

# THE STATE OF RECYCLING & COMPOSTING

IN COLORADO

4th edition

2020

FT COLLINS  
LOVELAND

LYONS LONGMONT

BOULDER  
LOUISVILLE

SUPERIOR  
WESTMINSTER

GOLDEN  
ARVADA

NORTHGLENN  
COMMERCE CITY

DENVER

GREENWOOD VILLAGE  
LONE TREE

PUEBLO

ALAMOSA

**eco-cycle**

**CoPIRG**  
Foundation

# 2020 STATE OF RECYCLING & COMPOSTING IN COLORADO

4th annual report



We changed our title to better reflect the role of composting in Colorado.

VIEW THE REPORT ONLINE AT

[WWW.ECOCYCLE.ORG/TAKE-ACTION/ZEROWASTECOLORADO](http://WWW.ECOCYCLE.ORG/TAKE-ACTION/ZEROWASTECOLORADO)

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# STATE OF RECYCLING AND COMPOSTING IN COLORADO: 2020

## EXECUTIVE SUMMARY

**Colorado wasted more and recycled less in 2019 than in 2018, continuing to fall short of our state recycling goals and behind the rest of the nation.** Despite the downward trend, there are dozens of Colorado communities continuing to demonstrate how recycling and composting can be successful in Colorado. In addition, growing national momentum and new statewide policies and investments show great potential to truly accelerate our recycling, composting and waste reduction efforts in the coming years in order to build a circular economy and as a pivotal solution to reduce climate pollution.

**Colorado's statewide recycling rate dropped in 2019 to 15.9%, down from 17.2% in 2018.<sup>i</sup> Colorado continues to lag far behind the national recycling rate of 35% and behind our goal to reach 28% diversion by 2021.<sup>ii</sup>** On average, Colorado residents recycle and compost only 1.1 pounds per person per day, while residents in leading states like Oregon and Washington recycle 3 pounds per person per day—nearly three times more than Colorado residents.<sup>iii</sup>

Colorado continues to produce more municipal waste every year, sending over 6.1 million tons of material to the landfill in 2019—an additional 509,000,000 pounds of trash compared to 2018.<sup>iv</sup> **It is the Front Range that shoulders the blame for our wasteful habits:** The region produced 87% of the state's municipal waste in 2019 and sent 5% more trash to landfills in 2019 than in 2018, greatly outpacing population growth of 1.3%.<sup>v</sup> Front Range residents landfilled a hefty 6 pounds of material per person per day compared to Greater Colorado residents who only landfilled 4.7 pounds per person per day.<sup>vi</sup>

**Despite a disappointing year for recycling overall, there are several significant bright spots around the state.** The cities of Aspen, Boulder, Durango, Fort Collins, and Loveland are leading the way as the top recycling programs in the state. The City of Arvada, the seventh-largest city in Colorado, adopted a new curbside recycling program to increase convenient access to recycling for over 30,000 households. Mountain and rural areas, collectively considered Greater Colorado, deserve kudos for having already surpassed the 2021 recycling goals set by the state and producing less trash per person than the Front Range. Lastly, businesses and municipalities continue to expand composting programs to manage organic materials such as leftover food and yard debris. In fact, organics programs have grown fivefold since 2010.<sup>vii</sup>

At the state level, there were two significant accomplishments in 2020 that signify a concerted effort to invest in Colorado’s recycling economy. First, the state legislature adopted a comprehensive bill designed to bring more recycling businesses to the state, known as [SB20-055, Incentivize Development Recycling End Markets](#). Second, the [Front Range Waste Diversion \(FWRD\) Fund](#) awarded over \$2 million in its first round of grant funding to stimulate recycling and composting efforts in the Front Range.<sup>viii</sup> These complementary efforts reflect the two primary strategies needed to increase recycling in Colorado—the **need to increase access to convenient recycling and composting programs, particularly along the Front Range, and the need to attract more businesses in Colorado to make use of our recyclable and compostable materials.**

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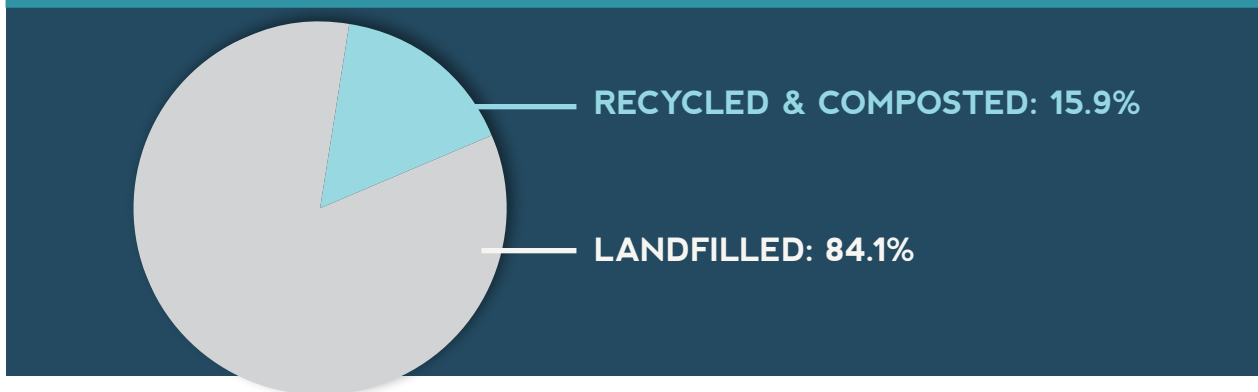
*Increasing recycling in Colorado is vital to reducing carbon pollution and boosting our economy by creating jobs and providing needed materials to companies manufacturing goods in our state.*

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Despite our low recycling rate, **Colorado’s recycling efforts continue to have a positive impact on our climate, saving over 1.9 million metric tons of greenhouse gas emissions per year, which is the equivalent of removing over 400,000 passenger cars from the road for one year.**<sup>ix</sup> This underscores the importance of improving recycling and composting programs statewide as some of the most cost-effective actions local communities can take to reduce carbon emissions.<sup>x</sup> One of the best ways to improve recycling is to provide curbside recycling to all residents. This report recognizes the 38 Colorado municipalities that are models for automatically providing curbside recycling to residents as part of their basic trash service.<sup>xi</sup>

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**FIGURE 1. COLORADO RECYCLED AND COMPOSTED LESS THAN 16% OF OUR MUNICIPAL WASTE IN 2019<sup>xii</sup>**



However, despite these noteworthy municipal and state-level gains, the fact remains that Colorado has not made significant progress toward its recycling goals over the past four years. In fact, over the past ten years our diversion efforts have only kept pace with population growth.<sup>xiii</sup> This means we are not making any real gains in our efforts to reduce our waste and recover more resources. This signals that **systemic policy changes are needed to drive Colorado toward a circular economy.**

Across the nation, states are turning toward Extended Producer Responsibility (EPR) policies to fundamentally revamp and reinvest in our recycling systems. EPR policies require producers to fund the recycling system, rather than local and state governments or ratepayers. For example, under an EPR model being developed in Washington state, residents would no longer be charged for curbside recycling service. The producers would finance the recycling system through fees on products and packaging or by internalizing the costs. Producers would also pay for upgrades to recycling infrastructure and statewide education programs on what is recyclable.<sup>xiv</sup> The goal of these EPR programs is to increase recycling rates, provide resources and coordination to modernize statewide recycling systems, and stimulate infrastructure investments and innovation.

The Colorado Department of Public Health and Environment (CDPHE) is currently conducting a literature review and initial evaluation of EPR policies for many different types of materials, and will release policy recommendations for Colorado in mid-2021. This report demonstrates why it is vital that Colorado state legislators act upon CDPHE’s recommendations and develop systemic solutions that accelerate our transition to a circular economy. **An EPR policy for packaging and paper products would provide the needed investment in infrastructure, services, and education to jump-start Colorado’s recycling economy and can be done without burdening local governments or residents.**<sup>xv</sup> In addition, this report looks at the initial impacts of COVID-19 on Colorado’s recycling programs, explores which cities and counties are leading and lagging at recycling, and recommends strategies to boost recycling based on proven solutions working here and across the U.S.

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**FIGURE 2: COLORADO’S GOLD-MEDAL WINNERS FOR BEST RECYCLING IN 2019<sup>xvi</sup>**

FRONT RANGE		
Best citywide recycling rate—residential and commercial	City of Boulder	51%
Best residential recycling rate—residential only	City of Loveland	60%
Best county-level recycling rate	Boulder County	37%
Best industrial recycling rate	City of Fort Collins	67%
GREATER COLORADO		
Best citywide recycling rate	Cities of Aspen and Durango	33%
Best county-level recycling rate	Pitkin County	38%

\* See Appendix for details on data collection terminology and how rates are calculated.

**FIGURE 3. COLORADO'S CURRENT DIVERSION RATE<sup>xvii</sup> COMPARED TO STATE GOALS<sup>xviii</sup>**

DIVERSION RATE & GOALS	2019 (actual)	2021	2026	2036
Front Range	16.2%	32%	39%	51%
Greater Colorado	12%	10%	13%	15%
Statewide	15.9%	28%	35%	45%

## RECYCLING IN COLORADO IS NOT SIGNIFICANTLY INCREASING

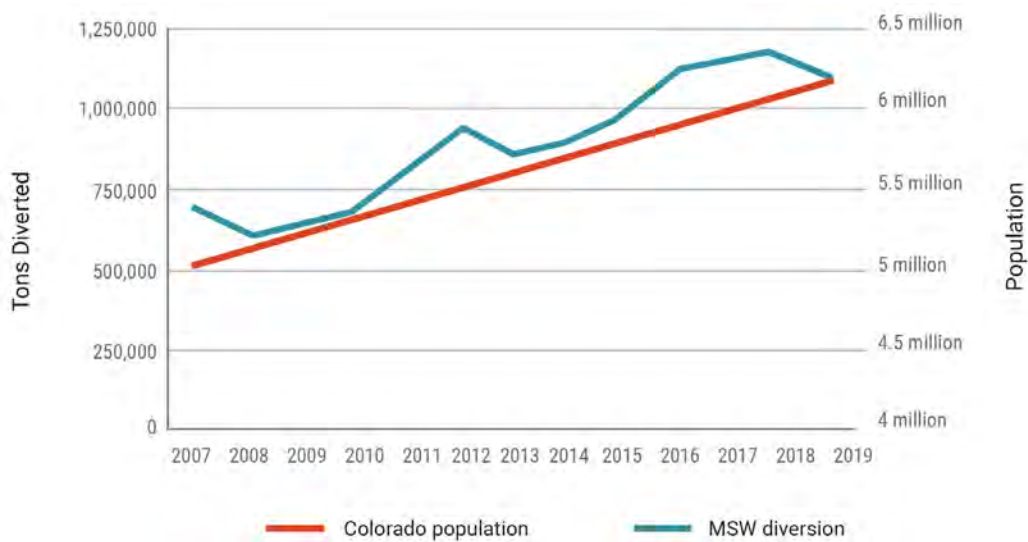
While Colorado's recycling rate dropped in 2019 and the state threw away more materials into landfills, in general the amount of materials recycled and composted in Colorado has been increasing since the state first started tracking our diversion efforts in 2007. However, while the total amount of materials collected for recycling and composting have increased over time, the rate of increase is nearly the same as our rate of population growth. This means we are not making any true gains in our efforts to reduce our waste and recover more resources, and are barely keeping up with our growing population. Most of these gains have come from new programs for organic materials, including food waste and yard debris. **The collection of organic materials such as yard debris and food scraps has grown fivefold from just 110,000 tons in 2010 to well over 500,000 tons in 2019.**<sup>xix</sup> While this growth in composting is certainly a bright spot, Colorado still sends over 84% of our materials to landfills each year and more than one-third of our waste stream is still compostable materials.<sup>xx</sup> Significant investments and new programs are needed to improve organics collection and processing.

Similarly, recycling rates at the community level are not showing significant improvements, with most communities showing little to no growth in residential recycling rates over the past four years of this report. While this is certainly disappointing, it is also not terribly surprising. The past several years have been particularly challenging for recycling around the state and the country. The cost of recycling was cited by multiple municipalities as the most significant challenge to their programs, as well as the lack of and uncertainty in markets for materials, high cost of transporting materials, and a lack of local and statewide infrastructure.<sup>xxi</sup> This strongly suggests that greater investments and systemic policy changes are needed to drive Colorado toward a circular economy.



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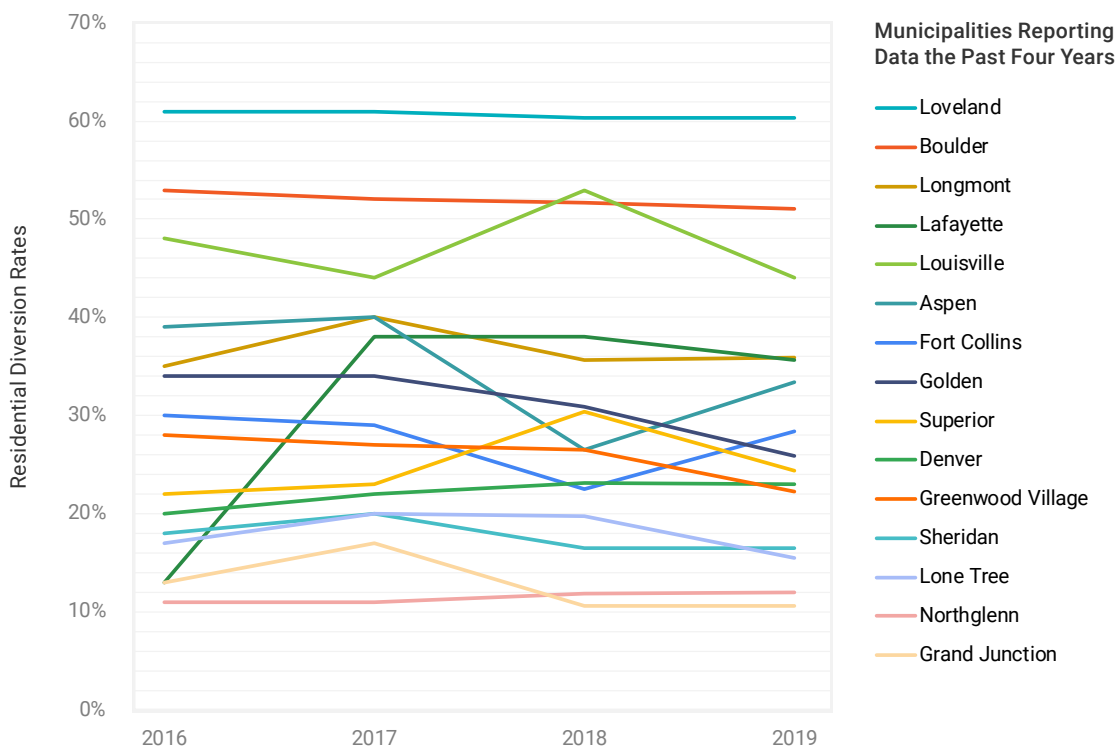
**FIGURE 4. RECYCLING AND COMPOSTING EFFORTS\* IN COLORADO BARELY KEPT PACE WITH POPULATION GROWTH<sup>xxii</sup>**



\*Municipal recycling and composting excluding scrap metal.

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**FIGURE 5. DIVERSION RATES SHOW NO SIGNIFICANT INCREASE OVER THE PAST FOUR YEARS<sup>xxiii</sup>**



## LACK OF ACCESS REMAINS PRIMARY BARRIER TO INCREASING RECYCLING & COMPOSTING

**Providing convenient curbside recycling to all residents is one of the most important and proven steps our cities can take to improve recycling in Colorado, especially on the Front Range.** The Front Range alone sent over 5.3 million tons of municipal waste to landfills in 2019, accounting for more than 87% of the waste in the state. Front Range residents are more wasteful than their rural counterparts, sending 6 pounds of trash to landfills per person per day compared to only 4.7 pounds of trash to landfills per person per day produced by residents in Greater Colorado.<sup>xxiv</sup>

**It's no surprise that Colorado lags behind on recycling when you consider six of our ten largest cities do not provide universal curbside recycling to all residents.**<sup>xxv</sup> While curbside recycling is available on a voluntary subscription basis in all of Colorado's major cities, it is not widely used by residents because people have to go out of their way to opt in and subscribe to recycling, and often have to pay more for recycling. On average, only 30–40% of residents have curbside recycling under subscription programs.<sup>xxvi</sup>

By contrast, in Colorado's leading cities, all residents have convenient curbside recycling, because recycling and trash service are bundled together. Residents automatically receive a recycling cart when they sign up for trash service, and both services are

included for one price. Municipalities can provide bundled services through three approaches: contracting directly with a waste and recycling hauler (e.g., Golden, Minturn); adopting a municipal ordinance to require that all haulers provide both services (e.g., Fort Collins, Vail); or providing both services directly through municipally run waste-management services (e.g., Denver, Durango).

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*Front Range residents throw away an extra 1.3 pounds of trash per person per day compared to rural residents. That's over 475 extra pounds per year!*

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### CLIMATE BENEFITS OF RECYCLING & COMPOSTING<sup>lxxv</sup>

Recycling already produces substantial environmental benefits for Colorado, even at our low rates. But there is so much more we can gain by recycling and composting more. In 2019, recycling and composting in Colorado helped to:

- Reduce greenhouse (GHG) emissions by over 1,920,000 MTCO<sub>2</sub>e, the equivalent to removing over 407,000 cars from the road annually.
- Save enough energy to power over 148,000 households for a year.

National studies show bundled trash and recycling is one of the most effective ways to get more people to participate in recycling and to collect more recyclable material per household.<sup>xxvii</sup> If Colorado is going to make measurable progress to increase recycling, we need all municipalities with curbside trash collection to provide every resident with a recycling cart next to their trash cart as part of one comprehensive, bundled service.

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**FIGURE 6. LESS THAN HALF OF COLORADO MUNICIPALITIES WITH 10,000 OR MORE RESIDENTS AUTOMATICALLY PROVIDE CURBSIDE RECYCLING FOR ALL HOUSEHOLDS.**<sup>\*xxviii</sup>



**All residents have access to curbside recycling automatically**

Denver  
 Fort Collins  
 Thornton  
 Arvada\*\*  
 Boulder  
 Longmont  
 Loveland  
 Commerce City  
 Northglenn  
 Lafayette  
 Evans  
 Louisville  
 Golden  
 Montrose  
 Durango  
 Greenwood Village  
 Frederick  
 Fruita  
 Steamboat Springs  
 Superior  
 Lone Tree



**Residents must subscribe to curbside recycling**

Colorado Springs  
 Aurora  
 Lakewood  
 Westminster  
 Pueblo  
 Centennial  
 Greeley  
 Broomfield  
 Castle Rock  
 Grand Junction  
 Parker  
 Littleton  
 Brighton  
 Englewood  
 Wheat Ridge  
 Windsor  
 Erie  
 Cañon City  
 Firestone  
 Johnstown  
 Federal Heights  
 Fort Morgan  
 Castle Pines  
 Wellington

*\* Defined as residential properties with less than eight units and not including homeowners' associations; multifamily properties are considered commercial accounts based on state law. Listed in descending order of population. At least 17 additional smaller Colorado communities and some unincorporated county areas also provide curbside recycling for all residents.*

*\*\* Program approved in 2020, to launch in July 2021.*

## LACK OF ACCESS TO RECYCLING & COMPOSTING IS AN EQUITY ISSUE

Providing convenient recycling to all residents is paramount to helping Colorado meet its recycling goals. Yet, too often, municipalities focus only on providing recycling to single-family homes. **Residents in multifamily properties such as apartments and condos have had historically limited access to recycling and composting services, leaving potentially hundreds of thousands of Coloradans, many of whom are renters, without convenient on-site recycling programs.**<sup>xxix</sup> Multifamily properties with 10+ units make up 20% of Colorado's housing stock in communities throughout the Front Range and mountain areas, and there are over 20 Colorado municipalities where more than 25% of residences are multifamily properties with 10+ units.<sup>xxx</sup> (Note: Colorado state law defines multifamily properties as commercial when the property has 8 or more units; census data considers multifamily properties commercial when it has 10 or more units.)



Providing recycling at apartments and condos does present additional challenges, such as space constraints that make it hard to find adequate space for recycling containers and problems with illegal dumping. Yet none of these challenges make it acceptable to provide second-rate services to residents at multifamily properties. Trash and recycling should be provided equitably, just like sewer, internet access, and any other utility—providing all of the community's residents with the same quality of services.

Multifamily recycling is just one example of how recycling and composting are intertwined with equity issues. Other examples include: the access different groups of people have to waste management and diversion services; the need for multi-cultural outreach and educational programs to engage all residents in recycling; the location of material recovery facilities, landfills, and other waste management infrastructure; and the disproportionate impacts of production facilities upon disadvantaged communities and/or communities of color.<sup>xxxi</sup> All of these topics with relation to Colorado's recycling system can and should take up whole reports on their own. More work needs to be done to quantify and eliminate these inequities.

## IMPACTS OF COVID-19 ON COLORADO PROGRAMS

Nearly two-thirds of the municipalities surveyed in this report shared challenges to their recycling or waste system in 2020 due to the COVID-19 pandemic. About a third of these jurisdictions had to temporarily close recycling or composting facilities for short periods ranging from a couple weeks to a few months. Aspen, Avon, Denver, Durango, Fort Collins, Montrose, Minturn, Pueblo, Ridgeway, and Montezuma County are among the municipalities that temporarily suspended programs or delayed the

implementation of sustainability and waste reduction initiatives due to shutdown-related budget reductions.<sup>xxxii</sup> These temporary closures have been commonplace across the country as well. Fortunately, Colorado has seen very few COVID-19 outbreaks among frontline recycling and waste collection workers who have remained on the job since the pandemic began.<sup>xxxiii</sup> As with other industries, the recycling and waste management industry has significantly increased cleaning procedures, social distancing, and PPE provision to protect workers.<sup>xxxiv</sup>

Nationwide, the recycling and waste industry has seen a significant increase of nearly 25% in the amount of residential waste and recycling produced as people moved away from the workplace and sheltered at home.<sup>xxxv</sup> Colorado communities reported similar increases in residential waste and recycling, and also saw an uptick in residential cardboard collection due to online shopping.<sup>xxxvi</sup>

Despite many continuing challenges, the pandemic has led to one important benefit for the recycling industry. As businesses shut down in the spring, the recycling/composting sector was declared an essential industry both by state and federal leaders. This represents a significant paradigm shift in the role of recycling and its public perception. While recycling was once considered just a niche environmental activity largely supported by volunteers, it has now been officially recognized as an essential part of the supply chain and the U.S. economy. In short, businesses depend on recycling to supply the feedstock to make new products, making it imperative to our economy. For example, recycled paper becomes toilet paper, recycled glass bottles become medical vials, and recycled plastics become PPE. This recognition of recycling for its economic importance further supports the need for Colorado to continue to expand its recycling programs in order to support and sustain local and U.S. manufacturing businesses.

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*Recycling is a win-win for Colorado's economy as well as our environment. Recycling, reusing, and remanufacturing already generate over \$8.7 billion in economic benefits in Colorado annually, even with our low recycling rate.<sup>xxxvii</sup>*

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## 2020 RECYCLING & COMPOSTING SUCCESS STORIES

### GOVERNOR PROCLAIMS “COLORADO RECYCLES WEEK”



In a strong show of support for how essential recycling is in our state and the need to accelerate progress to increase our state recycling rate, **Governor Jared Polis will proclaim the third week of November as Colorado Recycles Week in perpetuity.** This coincides with America Recycles Day on November 15. In his proclamation, the governor will highlight the importance of recycling to reduce our carbon emissions and the role of waste reduction, reuse, and repair as critical elements of building a circular economy here in Colorado.

## COLORADO INVESTS IN ATTRACTING MORE RECYCLING BUSINESSES

The Colorado legislature made a significant commitment to boosting recycling and creating local jobs under [Senate Bill 20-055, Incentivize Development Recycling End Markets](#). Championed by Sen. Kevin Priola, Sen. Tammy Story, Rep. Lisa Cutter, and Rep. Jeni Arndt, this bipartisan bill will set up our first statewide recycling end-market development center to assist businesses that process recyclable materials and make them into new products by providing market analyses, identifying financial incentives, and advocating for pro-recycling policies at the state and local level. This will strengthen our local markets for recycled materials, increasing their value, creating consistent and more resilient markets, and decreasing the cost for municipalities to ship the materials. The budget, location, and staffing of the center will be determined by CDPHE in the coming year.

### WHAT IS A RECYCLING END MARKET?

End markets are manufacturers that use recycled materials to make new products. End markets can include paper mills, metal smelters, glass factories, and plastics fabrication plants. Products and packaging are only recyclable when there is an end market that buys them to make new products. End markets are the biggest determining factor in which materials are accepted for recycling. Without accessible end markets, products are simply not recyclable. Examples of end markets here in Colorado include:

- EVRAZ Rocky Mountain Steel in Pueblo uses scrap metal to make new steel products.
- Rocky Mountain Bottling Company in Wheat Ridge and O-I (formerly known as Owens-Illinois) in Windsor use recycled glass to make new beer bottles.
- Applegate Insulation in Penrose uses recycled paper to make home insulation, pet bedding, and seed mulch/erosion-control products.
- Spring Back Colorado in Commerce City uses recycled mattresses to make Greener Pup Dog Beds.
- A1 Organics in Keenesburg (and other locations) converts food scraps, yard debris and other organic materials into high-quality soil amendments.

Over 95% of Colorado's waste could be recycled or composted, which could serve as the feedstock for businesses in the state to make new products or could contribute to building stronger, more resilient soils that grow healthier food and store carbon away from our atmosphere.<sup>xxxviii</sup>

Senate Bill 20-055 also advances several other important elements of recycling. The bill directs CDPHE to conduct a study on how product manufacturers might financially support recycling programs under Extended Producer Responsibility (EPR) regulations. It also authorizes the provision of tax rebates to eligible recycling businesses for locally assessed personal property taxes. Finally, the bill directs CDPHE to conduct a statewide outreach campaign to educate about recycling.<sup>xxxix</sup>

## MILLIONS OF DOLLARS NOW AVAILABLE TO SUPPORT RECYCLING IN THE FRONT RANGE

The Front Range generates over 85% of the state's waste, so improving recycling from Larimer County to Pueblo County is paramount to improving Colorado's statewide recycling. That's why in 2019, the legislature created the Front Range Waste Diversion (FRWD) Enterprise grant program, which increased landfill tipping fees in the Front Range in order to provide roughly \$100 million in grants over the next ten years to help cities, haulers, schools, and businesses implement new waste diversion programs. In their first grant cycle in 2020, the board awarded over \$2 million to nine projects, including funding for projects in three cities: Arvada, Broomfield and Erie. Applications for the second round of funding will be released in early 2021.<sup>xi</sup>

## ARVADA PROVIDES CONVENIENT CURBSIDE RECYCLING TO OVER 30,000 HOUSEHOLDS



The City of Arvada became the largest city in Colorado to adopt a city-waste contract that will provide all residents with convenient curbside recycling service alongside trash collection. Under Arvada's new city-wide contract, which starts in July 2021, over 30,000 households will have biweekly curbside recycling collection and weekly volume-based trash service. Most residents are expected to save money or receive more services for the same rates they are currently paying.<sup>xii</sup>

Residents will also be able to compost their leaves, branches, and other yard debris at spring and fall collection events. The new program is projected to greatly reduce the number of waste hauling trucks on city streets, which will reduce wear and tear on roads and reduce noise and air pollution.<sup>xiii</sup> With greater access to more convenient recycling services, Arvada hopes to reach a recycling rate of 25 percent or more, similar to other communities with universal waste and recycling programs.

## BUSINESSES, MUNICIPALITIES, AND COUNTIES EXPAND COMPOSTING IN GREATER COLORADO

Private businesses across the mountain and rural communities in Colorado are launching or expanding their composting facilities and collection programs to collect more organic waste like yard debris and food scraps. This will help increase our diversion efforts as well as bolster local economies. Highlights include: Thunder Mountain Organics, which is constructing a new composting facility outside Olathe;<sup>xliii</sup>

Table to Farm Compost received two grants to expand their facility in Durango;<sup>xliv</sup> and Western State Colorado University in Gunnison also received state funding to expand its infrastructure to compost food scraps on campus.<sup>xlv</sup> In addition, a number of rural municipalities are expanding compost collection services: Avon is collecting compost at the town hall, recreation center, and police station; Aspen expanded its biannual yard waste collection to year-round service; Minturn added a compost drop-off site for residents; and Ophir will launch a community-wide composting project.<sup>xlvi</sup> Montezuma, Routt, and San Miguel Counties also reported expansion of composting.<sup>xlvii</sup>

## CITIES FOCUS ON REDUCING PLASTIC POLLUTION

There are now 16 Colorado cities with a fee or ban on disposable bags, the most of any non-coastal state. Denver will be the largest Colorado city to limit single-use disposable checkout bags. Their 10-cent fee starts July 2021 and will apply to all paper and plastic check-out bags at grocery stores, gas stations, and other retailers.<sup>xlviii</sup> Voters in the City of Louisville approved a 25-cent fee on single-use plastic and paper checkout bags from all retailers, set to take effect in 2022.<sup>xlix</sup> Municipalities are looking to reduce

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*The best way to solve Colorado's waste problem, and substantially reduce our carbon footprint, is to stop producing so much stuff, and to focus more on reusing what we have. Then, for the stuff we do need, it needs to be both recyclable and recycled.*

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single-use disposable plastic take-out containers as well, with both Golden and City of Boulder offering rebates for restaurants to help offset the costs of purchasing recyclable or compostable take-out containers.<sup>l</sup>





# RECYCLING AND COMPOSTING BY THE NUMBERS

In our fourth year of this report and in our most comprehensive survey to date, we reached out to 140+ municipalities, all 64 counties and several businesses and organizations to ask about their local recycling rates, and program highlights and challenges for 2019–2020. The recycling and composting data summarized below is from 2019 and reflects rates prior to COVID-19.

## COLORADO'S GOLD-MEDAL LEADERS FOR RECYCLING & COMPOSTING

While Colorado may lag behind the nation at the statewide level, several communities are recognized leaders in recycling and composting. We honor the following cities as the top recycling and composting programs in Colorado.

**The City of Boulder leads the state with a 51% citywide recycling rate for households and businesses.** This is in large part because Boulder has the highest recycling and composting rate among businesses because of the city's Universal Zero Waste Ordinance that requires all businesses, apartments, and homes to have recycling and composting collection service.<sup>ii</sup>

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FIGURE 7. COLORADO'S GOLD-MEDAL WINNERS FOR RECYCLING IN 2019

FRONT RANGE		
Best citywide recycling rate—residential and commercial	City of Boulder	51%
Best residential recycling rate—residential only	City of Loveland	60%
Best county-level recycling rate	Boulder County	37%
Best industrial recycling rate	City of Fort Collins	67%
GREATER COLORADO		
Best citywide recycling rate	Cities of Aspen and Durango	33%
Best county-level recycling rate	Pitkin County	38%

\* See Appendix for details on data collection terminology and how rates are calculated.

**FIGURE 8. TOP 10 FRONT RANGE MUNICIPALITIES FOR RESIDENTIAL RECYCLING<sup>lii</sup>**

CITY	DIVERSION RATE
Loveland	60%
Boulder	51%
Louisville	44%
Lafayette	36%
Longmont	36%
Fort Collins	28%
Golden	26%
Denver (City/County)	24%
Superior	24%
Greenwood Village	22%

**For the fourth year in a row, the City of Loveland leads Colorado cities with a 60% residential recycling rate.<sup>liii</sup>** The city's program provides convenient curbside recycling to all single-family households and multifamily properties with seven or fewer units, the most common type of recycling program among Colorado municipalities (see Figure 8). Loveland's program has been nationally recognized as a model for its volume-based pricing for trash that creates a strong financial incentive for households to recycle more and produce less waste.<sup>liv</sup>

**Fort Collins is the winner for having the highest industrial recycling rate in the state at 67%,** which includes materials such as scrap metal, concrete, asphalt, and soil. The city is also the best model for comprehensive data tracking for waste and recycling and is the only city to fully report on all residential, commercial, and industrial waste and recycling in the city.<sup>lv</sup>

**In Greater Colorado, there is a two-way tie for the best recycling program with both Durango and Aspen reporting 33% diversion rates.<sup>lvi</sup>** Each city provides convenient curbside recycling to all residents and offers several convenient drop-off programs for materials such as electronics and yard waste.

## COLORADO'S RURAL AREAS EXCEED STATEWIDE RECYCLING GOAL DESPITE CHALLENGES

Greater Colorado deserves kudos for already exceeding its 2021 recycling target set by the state, and for producing less waste per capita than Front Range residents. Colorado's rural areas are an integral part of achieving our state recycling goals and more work is needed to help them overcome the additional barriers they face in improving recycling and composting efforts, such as:

- Higher transportation costs because of longer distances to end markets
- Lower population densities, which make it harder to provide curbside collection programs so there is higher reliance on drop-off centers for recycling
- Lower material generation, which requires more storage space or regional cooperation to gather a sizeable load for shipping
- Lower tax base to fund infrastructure investments

## COLORADO'S GOLD AND SILVER MEDALISTS FOR RECYCLING

Residents in most Colorado cities have to go out of their way to opt in to a curbside recycling program. This means they have to reach out to a trash hauler to find one that offers recycling and then typically they have to pay more for recycling service. By contrast, these 39 model cities and towns offer bundled recycling and trash service so you automatically get a recycling cart when you sign up for trash service, and both services are included for one price. This type of program can be done through city-run trucks, through contracts with haulers or through hauler licensing programs. National studies show bundling is one of the most effective ways to get more people to participate in recycling and to collect more recyclable material per household.<sup>lvii</sup>

Providing convenient curbside recycling to all residents is one of the most important and proven steps our cities can take to improve recycling in Colorado, especially on the Front Range. We hope these cities serve as inspiration to their peer communities to offer these valuable services in 2020, and as inspiration at the state level to provide more financial and technical support to expand curbside recycling programs.

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**FIGURE 9. COLORADO'S GOLD AND SILVER MEDAL WINNERS: CITIES AND TOWNS THAT PROVIDE CURBSIDE RECYCLING AUTOMATICALLY\* FOR ALL RESIDENTS<sup>lviii</sup>**

### FRONT RANGE

City of Boulder	Edgewater	Greenwood Village	Loveland
Bow Mar	Evans	Hudson	Morrison
Commerce City	Fort Collins	Lafayette	Northglenn
Dacono	Foxfield	Lone Tree	Sheridan
Denver (City/County)	Frederick	Longmont	Superior
Eaton	Golden	Louisville	Thornton

### GREATER COLORADO

Aspen	Fruita	Mountain Village	Steamboat Springs
Carbondale	Hayden	New Castle	Telluride
Durango	Minturn	Rifle	Vail
Eagle	Montrose	Silt	

*\* All households receiving curbside trash collection are automatically provided with curbside recycling as one bundled service package. Does not include multifamily properties with eight or more units, or HOAs.*

## RECYCLING RATES AT THE COUNTY LEVEL

Six Colorado counties, including Boulder, Broomfield, Denver, Eagle, Pitkin, and Summit, earned gold medals for collecting recycling data at the county level every year. Another thirty-six counties earned silver medals for having a waste composition study, giving them a baseline report on how to improve their recycling rates. CDPHE and its [Recycling Resources Economic Opportunity \(RREO\) grant](#) also deserve a medal for funding many of these rural and regional studies. Collecting data at the county or regional level helps to measure progress and promotes better coordination of waste diversion programs, which can improve the cost-effectiveness of programs, particularly in rural areas.

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FIGURE 10. COLORADO'S GOLD-MEDAL WINNERS AT THE COUNTY LEVEL FOR ANNUAL DATA TRACKING<sup>ix</sup>

COUNTY	DIVERSION RATE
Pitkin	38%
Boulder	37%
Eagle	28%
Denver (also reported under cities)	24%
Summit	19%
Broomfield (also reported under cities)	12%

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FIGURE 11. COLORADO'S SILVER-MEDAL WINNERS AT THE COUNTY LEVEL FOR CONDUCTING WASTE COMPOSITION STUDIES<sup>ix</sup>

Alamosa	Crowley	Grand	Mesa	Pueblo
Archuleta	Custer	Gunnison	Minera	Rio Blanco
Baca	Delta	Huerfano	Moffat	Rio Grande
Bent	Dolores	La Plata	Montezuma	Routt
Chaffee	El Paso	Lake	Montrose	Saguache
Conejos	Fremont	Larimer	Otero	San Juan
Costilla	Garfield	Las Animas	Ouray	San Miguel Teller

## RECOMMENDATIONS

These local and state-level action steps are critical to helping Colorado achieve its recycling goals while creating jobs, reducing climate pollution, and bolstering our local economies:

### STATE LEVEL RECOMMENDATIONS

#### **1. Transition to a recycling system funded by the product and packaging industries through an EPR policy for packaging and paper products (PPP).**

States across the U.S. are turning toward Extended Producer Responsibility (EPR) policies as a proven approach to increase recycling without burdening households or local governments. EPR programs for packaging and paper products are common in the E.U. and Canada. Many U.S. states, including California, Indiana, Massachusetts, Maine, New York, Oregon, Vermont, and Washington are pursuing legislation or researching EPR for PPP policies, and federal legislation was introduced in February 2020.<sup>lxi</sup> Product manufacturers have also shown a growing willingness to pay for recycling infrastructure in order to meet their recycling and sustainability goals.<sup>lxii</sup>

This groundbreaking shift toward a producer-funded recycling system could help Colorado to increase its recycling rates, provide more residents with greater access to recycling services, invest in needed recycling infrastructure, and reduce costs to households and local governments.<sup>lxiii</sup> Under the EPR policy being developed in Washington state, producers will be responsible to:

- Fund and coordinate residential recycling program
- Achieve recycling rates for each type of packaging (plastic, glass, etc.)
- Develop a standardized list of recyclable materials for the entire state
- Use recycled materials in new products to increase demand for recycled materials
- Ensure all single- and multi-family residents receive convenient, equitable access to recycling.

EPR systems can also be paired with other policies, including a bottle deposit system to create a financial incentive for residents to recycle beverage containers, and requirements for packaging to include a minimum amount of recycled content to drive market demand for more recycled markets.



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*Colorado's EPR program for paint, in place since 2015, has successfully increased paint recycling rates, provided greater access to collection sites, reduced costs to cities and counties which previously paid for this service, and kept hazardous materials out of landfills.<sup>lxiv</sup>*

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CDPHE is currently conducting a literature review on EPR and will work with stakeholders to develop policy recommendations for Colorado in 2021. Stakeholders and legislators need to prioritize EPR policy for packaging and paper products in the coming months and years as part of a systemic shift to greatly accelerate our efforts to recycle more and reduce our GHG emissions.

## **2. Accelerate investments in recycling end markets.**

Colorado needs more in-state businesses that can use our recycled materials to make new products. A Recycling End Market Development Center, as authorized in spring 2020 by new state legislation, will provide the needed leadership to coordinate a comprehensive, proactive, cross-agency effort, and is a proven strategy that has been successful for other states. We urge CDPHE and stakeholders to move quickly to launch this effort.

## **3. Develop a statewide organics management plan to reduce waste and climate pollution.**

Over one-third of Colorado's trash is organic material such as food scraps and yard waste that could be composted.<sup>lxv</sup> A statewide organics management plan, as detailed in HB20-1047, is needed to prioritize the compost infrastructure needed to capture our organic waste, and the incentives and regulations to utilize this important soil amendment. Soils enriched by compost remove carbon dioxide from the atmosphere and increase soils' water-holding capacity, making Colorado's landscapes more resilient to drought. Composting is beneficial for both rural and urban economies as well, providing twice as many jobs per ton processed as landfills.<sup>lxvi</sup>

## **4. Repeal preemption law to reduce plastic pollution.**

Eight U.S. states, over 300 U.S. cities, and entire countries such as Taiwan, Canada, and all of the European Union have policies in place to ban or restrict single-use plastic packaging such as plastic bags, foam take-out containers and straws.<sup>lxvii</sup> Yet here in Colorado, local cities are prohibited from implementing product bans under state law.<sup>lxviii</sup> Six counties and twenty-two municipalities have collectively called upon the state to remove this restriction, and we support these efforts to repeal the plastics preemption to allow these communities to focus on waste reduction as a priority strategy to address plastic pollution.<sup>lxix</sup>

## **5. Lead by example at state agencies.**

In order to attract new remanufacturing businesses to Colorado to support recycling, Colorado must prove that we can supply a steady stream of high-quality recyclable materials to ensure these businesses will be successful. This means we have to do a much better job at recycling. The state should show leadership by prioritizing three proven approaches:

- Provide recycling and composting (where available) at all state facilities.
- Purchase compost for state construction and transportation projects to be used for soil remediation, drainage and erosion control, revegetation, and other purposes.
- Recycle at least 50% of construction debris in all state-sponsored building projects.

## MUNICIPAL RECOMMENDATIONS

**1. Provide bundled curbside recycling automatically to all residents.** Every resident that receives curbside trash collection should also have a recycling cart provided as part of one service package, including homeowner associations (HOAs) and larger rural areas. Recycling service should be bundled together with trash service so they are delivered together for one price so residents do not have to subscribe to or pay for recycling separately. Providing parallel access to curbside recycling is one of the most important steps toward increasing recycling across Colorado, and particularly along the Front Range.

**2. Increase recycling services for businesses and multifamily properties.** Apartments and businesses throw away roughly twice as much waste as single-family residents and often lack adequate recycling services.<sup>lxx</sup> The City of Boulder increased its citywide diversion rate by more than 10% since 2015 when the city adopted its Universal Zero Waste Ordinance and required recycling and composting services for all businesses and multifamily properties.<sup>lxxi</sup> More work is needed across the state to expand recycling and composting services to these important and underserved populations. As a starting point, local municipalities should revise their building codes that require new multiunit and commercial buildings to design adequate space for recycling and composting containers as the lack of space for recycling containers is one of the biggest problems for providing services to these sectors.

**3. Develop composting infrastructure and expand services.** Colorado needs to invest in composting infrastructure and develop more convenient drop-off centers and curbside collections to turn these materials into nutrient-rich soil amendments. Communities can start with seasonal spring debris or fall leaf collections as they build toward curbside programs. The City of Lafayette was able to triple its residential diversion rate by implementing a curbside composting program for all residents.<sup>lxxii</sup>

**4. Require construction and demolition (C&D) debris recycling.** Colorado sent over 3.5 million tons of industrial waste to landfills in 2019, much of which was construction debris.<sup>lxxiii</sup> The majority of these materials can be readily reused or recycled, such as concrete, asphalt, dirt, scrap metal, cardboard, and clean lumber. Unfortunately, Colorado severely lacks the infrastructure and end markets to collect and recycle these materials, and there are limited requirements or incentives for contractors to divert these materials. At the state level, Colorado needs to prioritize the development of end markets and businesses that recycle and reuse C&D debris. At the local level, Colorado communities need to adopt policies that encourage or require C&D recycling. Fort Collins, City of Boulder, Pitkin County, and Nederland are examples of communities with model C&D recycling policies.

**5. Collect data.** Municipalities and counties need consistent data on how much of the local waste stream is recycled, composted, and landfilled, yet access to data is very limited. Of the 140+ cities and towns we contacted, less than 40 were able to report a recycling rate. We recommend cities use the free data tools available through the Municipal Measurement Program (MMP). Using this national platform helps to ensure that recycling data is reported consistently between communities and across the U.S.<sup>lxxiv</sup>

## IMPORTANCE OF DATA COLLECTION

Good data collection is key to improving recycling locally and across Colorado. Unfortunately, many Colorado communities do not have data on their waste and recycling rates. This is often due to having multiple haulers operating in their area, many of which do not provide consistent, easily interpreted data on waste and recycling tonnage. Measuring and tracking waste, recycling, and compost rates empowers municipalities to:

- Set goals and measure the effectiveness of policies and programming to improve diversion rates.
- Identify the best opportunities to start new or expand existing programs and services.
- Discover new opportunities to increase recycling at businesses and apartment complexes.
- Compare progress with peer cities to improve performance.
- Demonstrate recycling benefits using tools such as the EPA Waste Reduction Model (WARM) to convert the amount of material recycled into larger benefits, such as reductions in greenhouse gas (GHG) emissions, new jobs created, and other economic and environmental benefits.

Smaller communities can benefit from regional data collection at the county or watershed level, and from partnerships with nonprofit organizations. Good partnership models for regional data collection include High Country Conservation Center, EcoAction Partners, and Walking Mountains Science Center.





## CONCLUSION

The year 2019 will not be remembered as a successful year for Colorado's recycling. As a state, we recycled less and sent more materials to landfills than in 2018. On the local level, while many cities and counties launched new services, most simply tried to maintain existing programs. However, if we seize upon these recommendations and the momentum we are building with new state policies, it may be remembered in hindsight as a tipping point. Over the past few years, escalating concerns about our climate crisis, plastic pollution in the ocean and the global crash of recycling markets have led to unprecedented momentum for new policy and infrastructure investments in the U.S. recycling system. Colorado is part of this historic change, with significant new policies to fund recycling programs and attract new businesses to use our recycled materials. The past four years of this report have shown that systemic changes are needed to truly accelerate a circular economy in Colorado. New EPR policies that transition to a producer-funded recycling system are the foundation of that systemic change. Simultaneously, as Colorado strengthens its commitment to reduce our carbon emissions, recycling can play a critical role in helping to stabilize our climate as one of the fastest and most cost-effective local solutions to reduce carbon pollution.

**Find out more about how you can help move Colorado forward at:**

[www.ecocycle.org/take-action/zerowastecolorado](http://www.ecocycle.org/take-action/zerowastecolorado)



# APPENDIX

## DATA COLLECTION TERMS

The term “recycling rate” means different things both across Colorado and across the country, which makes it hard to compare between cities and states. This report distinguishes the recycling rate based on the different parts of the community, including:

- Citywide recycling rate—just households and businesses, also known as municipal solid waste (MSW)
- Residential recycling rate—single-family homes and apartments up to seven units (may not include homeowner associations, also known as HOAs)
- Industrial recycling rate—includes materials generated through agricultural activities, construction and demolition, energy production and other industrial activities.

## HOW TO CALCULATE RECYCLING RATE

The diversion rate, commonly called the recycling rate, is the amount of material collected for recycling and composting divided by the total amount of discards generated, i.e.

$$\frac{(\text{recycling} + \text{composting})}{(\text{recycling} + \text{composting} + \text{trash})} = \text{diversion rate}$$

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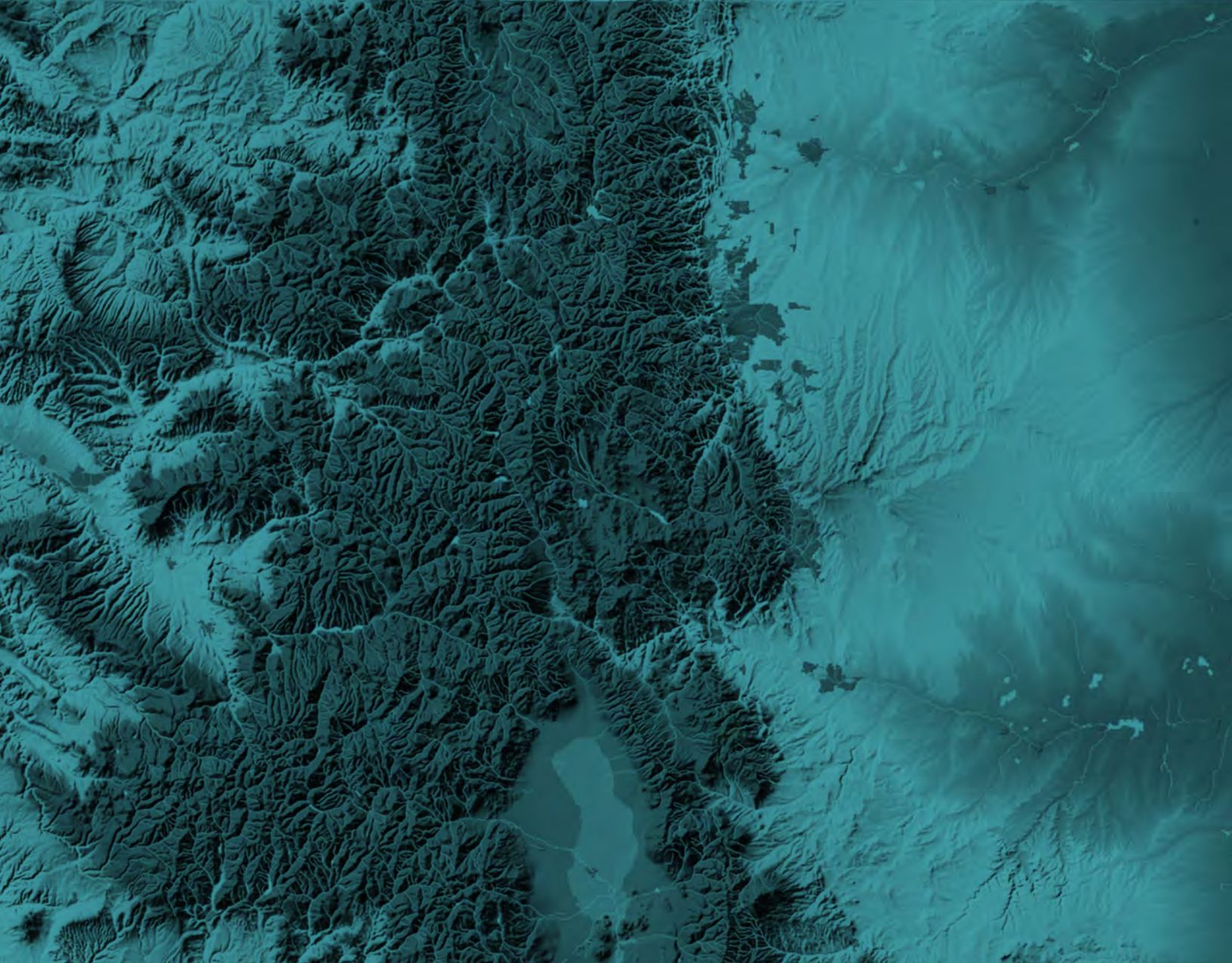
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