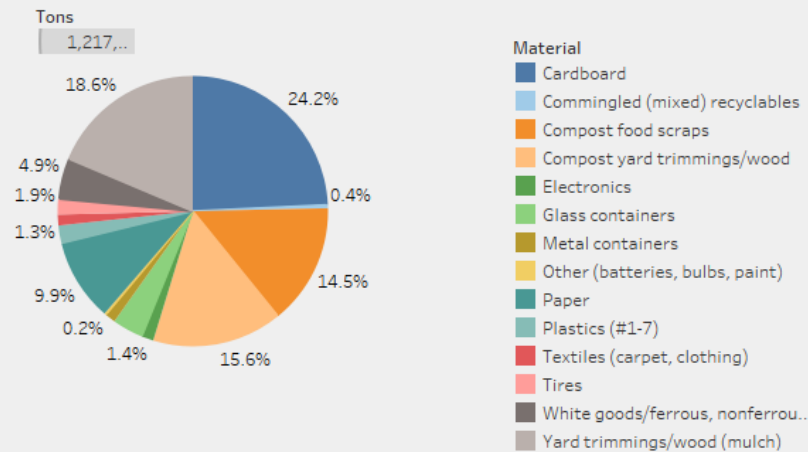
“**MSW diversion rate**” includes the percentage of materials recycled from residential and commercial sources of solid waste, recyclables and compostable materials. US EPA Measuring Recycling 1997 Method

“**Total diversion rate**” consists of waste and materials generated by the industrial sector and MSW including construction and demolition (C&D) debris, manufacturing waste, energy production waste, and other non-hazardous industrial wastes



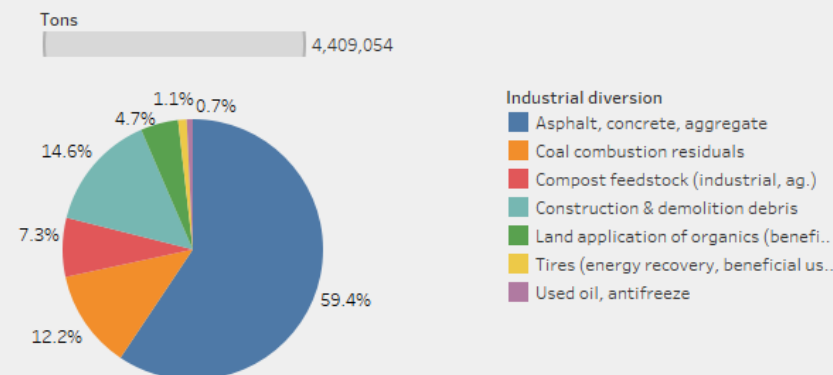
Material Diversion by Sector

MSW diverted materials: 2018 composition



MSW Diversion: 1.2 million tons

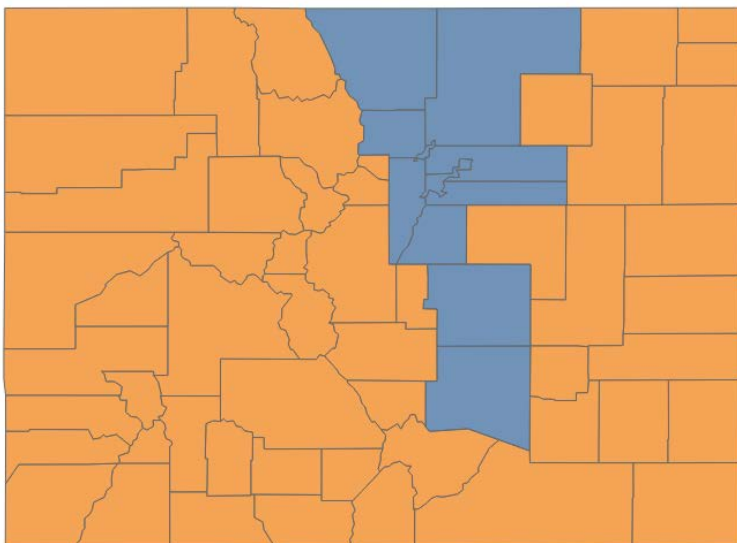
Industrial materials diversion: 2018 composition



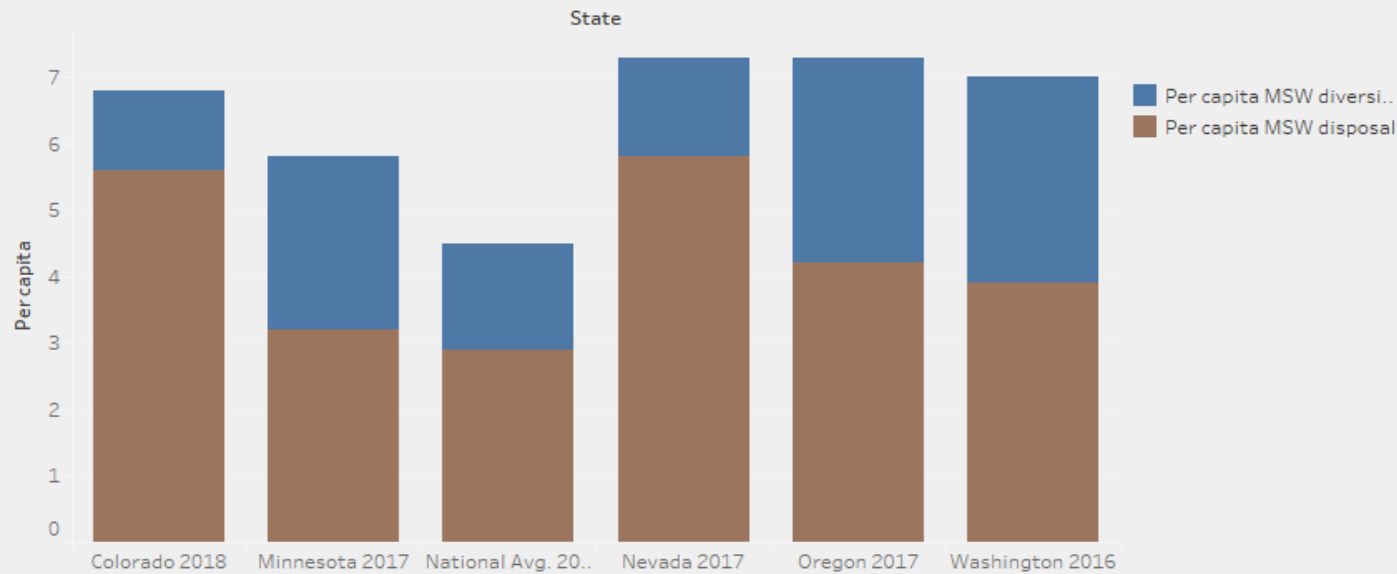
Industrial Diversion: 4.4 million tons

Regional Diversion Rates

Region	2018 Diversion Rate	2021 Diversion Goals	MSW diversion	MSW disposal	Recycling (tons)	Composting (tons)
Front Range Region	18.0%	32.0%	1,115,814	5,072,893	783,678	332,136
Greater Colorado Region	10.7%	10.0%	94,130	788,003	59,741	34,389
Statewide	17.2%	28.0%	1,217,062	5,860,896	850,537	366,525



How Does Colorado Compare? Waste Generation & Diversion in Pounds per Person per Day



State	Per capita MSW diversion	Per capita MSW disposal	Per capita MSW generation	Population
Colorado 2018	1.2	5.6	6.8	5,695,564
Minnesota 2017	2.6	3.2	5.7	5,611,179
Nevada 2017	1.5	5.8	7.3	2,972,000
Oregon 2017	3.1	4.2	7.3	4,141,100
Washington 2016	3.1	3.9	6.9	7,183,700
National Avg. 2015 (EPA)	1.6	2.9	4.5	327,000,000

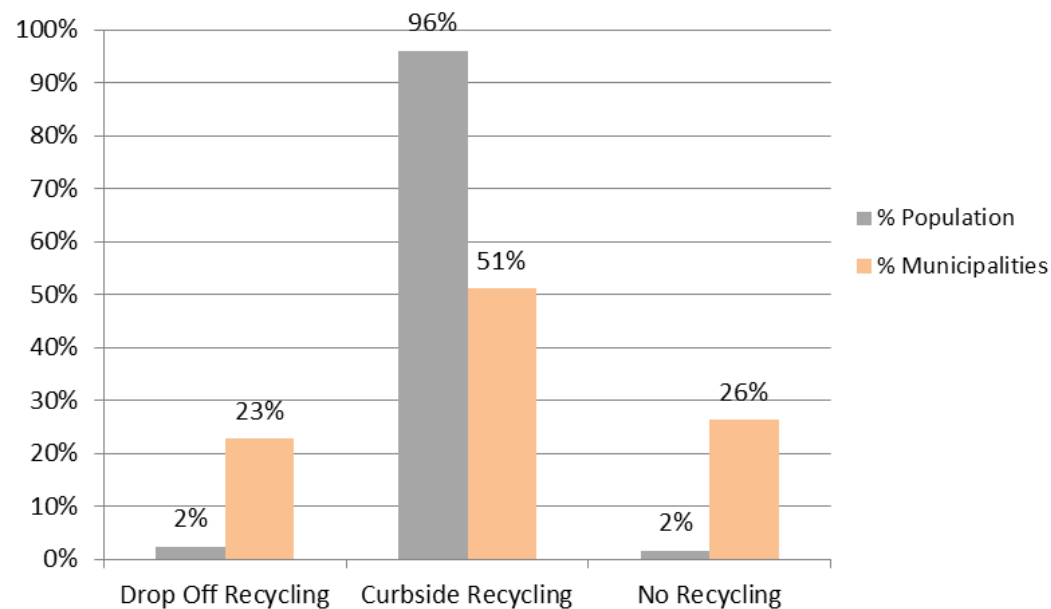
Oregon, Minnesota and Washington are some of the highest performing states for waste diversion that also have comparable data available.

National average data does not align with statewide data, likely due to different data collection method.

Colorado recycles less compared with the other states.

Is Residential Recycling Available?

Access to Residential Recycling in Colorado



Municipalities with a population over 4,000 without curbside recycling: 8

Municipalities with Pay As You Throw (volume based trash rates): 13

Recycling Participation Rate?
Unknown

Impact from Recycling and Composting MSW in Colorado (2018)

- Economic Impact: \$194,929,481
 - Total wages earned from recycling compared to baseline disposal scenario
- Energy Savings: 13,080,970 BTUs
 - Equivalent to conserving the annual energy use of 142,808 households
- Emissions Reduction: 1,805,043 Metric Tons of CO₂E
 - Equivalent to removing annual emissions of 405,643 passenger vehicles

Thank you

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