

FRONT RANGE WASTE DIVERSION BASELINE ASSESSMENT



DECEMBER 2021

Prepared by



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EXECUTIVE SUMMARY

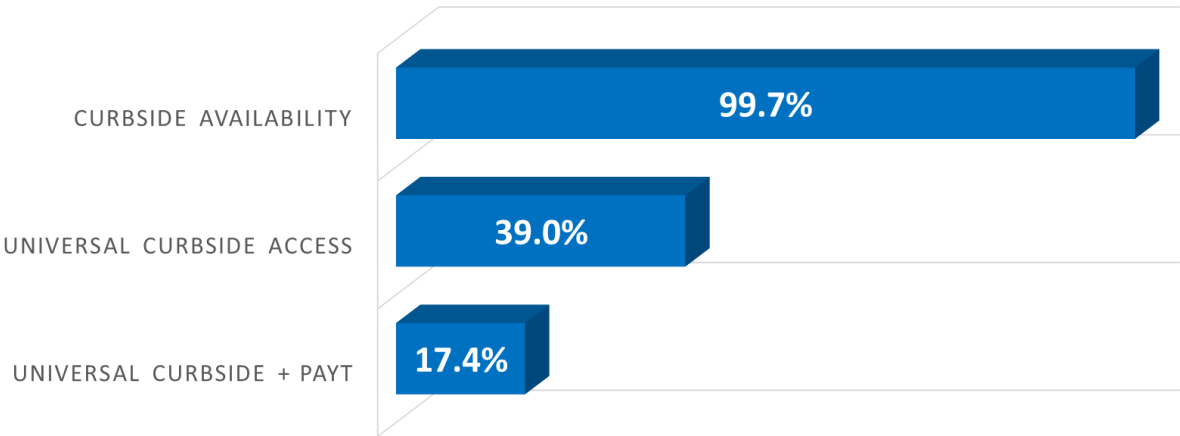
On behalf of the FRWD board, Eco-Cycle developed this baseline assessment of recycling, composting, and waste diversion programs, services, and challenges along the Front Range. Over the three month project, Eco-Cycle contacted 92 municipalities in the Front Range and held in-depth phone interviews with 75 cities and towns. Eleven municipalities did not respond after three attempts to contact, including Boone, Bow Mar, Cripple Creek, Elizabeth, Firestone, Hudson, Kiowa, La Salle, Lochbuie, Raymer and Woodland Park. Interviews were also conducted with all 13 Front Range counties. Eco-Cycle also researched all municipal and county websites on recycling and composting services to complete this assessment.

Below are the key findings from this assessment, followed by a more in depth analysis and discussion of the data collected.

KEY FINDINGS

CURBSIDE RECYCLING IS WIDELY AVAILABLE BUT ONLY 17% OF RESIDENTS HAVE BEST IN CLASS UNIVERSAL CURBSIDE RECYCLING WITH PAYT

Curbside recycling is widely available throughout the Front Range to over 99% of residents living within cities and towns. However, less than half of municipal residents receive universal curbside recycling service under which recycling is automatically provided as part of their trash services. The other **half of Front Range residents only have subscription-based, opt-in programs where residents have to subscribe and commonly pay more for recycling.** Subscription rates in opt-in programs average only 30% nationwide, which means it is likely that most residents in the opt-in programs in Colorado do not participate in curbside recycling.



ORGANIZED RECYCLING SERVICES ARE UNCOMMON IN COLORADO COMPARED TO MOST OF US COMMUNITIES.

Only 29 cities and towns along the Front Range have organized curbside recycling programs, with five municipally-run programs and 24 communities with contracts for curbside recycling.

This represents 45% of Front Range residents. By contrast, it is estimated over 70% of residents nationwide have organized waste hauling through either a contract, franchise or a municipally run program. This illustrates how starkly different Colorado’s recycling system is compared to the rest of the nation.

VOLUME-BASED PRICING FOR TRASH SERVICE IS LIMITED.

There are only 11 Front Range municipalities with volume-based pricing for trash. This represents just 17% of the Front Range population. Only half of the municipalities that provide bundled curbside recycling services also include PAYT pricing. In the majority of Front Range communities (46 municipalities), trash service is provided by private haulers through open market systems with no municipal involvement and their rate structure is unknown.

COMPOSTING AND ORGANICS PROGRAMS ARE VERY LIMITED BUT GROWING. Only 10 communities have curbside composting programs and only four of these programs are universally provided to all single-family homes. Over one-third of communities have drop-off sites for organics, and there is significant interest from municipalities in developing yard debris drop-off sites. There is also a growing number of private service providers for curbside food scrap collection. These private, opt-in programs are available in 20 communities, although they only serve fewer than 1% of households in these municipalities.

WASTE DIVERSION PLANNING AND GOALS ARE VERY LIMITED. Only 19 communities have waste diversion plans or elements of waste management in similar plans; this is increasing as communities add more sustainability and climate-related staff, but still remains underdeveloped. Only 12 communities have set quantitative waste diversion goals.

MULTI-FAMILY RESIDENTS LACK EQUITABLE SERVICES.

Multifamily residents comprise about 15% of the Front Range population but very little is known about their recycling and composting services. Only Boulder and Fort Collins ensure onsite recycling at multifamily complexes (MFCs); Boulder also requires onsite composting. Only a small handful of municipalities offer some onsite recycling services or education for MFCs. National data suggests only 30% of MFCs have onsite services.

KEY FINDINGS ON ACCESS TO RECYCLING & COMPOSTING SERVICES FOR MUNICIPAL RESIDENTS

	Number of municipalities	Percentage of municipalities	Total population served	Percentage of total population served
Universal recycling	29	32%	1,727,423	45%
Opt-in curbside recycling	49	53%	2,065,972	54%

No curbside recycling	13	14%	11,300	0.3%
Volume Based Pricing (PAYT)	11	12%	662,504	17%
Required MFC recycling services	2	2%	64,271*	2% (8% MFC population)
Universal curbside composting	4	4%	177,943	4%
Subscription, opt-in curbside composting**	26	28%	2,794,169	73%
No curbside composting available	59	64%	826,142	22%
Organics DOC	32	35%	2,485,717	65%
Waste diversion plan or similar document	19	24%	1,349,555	36%

* Estimate based on populations of Boulder and Fort Collins times the percentage of housing units that are multifamily.

** Opt-in recycling figures include both opt-in programs through municipal haulers and contracts (6 municipalities) and through open-market subscription services (available in 20 municipalities).

COMMUNITIES WERE UNFAMILIAR WITH THE FRWD GRANT. The majority of the municipalities interviewed were not familiar with the FRWD grant and were grateful for the information. Some communities expressed strong interest in applying for the January grant round. However, some municipalities also expressed concerns and misconceptions about their ability to access FRWD funds because of the minimum funding level and lack of staff capacity.

FUNDING, REGIONAL COOPERATION, AND PROJECT MANAGEMENT WERE MOST FREQUENTLY REQUESTED ASSISTANCE.

Municipalities most often mentioned funding as their biggest need. There was also a strong need for project management to both write grants, facilitate the grant awards, and manage new projects. Communities were also strongly supportive of an independent entity to facilitate regional collaboration. (This was an open-ended question and responses were grouped into similar categories.)

Request	Municipal responses	Percentage of respondents
Funding Needed	36	39%
Facilitate regional cooperation	28	30%
Project management needed	27	29%
Recycling Drop-off Center	22	24%
Education / Outreach	21	23%

COMMUNITIES WANT MORE INFORMATION, COLLABORATION AND RESOURCES.

Communities were excited to talk to someone about their programs and to hear what other communities are doing. They cited a lack of information about funding opportunities for recycling and composting, and a lack of information on the types of programs and services that other communities are doing. Municipalities strongly expressed interest in being informed about what other communities are working on or have accomplished, and in more regional collaboration with their peers.

CITIES AND TOWNS ARE FAR MORE ENGAGED IN WASTE DIVERSION INITIATIVES THAN COUNTIES.

The majority of the programs and services were based at the municipal level; counties had far less information to provide. Most counties provided drop-off sites, most commonly for traditional recyclables or household hazardous waste (HHW).

RECOMMENDATIONS

Based on the data collected and extensive phone calls with municipalities and counties during this assessment, Eco-Cycle recommends the following strategies to significantly accelerate waste diversion along the Front Range:

- 1. Support transition from opt-in curbside recycling to universal in biggest cities.**
Curbside recycling is widely accessible along the Front Range but subscription to these services is limited. Efforts should be focused on transitioning cities and towns from opt-in programs to universal, PAYT programs. Focusing on the largest communities offers the best opportunity to rapidly increase diversion. Proactive engagement of these communities is needed for this and other strategies.
- 2. Focus MFC programs on cities with more than 20% MFC populations.**
MFCs are vastly underserved in recycling access but providing effective services and ongoing education can be challenging. Eco-Cycle recommends a targeted strategy to focus on MFCs in the largest cities and creating a collaborative program to share resources.

3. Support private composting providers to scale up services.

There is a burgeoning network of small composting providers offering services along the Front Range. There is an opportunity to proactively scale up these services through partnerships with HOAs, municipalities and MFCs that bring services to a greater number of households and help reduce costs per household.

4. Build out yard waste DOC infrastructure.

Many communities expressed interest in yard waste drop-off programs and this is a substantial opportunity to increase diversion rates. This can include targeted outreach to communities to transition from seasonal to year-round programs, to move from collection events to full-time sites, and to expand from partial yard debris collection to full programs.

5. Proactively engage cities and towns regularly.

Cities, towns and counties are eager for more information, services and collaboration to advance waste diversion. Communities need frequent, proactive engagement to prioritize waste diversion initiatives with elected officials.

6. Create community cohorts around select strategies.

Cities and towns are interested in collaborating with their peers on new initiatives and strongly influenced by the communities around them. Eco-Cycle recommends creating a network of cities and towns interested in particular action steps and then building out an action plan to drive communities toward applying for funding and adopting programs. This can include informational sessions, policy models, case studies on similar communities, technical assistance, and help with grant funding.

FEEDBACK PROVIDED ABOUT FRWD ASSISTANCE

Phone interviewees were asked about their knowledge of the FRWD program and if they had suggestions for the types of technical assistance that would be helpful to their community. Eco-Cycle grouped the answers into similar response categories detailed below.

COMMUNITIES ARE UNFAMILIAR WITH THE FRWD GRANT

The majority of municipalities interviewed not familiar with the FRWD grant and were both grateful for the information and excited about the funding opportunity. The phone interview approach was a successful interchange of information and made communities feel valued for their unique feedback. This approach also sparked greater interest for communities to stay engaged and prompted some communities to prepare for the January grant round.

FUNDING, REGIONAL COOPERATION, AND PROJECT MANAGEMENT ARE MOST REQUESTED TYPES OF ASSISTANCE.

Phone interviewees were asked for their suggestions on where/how FRWD funds and technical assistance could be used within their community. Nearly 90% of those interviewed requested funds and/or technical support from FRWD. Eco-Cycle categorized these responses into common themes and then ranked the responses to identify key trends. Funding was the most commonly requested assistance from 39% of interviewed communities. Many communities also spoke about staffing, including the challenges with developing and submitting grant applications for FRWD funding, and the lack of staff to oversee and manage both the project and the grant administration if awarded funding.

The following chart shows the top 10 most common responses. Please see the appendix for a full list of requested services.

Type of Assistance	Municipal responses	Percentage of respondents
Funding Needed	36	39%
Facilitate regional cooperation	28	30%
Project management needed	27	29%
Recycling Drop-off Center	22	24%
Education / Outreach	21	23%
Staffing needed	20	22%
Compost yard	15	16%
Special collections	13	14%
Curbside Recycling Collection / Single Hauler	12	13%
Info session on various recycling programs	9	10%

COMMUNITIES REQUESTED MORE INFORMATION ON REGIONAL WASTE DIVERSION EFFORTS.

Communities expressed a strong desire to connect with other communities and to be informed about what other communities have accomplished and are presently working on. Many municipalities also asked to attend a discussion of the final report of this project. Knowing more about other Front Range programs was cited as an important tool to shape municipal discussions. Communities also mentioned the need for more information on their options for starting or expanding recycling and composting programs. This could be facilitated through informational sessions by topic areas and by sharing experiences from other communities.

COMMUNITIES WOULD LIKE TO COLLABORATE MORE WITH THEIR NEIGHBORS.

A further desire to collaborate with peer communities working on similar projects was cited as an important element of success. When municipalities were asked about which entities they would most like to collaborate with, the most common answer was adjacent communities. There is a high desire for regional collaboration facilitated by a neutral third party. Only some municipalities cited collaboration being provided by their county. Communities mentioned organizations like DRCOG and Eco-Cycle in the Denver metro area, and CML across the Front Range, as helping to foster conversations and collaborative work.

COMMUNITIES OFFERED FEEDBACK ON FRWD GRANTS TO FACILITATE GREATER USE.

Communities were overwhelmingly pleased to hear about FRWD and its goals, and as a result, seemed more willing to spend the time in the interview process. Communities were asked if and/or how the FRWD funds and technical assistance could potentially assist their communities. From these open conversations, several respondents discussed the barriers they saw in utilizing the grant program and offered suggestions to remove those barriers. The most common suggestions to improve access to funding were:

- Lower the minimum \$25,000 threshold or provide a sliding scale for smaller communities. Smaller communities indicated their desire to submit grant requests but had projects that were less than \$25,000. While RREO does provide smaller grants, smaller Front Range communities do pay directly into the FRWD fund and should benefit from the grant programs.
- Provide greater support for land acquisition and planning. Many interviewees spoke of a perception that FRWD prioritizes larger infrastructure projects with communities that have available land. Yet these communities felt there is not enough support available from FRWD for the land acquisition, planning and project execution needed to support these larger infrastructure projects..
- Clarify if the funding is available for policy development and staffing, or is intended solely for infrastructure development.
- Remove the matching grant requirements for municipal haulers.
- Provide grant writing assistance.

- Present to city councils and town boards to make municipal leadership aware of this opportunity and hopefully increase the focus on waste diversion.
- Develop technical assistance specific to small towns; it was perceived that the program is focused on large cities.
- Leverage more collaboration through network building and content sharing between municipalities.
- Simplify the grant application and the reporting requirements.
- Make awarded grant applications publicly available as a reference and provide a contact person for each awarded project that other potential applicants could reach out to for more information.

COMMUNITIES WERE UNFAMILIAR WITH EPR INITIATIVES

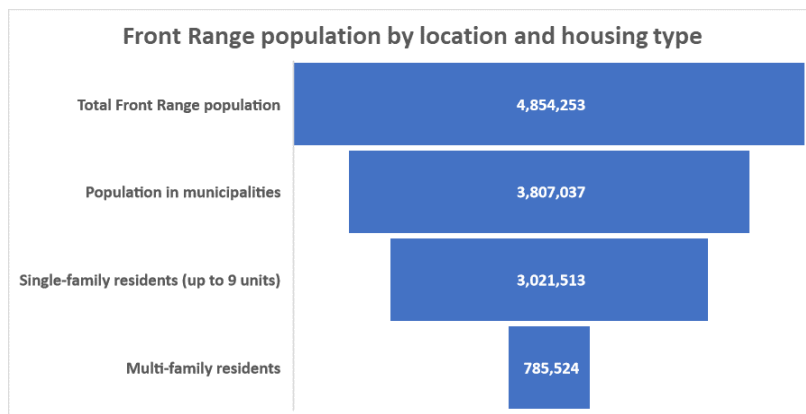
The majority of communities interviewed were not familiar with Extended Producer Responsibility nor the State's research on this topic in preparation for discussion in the 2022 legislative session. When EPR was explained along with the financial benefits it could provide to municipalities, all interviewees were in favor of EPR. A secure and consistent funding source for municipally organized recycling programs could fortify greater commitment to waste diversion.

UNDERSTANDING RECYCLING DATA AND POPULATION ESTIMATES

Most counties do not track recycling programs in unincorporated areas. There are over 1 million Front Range residents living outside of towns and cities in unincorporated areas, about 22% of the total Front Range population. There was not enough data to calculate access to recycling services for these residents. (Only Boulder County tracks recycling access in County areas.) Unincorporated areas, which include rural areas and communities known as census designated places (CDP), vary widely in size and location, from small mountain communities of a few hundred residents to large urban areas with tens of thousands of residents. Some larger communities offer subscription-based recycling, such as Highlands Ranch (100,000 residents). Others, such as Ken Caryl (33,000 residents), have an organized hauling contract for universal recycling. It is likely that residents in most urban CDPs have access to opt-in recycling services similar to those in neighboring communities, while it is unlikely that residents in unincorporated areas of the foothills or eastern plains have access to curbside recycling services. **However, because there was no adequate data to validate this, Eco-Cycle did not include unincorporated areas in the population estimates. All population calculations are based only on municipal residents.**

Nearly all municipalities lack data on multi-family services. According to US Census data, there are an estimated 785,000 residents in multi-family properties with 10+ units, about 16% of all Front Range residents. It is unknown what curbside recycling and composting services are available to these residents. Further, the census data is not a full reflection of the MFC population. State law defines MFCs as 8 units or more but the only population data available from the Census starts at 10+ units.

Municipalities lack data on HOA populations and services. Over 40% of the Colorado residents live in HOA communities statewide, representing 60% of homeowners. There are over [10,000 registered homeowner associations](#) throughout the state. Most municipalities do not have data on the number of residents in HOAs in their community and nearly all surveyed communities had no data on the recycling services provided in HOA neighborhoods. HOA neighborhoods are included in the population counts for single-family residents but there is not sufficient data to know if these curbside recycling and composting services are fully inclusive of HOAs.



MUNICIPAL PROGRAM DATA

CURBSIDE RECYCLING ACCESS

SOME TYPE OF CURBSIDE RECYCLING IS AVAILABLE TO 99% OF MUNICIPAL RESIDENTS.

Curbside recycling is available to over 99% of Front Range residents living in towns or cities. While overall access to curbside recycling is widespread throughout Front Range municipalities, this only indicates that residents **have access to** recycling programs. It does not mean that these services are provided universally, without additional cost, or that residents participate in these services. Along the Front Range, 80 cities and towns have curbside recycling services available, and 25 of those municipalities also have access to recycling drop-off facilities. There are 10 Front Range municipalities with no curbside or drop-off center recycling and two towns with only drop-off centers. These 12 communities without curbside represent approximately 11,200 residents, or less than 0.3% of the Front Range population living within municipalities.

Drop-off program only (no curbside recycling access)	No access to curbside recycling or drop-off center	
Nunn (Weld) Ramah (El Paso)	Bennett (Adams-Arapahoe) Calhan (El Paso) Deer Trail (Arapahoe) Gilcrest (Weld) Grover (Weld)	Keenesburg (Weld) Kersey (Weld) Larkspur (Douglas) Pierce (Weld) Simla (Elbert)

JUST UNDER HALF OF MUNICIPAL RESIDENTS HAVE UNIVERSAL CURBSIDE RECYCLING.

There are 28 Front Range communities providing universal curbside recycling services to residents automatically as part of their trash services, serving 45% of municipal residents along the Front Range. Under universal curbside recycling, residents are automatically provided with recycling service alongside their trash service. There is no need to subscribe to or opt-in to the service.

Universal curbside is typically limited to only single-family households or properties with seven or fewer units. Multi-family complexes of 8 or more units are considered commercial properties by Colorado statute and generally not included in residential recycling programs. Homeowners Associations (HOAs) are included in some municipalities' universal service offerings and exempted in others; there was incomplete data to be able to estimate HOA participation in these programs so this data may be higher than actual service levels.

28 municipalities provide universal recycling services to single family dwellings		
Arvada Boulder Bow Mar Columbine Valley Commerce City Dacono Denver Eaton Edgewater Fort Collins Foxfield	Frederick Golden Greenwood Village Hudson Johnstown Lafayette Lochbuie Lone Tree Longmont	Louisville Loveland Manitou Springs Morrison Northglenn Sheridan Superior Thornton

In addition to the Front Range, universal curbside recycling is provided in at least 17 cities and towns in Greater Colorado. This demonstrates that universal curbside recycling can work well in communities of all sizes and in all regions.

The remaining 54% of municipal Front Range residents have to subscribe to curbside recycling services and commonly pay extra for these services. Nationwide, it is estimated that only 30% of households subscribe to recycling in open market systems.¹ **It is unknown how many households subscribe to recycling in open-market systems specifically in Colorado. Based on the low subscription rate nationwide for opt-in programs, it is strongly recommended that FRWD prioritize working with municipalities to transition from opt-in to universal curbside recycling and include all HOAs in these programs as well.** This assessment identified 50 communities with opt-in programs. This includes six of the ten largest cities in Colorado that do not provide universal curbside recycling to all residents (see chart below). Expanding universal recycling services to these 1.4 million residents is perhaps the single biggest opportunity to increase recycling rates statewide.

Communities with over 10,000 residents without universal recycling service		
Aurora* Brighton Broomfield Castle Rock Centennial*	Colorado Springs* Englewood Greeley Lakewood* Littleton	Parker Pueblo* Westminster* Wheat Ridge

* one of ten largest cities in Colorado

¹ Sustainable Packaging Coalition, 2021. 2020-2021 Centralized Study on Availability of Recycling. <https://sustainablepackaging.org/spc-releases-comprehensive-update-of-its-centralized-availability-of-recycling-study>.

Access to curbside and drop-off recycling				
	Total number of communities with programs	Percentage of communities with programs	Residents served	Percentage of municipal residents served
Curbside and drop-off	23	25%	2,694,980	70.8%
Curbside only	57	62%	1,100,869	28.9%
Drop-off only	2	2%	594	0.0%
None	10	11%	10,594	0.3%

PAYT PROGRAMS ARE LIMITED BUT EFFECTIVE.

There are 11 Front Range municipalities with volume-based pricing for trash. This represents just 17% of the Front Range population. The communities with PAYT also have the highest recycling rates for residential programs, indicating that PAYT pricing is an important strategy to improve diversion rates. PAYT programs are implemented in three primary ways along the Front Range. Some municipalities, such as Arvada, Golden, and Lafayette, require PAYT pricing in their residential recycling contracts. Communities, including Boulder and Fort Collins, require PAYT pricing through their hauler licensing requirements. Lastly, cities like Longmont and Loveland that provide their own municipal recycling programs set their rates based on PAYT pricing.

Municipalities with volume-based pricing (PAYT) and bundled curbside recycling		
Arvada Boulder Edgewater Fort Collins	Golden Lafayette Longmont Louisville	Loveland Manitou Springs Sheridan

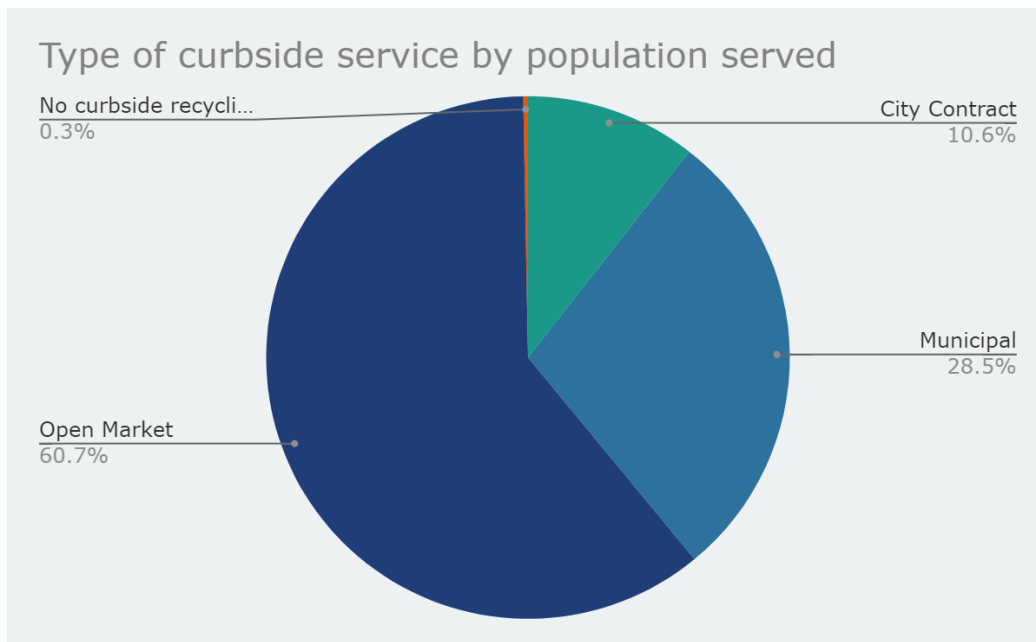
By contrast, in the majority of Front Range communities (46 municipalities), trash service is provided by private haulers through subscription based open market systems with no municipal involvement and their rate structure is unknown. Eco-Cycle’s anecdotal experience has been that most private haulers charge a flat rate for trash collection for up to a set number of trash cans/bags. Under this flat rate system, there is no financial incentive for residents to recycle more and reduce their trash size because there is no opportunity to subscribe to a smaller trash volume at lower cost.

There are also five known communities where residents pay for trash and recycling services through their taxes rather than through a direct household bill. Similar to the flat rate pricing system, this does not provide residents with a financial incentive to reduce their waste and lower their bill. These include Columbine Valley, Commerce City, Denver, Glendale and Lone Tree.

CURBSIDE RECYCLING IS PRIMARILY PROVIDED THROUGH AN OPEN MARKET SYSTEM BY PRIVATE HAULERS.

Curbside recycling is primarily provided by private companies under an open-market system where each household subscribes to their own services. Over half of Front Range cities and towns, representing over 60% of residents, rely upon the open-market system. An opt-in/subscription model puts the onus on the resident to request recycling and generally pay more for it. In addition, having multiple haulers servicing the same area can increase heavy truck traffic causing wear and tear on roads, increase greenhouse gas emissions from additional miles travelled, and increase road maintenance costs for municipalities.

Only 29 cities and towns along the Front Range have organized curbside recycling programs, with 5 municipally run programs and 24 communities with contracts for curbside recycling. By contrast, an estimated 70% of residents nationwide have organized waste hauling through either a contract, franchise or a municipally run program. **This illustrates how starkly different Colorado's open market recycling system is compared to the rest of the nation.**



Front Range Municipalities with Municipally Organized Curbside Recycling Programs

Municipal hauling	Hauler contracts to provide recycling	
Denver Longmont Loveland Northglenn Thornton	Arvada Bow Mar Columbine Valley Commerce City Dacono Eaton Edgewater Evans* Foxfield Frederick Glendale+ Golden Greenwood Village	Hudson Johnstown Lafayette Lochbuie Lone Tree Louisville Manitou Springs Morrison Mountain View Sheridan Superior

* Opt-in service only

+ Opt-in service for MFCs

DROP-OFF CENTER ACCESS FOR RECYCLING

OVER 70% OF RESIDENTS HAVE ACCESS TO A DROP-OFF CENTER FOR COMMON RECYCLABLES. MOST ARE MANAGED BY MUNICIPALITIES.

Most Front Range residents (71%) have access to a recycling drop-off center (DOC) for common recyclable materials such as cardboard, paper, and plastic, aluminum or glass beverage containers. 27 communities have DOCs in town.

Municipalities with curbside recycling access and DOC recycling			Municipalities with only DOC recycling
Arvada Ault Boulder Brighton Broomfield Castle Rock Colorado Springs Commerce City	Denver Englewood Erie Estes Park Fort Collins Fountain Jamestown Lakewood	Longmont Loveland Northglenn Pueblo Thornton Ward Wellington Westminster	Nunn Ramah

Drop-off centers are most commonly managed by local governments and most often by cities. There are only a small handful of communities that have a DOC managed by private businesses, such as Sustainability in Arvada, Waste Management in Ault and in Englewood, and Green Girl

Recycling in Longmont. Volunteers help manage DOCs in three communities including Estes Park, Castle Rock and Fountain.

HOMEOWNERS ASSOCIATIONS

THERE IS INSUFFICIENT DATA ON HOAs RECYCLING SERVICES.

Over 40% of the Colorado residents live in HOA communities statewide, representing 60% of homeowners. There are over 10,000 registered homeowner associations throughout the state.² Unfortunately, however, many communities do not have a complete list of active HOAs in their community, the percentage of residents in HOAs, and the types of services provided in HOAs. It is unlikely that data on HOA recycling services will come from municipalities and this is something that might be considered under hauler reporting requirements.

It has been Eco-Cycle’s experience that most mid- to large-size HOAs provide residents with waste collection services through a single-hauler contract. It is usually up to the HOA board to decide if this includes only waste collection or also includes recycling. The costs for waste collection are commonly included in the HOA fees and not visible to residents. This can make it very challenging to implement volume-based pricing in HOA neighborhoods since each household is not paying their own trash bill. However, it is possible to implement volume-based pricing in HOAs. Both Fort Collins and Lafayette require volume-based pricing in HOAs.

HOAs ARE INCLUDED IN SOME UNIVERSAL CURBSIDE RECYCLING PROGRAMS. Just under half of the municipalities with universal curbside programs extend the services to HOA neighborhoods. This is most common in communities that provide their own municipal recycling collection, including Longmont, Loveland and Northglenn, or are predominantly HOAs such as Lone Tree, Superior, and Greenwood Village. To be included in universal recycling programs, it was important that the HOA provide each household with a recycling cart rather than shared dumpsters among residents so that haulers could service these carts with the same trucks used to pick up other recycling carts from single-family homes.

Municipalities with universal recycling at most or all HOAs			
Columbine Valley	Johnstown	Loveland	Sheridan
Dacono	Lone Tree	Milliken	Superior
Greenwood Village	Longmont	Northglenn	

² <https://ipropertymanagement.com/research/hoa-statistics#colorado> ;

MULTIFAMILY AND COMMERCIAL PROGRAMS

MULTIFAMILY RESIDENTS ARE LARGELY UNDERSERVED BY CURBSIDE RECYCLING & COMPOSTING PROGRAMS.

Nationwide, only 30% of multifamily households have curbside recycling access compared to 70% of single-family homes, showing a significant disparity in services.³ Reporting from Front Range communities shows that multifamily residents are similarly underserved in Colorado.

Colorado statute CRS 30-15-401 prohibits municipalities from contracting for commercial waste and recycling services. Multifamily complexes (MFCs) of 8 or more residences are classified as commercial properties by state law. These properties are commonly serviced by dumpsters rather than household carts, which also makes them more likely to be serviced by commercial routes with trucks that can service dumpsters. **Since municipalities have limited oversight for MFC services, nearly all municipalities surveyed had very limited to no information on recycling or composting at MFCs.**

There are over 300,000 multifamily units on the Front Range, about 10% of the total housing units. In addition, there are 17 Front Range municipalities with at least 20% of their residences being multifamily properties.⁴ Unfortunately, the census data tracks MFCs with 10 or more units, but Colorado law designates MFCs with more than 8 units as commercial, so it is difficult to calculate the true percentage of MFCs that are considered commercial accounts for trash and recycling.

Municipalities with 20% or more of housing units that are MFUs	
Glendale (81%)	Lakewood (24%)
Denver (37%)	Broomfield (24%)
Boulder (32%)	Northglenn (24%)
Greenwood Village (32%)	Federal Heights (23%)
Lone Tree (31%)	Aurora (23%)
Englewood (31%)	Westminster (21%)
Edgewater (29%)	Golden (20%)
Sheridan (29%)	Wheat Ridge (20%)
Littleton (29%)	

³ Sustainable Packaging Coalition, 2021. 2020-2021 Centralized Study on Availability of Recycling. <https://sustainablepackaging.org/spc-releases-comprehensive-update-of-its-centralized-availability-of-recycling-study/>.

⁴ U.S. Census Bureau. "Units in Structure." <https://data.census.gov/cedsci/table?q=units%20in%20&tid=DECENNIALS32000.H031>. Accessed 9/22/20.

There are only a few Front Range municipalities actively engage with MFCs:

- **The City of Boulder** requires all MFCs to have recycling and composting services. The City partners with Eco-Cycle to provide ongoing recycling and composting education to MFCs. Boulder is also creating a database of MFC property managers to directly communicate about compliance with the City's Universal Zero Waste Ordinance.
- **Fort Collins** requires all MFCs to subscribe to onsite recycling services. The city also provides extensive education and technical assistance to MFCs to improve recycling, including providing recycling signage and education materials and conducting onsite assessments.
- **Longmont and Loveland** provide recycling services to some MFCs as part of their municipally-run collection programs.
- **Golden** is working to incorporate MFCs to its citywide ordinance for recycling and composting in 2022.
- **Glendale** allows MFCs to opt-in to its single-hauler contract and about half of MFCs have done so. Over 80% of Glendale's housing stock is MFCs, making the city a unique case study. Glendale has previously conducted a targeted MFC educational campaign. However, the frequency of resident turn-over impeded the campaign's success.
- **Denver** created a recycling presentation specific for MFCs that educates tenants on acceptable recyclable materials, Denver's recycling goal, and where to bring special items like electronics, HHW, and appliances.

PROGRAMS AND DATA ON COMMERCIAL RECYCLING AND COMPOSTING ARE VERY LIMITED.

Recycling services to the commercial sector are provided through open-market, private haulers and subscription based services. Most municipalities only track recycling programs and data for residents, leaving a substantial data gap around commercial waste generation and diversion rates. Only 8 Front Range municipalities report data on their commercial waste diversion efforts: Boulder, Denver, Edgewater, Erie, Fort Collins, Lafayette, Louisville, and Longmont.

Only two communities require some type of commercial recycling services:

- **City of Boulder's** Universal Zero Waste Ordinance (UZWO) requires all businesses and residents to have recycling and composting collection services. The policy also requires all property owners to provide recycling and composting services to their tenants, which was an important component of the policy since the majority of Boulder's businesses are in leased space. As a result of the policy, the city's overall diversion rate increased 17% within three years, rising from 40% in 2015 to 57% in 2018.
- **Fort Collins** adopted a Community Recycling Ordinance that requires recycling at all multifamily and commercial properties, and composting at grocery stores. All businesses and multi-family units within Fort Collins city limits are required to subscribe to single-stream recycling services. Recycling service level must be at least 1/3 of the overall service provided (i.e. 1 cubic yard of recycling service for every 3 cubic yards of

trash service). Haulers are required to bundle these services into the cost of trash collection. Fort Collins also requires composting services at all grocers that generate 96 gallons/week or more of food scraps. This requirement went into effect at the end of 2017, and Fort Collins grocers are meeting the requirements.

Voluntary programs to expand commercial recycling are in place in a handful of communities. The most common are Green Business programs to support commercial entities with recycling and composting information, such as programs in Denver, Erie, Boulder, Superior, Longmont, Louisville, Lafayette, and Westminster.

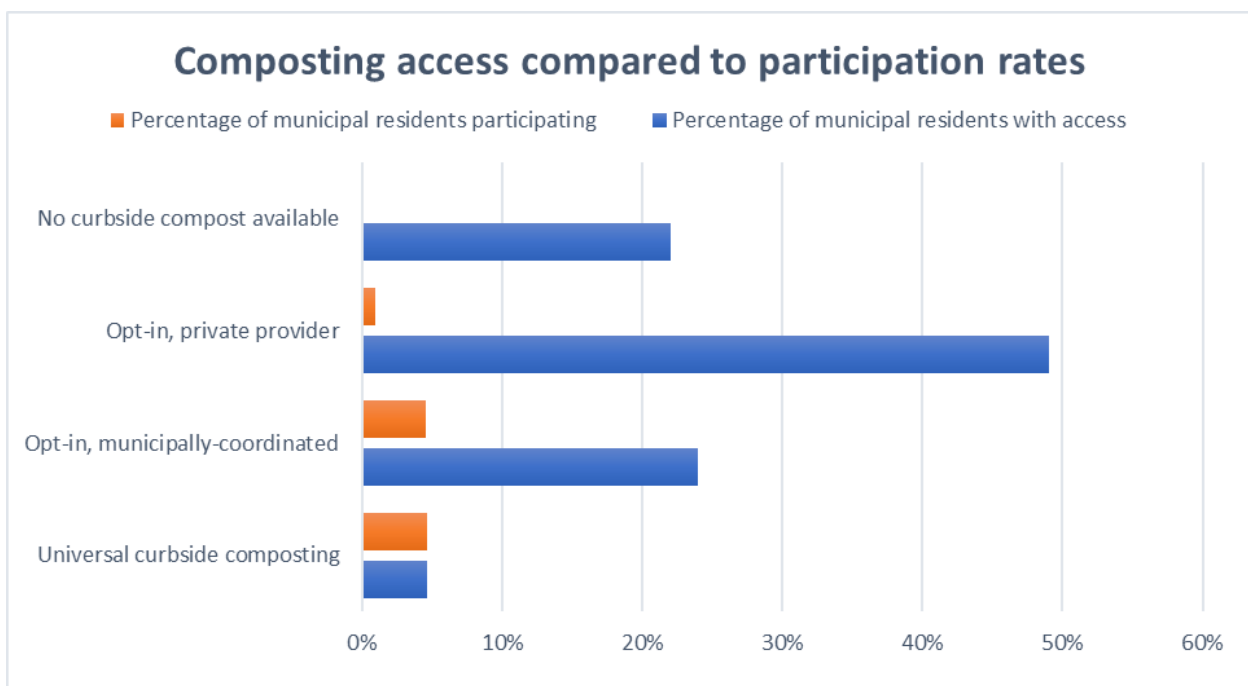
COMPOSTING PROGRAMS

UNIVERSAL CURBSIDE COMPOSTING COLLECTION IS VERY LIMITED.

Far fewer communities have composting programs compared to recycling services. **Only 4 municipalities have universal curbside composting programs that provide composting carts to all residents automatically: Boulder, Golden (adopted in 2021), Lafayette, and Louisville.**

Combined, these programs serve less than 5% of the Front Range population.

	Number of programs	Percentage of cities/towns with programs	Percentage of municipal residents with access	Percentage of municipal residents participating
Universal curbside composting	4	4%	4.7%	4.7%
Opt-in, municipally-coordinated	6	7%	24%	4.6%
Opt-in, private provider	20	22%	49%	0.1%
No curbside compost available	59	64%	22%	n/a



AN ADDITIONAL 6 CITIES/TOWNS COORDINATE AN OPTIONAL CURBSIDE COMPOSTING SERVICE FOR RESIDENTS.

There are two types of voluntary composting programs on the Front Range: municipally coordinated or privately serviced. In a municipally-coordinated program, either the municipality itself provides the composting collection or the community contracts for services with a private provider. There are six municipalities that coordinate voluntary, opt-in curbside composting programs for residents:

- Denver, Longmont and Loveland have municipally-run, opt-in curbside composting programs. Loveland's program is only a seasonal collection from April - November.
- Edgewater, Sheridan and Superior coordinate with private haulers to provide opt-in composting services to residents at an additional cost.

While these services are available to nearly $\frac{1}{4}$ of Front Range residents, participation rates in these programs are very low, meaning the actual number of residents served is much lower. The estimated percentage of residents served is only 4.6% of the Front Range population. For example, both Longmont and Denver have approximately 20% of residents subscribing to their curbside composting programs, which is consistent with national estimates. Loveland averages over 45% subscription to its seasonal yard waste collection. Participation rates in the remaining communities are unknown but expected to be between 10-20% based on regional and national experience.

Privately-run composting services are available in at least 20 additional Front Range communities. These services are primarily offered by small entrepreneurial haulers. While these programs are available in a large service area, they only serve a small number of households.

While there are nearly 60 municipalities without any access to curbside composting service, this only represents about 20% of the Front Range population. Some communities expressed a desire to include this service; however, most commented that the associated cost is too high for a municipality to absorb or pass through to residents.

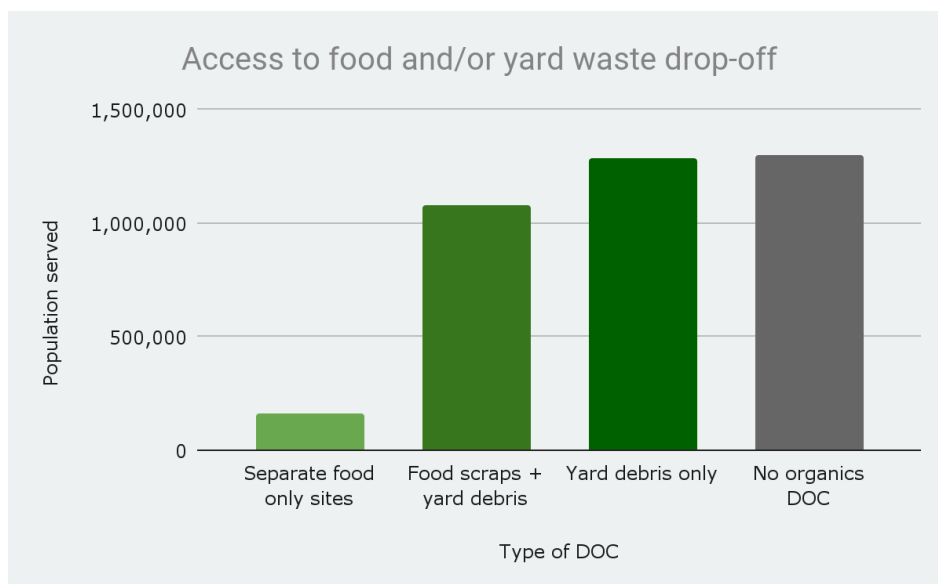
PRIVATE SMALL FOOD SCRAPS COLLECTION COMPANIES ARE GROWING.

There are at least 10 small, independent compost providers along the Front Range that primarily provide food scrap collection at households. While these services are growing in number and extending services into more and more municipalities, their reach remains small. Based on Eco-Cycle's estimates, fewer than 3,000 households currently participate in these programs, only 0.2% of the population where services are available. On a positive note, small compost haulers have started to make notable progress serving multifamily and HOAs through group contracts and at least one small private hauler hosts a drop-off center serving an additional 100 customers. These larger contracts could help scale their future growth.

OVER ONE-THIRD OF COMMUNITIES HAVE A DROP-OFF LOCATION FOR SOME ORGANIC MATERIALS, SERVING NEARLY TWO-THIRDS OF FRONT RANGE RESIDENTS.

32 towns/cities have drop-off sites that collect at least one type of organic materials, about one-third of the Front Range municipalities. Four municipalities cooperate with adjacent towns or local entities to provide drop-off sites and four municipalities collect slash for brush burning. The majority (77%) of these sites stay open year round with the remaining sites being seasonal (typically April-November). Drop-off sites for organics mostly target yard debris although vary from accepting multiple types of yard debris to only leaves and tree branches to slash only (limbs, branches and tree debris).

Food scraps collection at drop-off sites is very limited. **Only four communities accept combined food and yard debris** including Boulder, Denver, Longmont, and Thornton. Arvada, Wheat Ridge, Monument and Nederland have separate drop-off collections for food scraps only.



Note: Totals do not sum because some communities have separate sites for food and yard debris.

MOST ORGANICS DOCS ARE PUBLICLY MANAGED AND MOSTLY BY CITIES.

Municipalities manage most organics DOCs with some counties managing sites as well. There are only 8 independent sites managed solely by private providers. Municipalities and counties frequently mentioned the operational challenges of managing these sites, similar to those of recycling DOCs, including illegal dumping and high contamination rates for unstaffed locations. Some private food scrap haulers are starting to offer drop-off programs for food scraps. In many of these models, the private company places a roller cart in a centralized location and provides subscribers access to the carts to drop-off food scraps.

NO DATA WAS AVAILABLE ON IN-HOUSE COMPOSTING CONTAINERS.

Some private compost haulers provide in-home compost containers and a handful of municipalities mentioned having provided containers when launching programs. Most municipalities do not actively provide counter-top receptacles.

HARD-TO-RECYCLE MATERIALS AND CONSTRUCTION RECYCLING

HALF OF COMMUNITIES HOST SPECIAL COLLECTION EVENTS FOR HARD-TO-RECYCLE MATERIALS AT LEAST ANNUALLY.

Over half of Front Range cities and towns (58%) host at least one special collection event per year targeting hard-to-recycle materials. Commonly collected materials include household hazardous waste (HHW), electronics, metal, paper shredding, and prescription drugs (hosted by Police Departments). Some communities have also allocated funding to events for more expensive items such as mattresses and tires. Waste Management and a few other private companies are piloting "At Your Door" HHW collections in the south metro communities of Centennial, Glendale and Lone Tree. Additionally Golden has contracted with box trucks to provide curbside appliance and mattress pick-up programs. Communities like Lakewood and Wheat Ridge with strong Sustainable Neighborhoods chapters, support volunteers in hosting their own collection events for paint and electronics.

Special collection events are well received and commonly requested by residents. They can be used as an on-ramp to more permanent programs. However, communities commonly cited several challenges of these events, such as lack of staff to manage, expenses to collect and offload materials, illegal dumping during and post-event, and large turnouts that overwhelm streets and municipal resources. Many municipalities expressed interest in FRWD funding to host or expand these types of events.

Communities that do not yet host special collection events are generally enthusiastic to participate in a hosted event. This was especially true in small rural towns with limited recycling access. Many towns expressed a desire for regional collaboration for such events. Due to lack of staffing and funding, however, individual towns lack the resources to sponsor these events on their own and need support from outside entities or their county.

ONLY FOUR MUNICIPALITIES HAVE CONSTRUCTION AND DEMOLITION (C&D) RECYCLING REQUIREMENTS.

Diversion of construction and demolition materials is limited to only four communities. While many communities expressed an interest in doing more, they frequently cited logistical challenges such as not enough space on the construction site for multiple roll-offs, difficulty in training subcontractors, and difficulty in finding a central location to take recycled C&D materials as the primary obstacles. For communities that have C&D programs, challenges include lack of staff and/or resources to enforce construction recycling requirements as well as lack of facilities to process recyclables and means to sell large quantities of reusable materials.

Communities with C&D programs include:

- **Boulder** recently started a C&D deposit system that requires 100% of scrap metal, cardboard, and clean wood to be recycled and 75% of a deconstruction site must be reused, donated or recycled. Since the program is new, the city is still working with contractors to educate them on regulations.
- Through their city building code, **Fort Collins** requires certain construction and demolition projects to recycle specific materials. Remodels and additions over 2,500 sq/ft, and all new construction, must recycle the following materials: asphalt, concrete, metal, wood, and cardboard. Projects must also submit a Construction Waste Management Plan at time of permit application.
- **Lakewood** adopted a C&D recycling ordinance requiring the recycling of concrete, asphalt, untreated wood, metal, and cardboard. Due to challenges with enforcement, the city is currently working to create a deposit system.
- The town of **Nederland** has a C&D debris recycling deposit program for alteration or remodels, or new builds with 500 or more square feet.

EDUCATION PROGRAMS

HALF OF CITIES AND TOWNS HAVE BASIC WEB PAGES ON RECYCLING.

A good first step in recycling education is to provide a municipal web page with recycling information to help residents and businesses find recycling service providers and guidelines on what is recyclable. Half of Front Range communities have a dedicated webpage with recycling information; the large majority also had an option to translate the webpage into Spanish. Those without dedicated web pages were mostly smaller communities.

EDUCATION PROGRAMS VARY WIDELY AMONG MUNICIPALITIES AND COUNTIES.

Communities shared a variety of tools and resources to promote recycling education. Common approaches include:

- Information in utility bills
- Quarterly newsletters
- Mailers and postcards sent to residents, either annually or around program changes
- Promotion of special collection events
- Recycling app or A-Z guide tool on website
- Composting workshops
- Decals/signs on recycling bins
- Recycling guides for multiple materials on website
- Green business programs

COMMUNITIES COMMONLY ASKED FOR MORE EDUCATIONAL MATERIALS

Interviewees cited a need for more educational materials to help reduce recycling contamination as well as to remind residents to recycle. **Providing more educational collateral was among the top five most common responses to how FRWD funding and technical assistance could help communities.** The majority of municipalities were not familiar with CDPHE's "Erase the Waste" campaign and were pleased to learn about this state-wide educational campaign. Multiple towns advised they would post more social media if collateral was already prepared and made readily available. Municipalities shared their challenges with balancing communication methods to appeal to varying demographics. Older residents rely primarily on printed materials such as utility bill inserts for their information, while younger residents are more likely to view online collateral. Providing bi-lingual, and in some communities multilingual, information is essential.

LIMITED QUANTITATIVE DATA ON EDUCATION PROGRAMS

Information on education programs was largely qualitative in nature with towns, cities and counties describing the types of programs that they provide. During the phone interviews,

respondents were asked to describe their education programs. In order to provide more quantitative results, it may be helpful to provide a list of program options to check off if provided. This type of survey would capture each type of educational program in place and if the programs were ongoing or one-time only.

COMMUNITIES WERE EXCITED TO SHARE EDUCATIONAL RESOURCES AND EFFORTS

Municipalities were eager to share examples of their education programs and often spoke proudly of their initiatives. They were also excited to learn what other communities are doing and showed eagerness to borrow and share materials between communities to reduce the need to create new resources.

OTHER MAIN FINDINGS ON EDUCATION PROGRAMS

- Education is provided primarily by the recycling or waste hauling companies in many communities.
- Communities with the most comprehensive recycling education programs include Boulder, Denver, Fort Collins, and Golden.
- Grant funding was a common driver behind new education or outreach efforts, including an educational program in Erie funded by FRWD and campaigns in Longmont, Commerce City and Thornton funded by Recycle Colorado.
- Municipalities commonly partnered with nonprofits or volunteer groups to provide education.

CITIZEN ACTION GROUPS HELP PROVIDE EDUCATION AND HOST EVENTS.

Several communities have volunteer sustainability boards which champion waste diversion efforts, provide community education, and help with special collection events. Sustainable Neighborhoods have strong chapters in Lakewood, Wheat Ridge and Denver and frequently coordinate with city staff to host recycling and in some cases seasonal compost collection events. Other groups like Eco-Cycle's Eco-Leader in the Denver-Boulder area, Recycling Ambassadors in Ft. Collins, and the League of Women Voters in Estes Park are also actively involved supporting municipal recycling and composting initiatives.

WASTE DIVERSION PLANNING AND POLICIES

WASTE DIVERSION PLANNING IS IN PLACE IN 19 CITIES AND TOWNS; 12 COMMUNITIES HAVE SET NUMERIC WASTE DIVERSION GOALS.

One in 5 Front Range municipalities (19 total) have a waste management plan or a dedicated section in their climate or sustainability plan on waste diversion and recycling. Twelve communities publicly declared waste diversion goals that range from 34% to zero waste.

Municipality	Waste management plan	Waste section of climate or sustainability plan	Diversion goals
Boulder	✓	✓	85% by 2025
Broomfield	*		50% by 2025; 100% by 2035
Denver	✓	✓	34% by 2020
Edgewater		✓	34% by 2025; 60% by 2030
Erie		✓	
Fort Collins	✓	✓	Zero waste by 2030
Golden	✓	✓	Reduce waste 40% by 2030; capture 80% of recyclables and compostables by 2030
Lafayette		✓	50% by 2026
Lakewood		✓	60% by 2025
Louisville		✓	
Longmont		✓	50% residential diversion by 2025
Loveland		✓	
Lyons		✓	
Nederland**			85% by 2025
Northglenn		✓	Increase diversion 20% by 2023

Parker		✓	
Superior		✓	Increase diversion by 30%
Thornton		✓	
Westminster		✓	
Wheat Ridge		✓	

* in development

** adopted Boulder County plan and goals

MOST MUNICIPALITIES DO NOT HAVE POLICIES ON WASTE DIVERSION. HAULER LICENSING IS THE MOST COMMON TYPE OF WASTE DIVERSION POLICY.

Communities interviewed were asked about any waste diversion related ordinances, policies, or municipal codes that exist in their municipality. Only 29 communities cited an existing policy related to waste diversion. The most common policy being a hauler licensing ordinance (25), followed by mandatory recycling service ordinance (14), hauler reporting (14), PAYT (11), and equal space for recycling containers in trash enclosures (8). Other ordinances included bear-proof containers, disposable bag fees or bans, C&D recycling, cardboard landfill ban, and zero waste events.

WASTE REDUCTION POLICIES AND PROGRAMS ARE LACKING AND DIFFICULT TO TRACK.

Waste reduction policies were hard to consistently record across all communities, especially at the residential level. Communities mentioned education around waste reduction or programs, but there was very little policy mentioned. It was unclear if these educational programs were ongoing or just one-time events. The most common waste reduction education was around backyard composting. In addition, several communities mentioned programs to reduce waste from municipal operations such as adopting sustainable purchasing practices and reducing single-use products. Examples include:

- Thornton uses 25% recycled asphalt in its paving projects
- Hudson and Keenesburg host townwide garage sales encouraging reuse rather than landfill
- Fort Collins and Lafayette implemented a requirement for Impact Resistant Shingles to reduce the frequency of roof replacements.
- Lakewood, Northglenn, Westminster, and others have sustainable purchasing practices
- Parker eliminated single use paper and plastic items.

DATA COLLECTION

COMMUNITIES LACK RECYCLING AND COMPOSTING DATA. MOST DATA IS INCOMPLETE.

Only 20 Front Range municipalities were able to report their diversion rates and most of this data is only on residential recycling, leaving much unknown about commercial and multi-family programs. In Eco-Cycle’s research for our State of Recycling in Colorado reports, we have found that communities are very willing to share any data that they do have, talking about the challenges they have with data collection and reporting, and interested in comparing data and talking with other communities.

Municipalities that reported 2020 waste and diversion rates			
Residential only		Includes commercial	Include industrial & Commercial
Broomfield Commerce City Eaton* Evans Golden Greenwood Village Lone Tree	Loveland Northglenn Sheridan Superior Thornton	Boulder Denver Edgewater Erie Lafayette Longmont Louisville	Fort Collins

* Provided data for 2019 for 2020 State of Recycling & Composting in Colorado Report

COMMUNITIES LACK DATA ON CAPTURE RATES AND CONTAMINATION RATES.

Municipalities were asked for any data on recycling/composting rates and contamination rates. No communities were able to provide data on contamination. Thornton, Loveland, Denver and Fort Collins offered an estimate of contamination rates around 10-12%. Other cities mentioned that this data was not available from their hauler or MRF.

MUNICIPAL CHALLENGES TO IMPROVE WASTE DIVERSION

STAFFING AND FUNDING ARE PRIMARY CHALLENGES.

Communities were asked how their programs were going and about their challenges or issues. There was no set list of challenges for communities to choose from and communities were not asked about specific challenges (e.g. do you have problems with funding?). Eco-Cycle grouped the responses into categories below with further discussion below:

Challenges	Number of responses
Staffing	24
Expense	23
No recycling access close-by	16
Diversion viewed as a low priority topic	12
Contamination	11
Education	10
Data	6
High HOA/MFC	6
No land on which to situate DOC or transfer station	6
Political leadership is low or conflicted	6
Lack of policy/ ordinance or unsure how to implement	3
Need to expand recycling drop-off	3
Road maintenance costs	3
Uncertain of next steps	2

STAFFING CHALLENGES

Most communities lack dedicated recycling or sustainability staff.

- Only 12 communities identified dedicated staff for recycling programs. This includes 5 municipalities that provide direct recycling collection services (Denver, Loveland, Longmont, Northglenn and Thornton)
- There was no discernable trend among communities that cited staffing challenges in that both small, large, urban and rural communities cited staffing challenges.
- Communities commonly stated that waste diversion is managed by shared resources across multiple divisions including sustainability staff, public works, communications, billing, customer service, and community development.

EXPENSE CHALLENGES (both of running programs and the cost to residents)

- Municipalities frequently cited lack of funds in municipal budgets to kickstart any new programs. Even if grant funding were available, many communities stated a one-time payment would be insufficient to sustain any permanent programs.
- Special collection events frequently run over budget if more residents show up than expected.
- Many communities stated their residents cannot afford the extra cost to recycle or compost. Eight communities specifically mentioned that subsidies would greatly promote recycling participation. Two Weld County towns, Kersey and Pierce are awaiting enough residents to opt-in to curbside recycling before the private hauler will begin service. Cost is a factor in getting enough residents to opt-in.

LACK OF RECYCLING ACCESS

- Curbside recycling is an added expense in at least half of Front Range municipalities. Some residents rely on drop-off centers to save money but residents do not have geographically convenient recycling access. Some communities cited inconvenient and limited hours of operations of drop-off centers.
- Elderly populations are less likely to drive to DOCs.

LOW PRIORITY TOPIC

Many communities said that recycling, composting and other waste diversion topics just are not part of the community conversation. Other communities stated higher priorities absorb all their time. Other communities have politically-split city councils which are hesitant to move forward on waste diversion-related agenda items. Some rural communities expressed concerns that recyclables are not being recycled and instead are headed to landfills.

ILLEGAL DUMPING IS COMMON PROBLEM FOR DROP-OFF SITES

Several communities commented on illegal dumping challenges at drop-off locations and the cost burden to staff these locations to reduce dumping and contamination. Illegal dumping and operational costs led Aurora, Windsor and Northglenn to recently close community drop-off centers.

EDUCATION CHALLENGES

Providing education and community outreach was a frequently heard challenge. Communities lack the staff time required to create and distribute the educational collateral to provide to residents. This is particularly important because communication campaigns were cited as a key success strategy in residents recycling more and recycling right to reduce contamination.

- Cultural and language barriers are a prevalent concern in communities such as Aurora and Commerce City. Continual bi-lingual and multilingual recycling education campaigns needed.
- Tenants in multifamily housing have frequent turn-over making it difficult to instill recycling habits and necessitating ongoing or frequent education campaigns.

RECOMMENDATIONS FOR SMALLER COMMUNITIES

There are 38 municipalities on the Front Range with populations less than 5,000 residents. Of those, there are 21 communities with fewer than 1,000 residents.

SMALL RURAL TOWNS HAVE GREATER CHALLENGES THAN THEIR URBAN COUNTERPARTS

The interviews and data collection identified a clear divide between smaller communities in metro areas where recycling services are more widely available, and rural towns that lack access to recycling due to their geographic location. There are 10 small towns with no curbside recycling service or drop-off centers, primarily rural communities:

Municipalities with no recycling access		
Bennett (Adams-Arapahoe) Calhan (El Paso) Deer Trail (Arapahoe) Gilcrest (Weld)	Grover (Weld) Keenesburg (Weld) Kersey (Weld)	Larkspur (Douglas) Pierce (Weld) Simla (Elbert)

A common theme for small rural towns was an interest in participating in special collection events for hard to recycle materials as a first step in their waste diversion journey. Such events can build awareness and enthusiasm for additional recycling/composting initiatives. Due to lack of staffing and funding, such events would need to be facilitated by an outside entity or the county. There was particular concern regarding illegal dumping that sometimes occurs during and after collection events that towns do not have staffing or funding to properly clean-up.

SCALE DOWN THE SURVEY FOR RURAL AREAS AND SMALLER MUNICIPALITIES.

Smaller towns were most able to answer questions related to recycling and compost access, providers, special collection events, challenges, and where they could use help. Questions that were less relevant for rural communities include those around existing policies, C&D, commercial and MFCs, HOAs, and waste plans and goals.

SMALLER COMMUNITIES MAY NOT MEET FRWD MINIMUM FUNDING REQUIREMENTS.

Many smaller towns expressed concerns that the \$25,000 minimum threshold for FRWD grants was outside of their reach since their projects are typically below this amount. Towns also expressed concerns that they lack the staff to write grant proposals and to administer them if they were to receive a grant.

COUNTY SURVEY RESULTS & RECOMMENDATIONS

Broomfield and Denver are city/county jurisdictions and are covered under the municipal data information section of this report. None of the statements below refer to these counties.

COUNTY INVOLVEMENT IS LIMITED AND VARIED.

Most of the recycling, composting, and waste diversion programs are happening at the municipal level rather than the county level. Most counties spoke about their limited authority under Colorado law to regulate what happens within municipal jurisdictions, particularly in home rule municipalities. With the exception of Boulder County, most counties were not providing services or regulating services in unincorporated areas. Further, some counties stated that they did not want to interfere with gaps that could otherwise be filled by private businesses.

When counties are involved in recycling, their role is often concentrated on managing drop-off sites, particularly those for hard to recycle items, but also for standard recycling convenience centers and transfer sites for the more remote areas. Some counties receive revenues from their in-county landfills that are used to help fund special collection events.

BOULDER COUNTY IS ONLY COUNTY REGULATING SERVICES IN UNINCORPORATED AREAS.

Boulder County is the only county to regulate services in unincorporated areas. The County requires curbside recycling in unincorporated areas. The County policy also includes curbside composting and volume-based pricing. However, it exempts the foothills areas of the County.

SERVICES IN UNINCORPORATED AREAS OF THE COUNTY ARE SIGNIFICANT DATA GAP.

Most counties do not provide curbside recycling services in unincorporated areas of the counties and most do not track data on recycling access or services in these areas. The exception to this is Boulder County, which collects data from haulers specific to unincorporated areas. Overall there are over one million residents in unincorporated areas, more than 20% of the Front Range population. Without data on which areas and residents have recycling services, it is difficult to accurately represent the extent to which Front Range residents have recycling services. (See previous discussion on data challenges.) Future surveys could seek to map out recycling access in unincorporated areas by collecting data from counties, municipalities, and private haulers to better understand and quantify existing services and gaps in unincorporated areas.

KEY FINDINGS FROM COUNTY ANALYSIS

- All counties have a dedicated webpage for recycling information.
- All but three counties have at least some type of drop-off center for common or hard-to-recycle materials. Teller, Elbert and Pueblo County do not have any drop-off locations for these materials.
- Six of 13 counties have drop-off sites for common recyclables, including Boulder, Broomfield, Denver, Douglas, El Paso (no plastic accepted), and Larimer counties.

- Eight of 13 counties have at least one drop-off location for organic materials. Half of these sites are seasonal and the other half are year-round. Most accept slash and tree branches; only Denver accepts food scraps at its organics drop-off program.
- Solid waste planning is very limited at the county level. Boulder, Denver and Larimer have countywide waste management or zero waste plans, and Broomfield is currently developing a zero waste plan. Adams County includes waste reduction and recycling in its sustainability plan.
- Boulder, Broomfield, Denver and Larimer have recycling and composting goals.
- Most counties provide some educational materials and programming. Arapahoe, Elbert and Douglas Counties did not provide any educational materials. Adams, Arapahoe and Douglas are part of educational materials provided by Tri-County Health Department.

FRWD ASSISTANCE FOR COUNTIES

The vast majority of county interviewees were not familiar with FRWD. Enthusiasm for grant funding was pervasive. Douglas, Larimer, and Jefferson counties expressed solid interest in applying for the upcoming grant rounds.

VISUAL SCORING INDICATORS AND RANKING PROGRESS

Eco-Cycle developed a scoring metric to show each municipality’s progress toward comprehensive waste diversion programs and policies. Cities and towns are then groups into four categories to indicate overall progress:

- Advanced: 76% - 100%
- Intermediate: 51% - 75%
- Beginning: 26% - 50%
- Needs Assistance: 0% - 25%

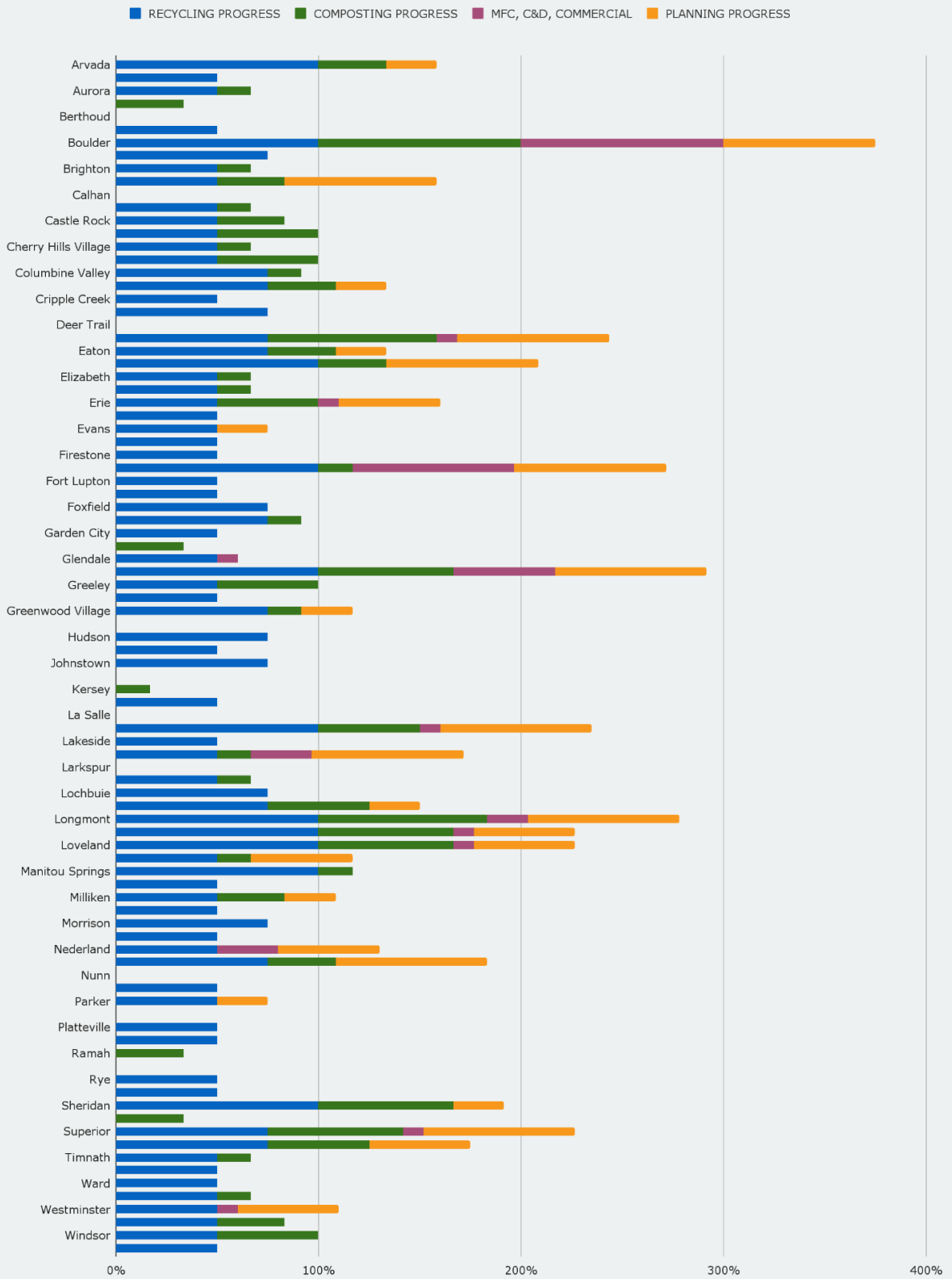
The results are shown in the [Tableau interface](#) and in the bar chart below. On the online visualization, municipalities can sort by population size to compare between their peers.

The scoring system is based on the following calculations and can be expanded to include future criteria or adjusted to assign more or fewer points to each action:

Recycling	Composting	MFC, Commercial, C&D	Planning & data
<u>Curbside access:</u> Universal: 3 Opt-in: 2 DOC: 1 <u>Pay structure:</u> PAYT: +1	<u>Curbside Composting:</u> Universal: 3 Opt-in: municipal: 2 Opt-in private: 1 <u>Organics DOC:</u> Food and Yard: 3 Yard waste: 2 Partial yard or food only: 1	<u>MFC:</u> All recycling/composting: 3 All recycling: 2 MFC can opt-in to municipal services: 1 <u>Commercial services:</u> All recycling/composting: 4 All recycling, some composting: 3 All recycling: 2 Some outreach: 1 <u>C&D:</u> Ordinance for diversion: 3	Has plan: 1 Includes waste in other plan: 1 Track data: 1 Have goals: 1

Bar chart with community progress by action steps

(note not all cities and towns show on chart below because of size constraints)



SUGGESTIONS FOR FUTURE DATA COLLECTION AND COMMUNITY OUTREACH

BIANNUAL SURVEY AND ONGOING PROACTIVE OUTREACH

Based on the overwhelmingly positive responses we received from the municipalities and counties interviewed for this project, Eco-Cycle recommends repeating this data survey every two years. While the interviews were time intensive, they resulted in a comprehensive analysis of recycling, composting and waste diversion programs around the Front Range. We strongly feel these one on one conversations with communities are a very valuable investment and that this type of relationship-building is essential to accelerating waste diversion projects.

Eco-Cycle strongly recommends regular outreach to Front Range communities to maintain these relationships. All of these municipalities and counties are balancing numerous competing demands. Ongoing, proactive communication is essential to ensure that waste diversion remains top of mind and becomes a stronger priority for many communities.

Based on the concerns and needs raised by the interviewees, Eco-Cycle strongly recommends these outreach and engagement strategies:

- Host informational forums, webinars and regional meetings several times a year. Many communities asked for an information forum to review the results of this report.
- Designate a point person or team to maintain regular contacts with these communities and direct them to resources and services.
- Establish cohorts of communities with like needs and target specific actions and information to these communities.
- Consider providing grant writing support to communities.

Many of these initiatives could be conducted in collaboration with existing partners and organizations such as Recycle Colorado, Eco-Cycle, DRCOG, CC4CA, CML and others. This project established a good foundational relationship with nearly every Front Range community and we want to underscore the need to continue that relationship in some form to proactively advance waste diversion efforts.

DATA GAPS AND RECOMMENDATIONS FOR FUTURE DATA ANALYSIS

Eco-Cycle recommends the following modifications to future data collection projects for a more efficient process and usable data:

- **Consider limiting interviews to communities with over 1,000 residents.** The smallest Front Range communities typically not designated staff to oversee waste diversion and collection. In many cases, we were only able to talk to a town clerk. While these folks were very pleasant and were able to provide some information, they are, by nature of

their job, very limited in their decision-making power and often emphasized the need to present this information to the Town Board or Council. Our most fruitful conversations in small communities were with a community development manager/planner, town administrator, or the mayor. For any future outreach to small communities, we would recommend reaching out directly to mayors to start the conversation.

- **Work with counties and regional stakeholders to estimate services in unincorporated areas.** Unincorporated areas are a significant data gap in this assessment. Only Boulder County currently tracks recycling services in unincorporated areas. Future reports may be able to quantify services in unincorporated areas by working with county staff, nearby municipalities, and regional haulers. Alternatively, as FRWD works to expand data collection across the Front Range, consideration should be given to requiring haulers to report service provided to unincorporated residents (see Boulder County reporting as a model).
- **Continue to invest in phone interviews.** These one on one conversations resulted in both strong relationship building as well as much more information than would have been gathered in an online survey. Many conversations ran over their scheduled time as interviewees were excited to share their experiences and challenges and to learn more about FRWD. However, as noted, it can be difficult to find the right person to talk with and sometimes to ensure the data being collected is accurate, especially when trying to distinguish between specific types of recycling service levels and ordinances.
- **Develop a checklist for several data fields for more consistent results.** While phone interviews are strongly recommended as the preferred data collection method, there are some limitations in the amount of data that can be collected and the conversations tend to be more qualitative in nature. For example, there was a lot of confusion around the ordinances and policies that are in place. Ideally communities could be provided with a list of policies and an accompanying explanation of each one before selecting what they have in place. A similar structure would work well for other data categories including educational programs, waste reduction initiatives, and challenges and needs.
- **Maintain Tableau dashboard and invest in a customer relationship management (CRM) tool.** Tableau is a valuable tool for organizing and visualizing waste diversion programs and results around the Front Range. Through the completion of this project, the initial back end work has been developed to build this platform and can be reused for future updates or a potential companion project to evaluate communities in Greater Colorado. Hubspot was used as a CRM tool to capture interview notes and contact information, and to manage emails and responses. This was much easier than working in a spreadsheet for that information. Hubspot or a similar CRM tool is a recommended way to update and maintain contacts.

- **Work with MRFs on contamination data.** Municipalities have limited data on recycling programs and even those with the best data were not able to provide solid numbers of contamination rates. This might be better captured at the Material Recovery Facility (MRF) level.
- **Consider requiring haulers to report on the number of households served.** The majority of Front Range households are in opt-in, curbside recycling programs and it is unknown how many households are subscribing to these services. This may be the single biggest data gap on recycling services. One option to collect this data is to require haulers to submit the number of households served as part of their hauler licensing. Boulder County does include this in their reporting as a model.

APPENDIX

DEFINITIONS FOR KEY TERMS

Drop-off center (DOC)- Permanent location where residents can drop off specified items for recycling or responsible disposal. DOCs may target common recyclables, hard to recycle materials, household hazardous materials or organic materials.

Universal curbside service - Residents are automatically provided with curbside recycling service as part of their trash collection. Residents do not have to separately request to have recycling collection from the hauler. Also known as parallel recycling access, automatic recycling access, or guaranteed curbside recycling. This can be done through a municipal contract, through municipally-run programs, or through a municipal ordinance requiring haulers to provide this service. Some of these municipalities also extended the service to multifamily properties and/or HOAs.

Opt-in - Voluntary, subscription based service under which a resident or business must choose to participate in the program offered. Open market systems are always opt-in; some municipal contracts may also be opt-in.

Open market - Is a voluntary, opt-in subscription based recycling system with no organized municipal contract or municipally-run services.

Organized collection - Municipalities or HOAs are coordinating recycling services on behalf of residents through group contracts or municipally-run collection programs.

REPORT METHODOLOGY

Eco-Cycle contacted 92 municipalities in the Front Range and held in-depth phone interviews with 75 cities and towns. The team also interviewed all 13 counties and the Tri-County Health Department. (Broomfield and Denver were included in the municipalities data set rather than the counties dataset.)

Eleven municipalities did not respond after three attempts to contact, including Boone, Bow Mar, Cripple Creek, Elizabeth, Firestone, Hudson, Kiowa, La Salle, Lochbuie, Raymer and Woodland Park. Eco-Cycle also researched all municipal and county websites on recycling and composting services to complete this assessment. The unaccounted-for municipalities represent approximately 3% of the Front Range population.

Our methodology was:

Preparation:

- Created a written questionnaire including all of the desired data points.
- Created a Google spreadsheet to mirror the questionnaire data categories.
- Researched contact(s) for each municipality.
- Researched city/town/county websites for related information to pre-fill in Google spreadsheet

Outreach Campaign:

- A representative from each community was contacted via phone and email. Approximately 189 phone calls and 166 emails were made to the cities, towns and counties. Fifty percent responded on the first outreach attempt. On average it took 1.8 calls and corresponding emails per municipality. At least three outreach attempts were made for each community if needed. In some cases up to 5 outreach attempts were made to different individuals in an attempt to secure a phone interview.
- 75 out of 92 communities (82%) were interviewed. Eleven municipalities did not respond after three attempts to contact, including Boone, Bow Mar, Cripple Creek, Elizabeth, Firestone, Hudson, Kiowa, La Salle, Lochbuie, Raymer and Woodland Park. Three municipalities (Castle Rock, Frederick and Mountain View) were not able to provide complete data. There were three towns with smaller populations for which we were unable to find appropriate contacts (Jamestown, Ward, and Lakeside). All thirteen counties were interviewed, in addition to the Tri-County Health Department which represents Adams, Arapahoe, and Douglas Counties.
- Calls were made to small organics haulers to better understand their services and service areas.
- A follow-up thank you email was sent when appropriate which provided additional information about FRWD and upcoming grant rounds.

Data Recording:

- Interview notes were recorded in Hubspot CRM and then transferred into the relevant categories in the Google spreadsheet.
- Google sheets was used to create an Excel spreadsheet and Tableau data visualizations.

Data Quality Check:

- Community responses were checked against the 2020 and 2021 State of Recycling & Composting in Colorado Reports, other Eco-Cycle research projects on Colorado programs, and program knowledge from past experiences, Recycle Colorado contacts and more. Several staff reviewed the data and refined the categories throughout the project.

SERVICES REQUESTED FROM FRWD

Request	Number indicating	Percent of respondents
Funding Needed	36	39%
Facilitate regional cooperation	28	30%
Project Mgmt needed	27	29%
Recycling Drop-off Center	22	24%
Education / Outreach	21	23%
Staffing needed	20	22%
Compost yard	15	16%
Special collections	13	14%
Curbside Recycling Collection / Single Hauler	12	13%
Info session on various recycling programs	9	10%
Subsidies	8	9%
Curbside Compost Collection	7	8%
Info session on muni composting	7	8%
Info session Policy; process, templates, enforcement, legalese	6	7%
Hauler data	5	5%
C&D Facility	5	5%
MFC integration	5	5%

Political influence	4	4%
Easier FRWD application & reporting	4	4%
HtR / HHW drop-off site	4	4%
FRWD present to City Board	4	4%
Pilot projects like RepEATer- reusable food containers, food recovery	4	4%
Bear proof cans	3	3%
Engagement with business community for Circularity	3	3%
Coordinate with large event organizers in town for recycling	3	3%
Cardboard Collection site	2	2%
Cans/bottle pilot site	2	2%
Info session on Slash curbside collections	2	2%
Info session C&D and bringing stakeholders together	2	2%
Waste Audit	2	2%
Guidance on spending plastic pollution act revenues	1	1%
% recyclables in trash study	1	1%
Bldg Composition Data	1	1%