



Boulder County Residential Composting Survey Report

Summer 2025

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Boulder County Residential Composting Survey

Executive Summary

Boulder County recently conducted an informal, residential survey on composting. The main goals were to understand what organic materials residents generate, how they manage materials, diversion challenges, and to gather feedback on a potential composting facility. The survey results will be used to help inform educational efforts, programs and infrastructure. While the results will help guide future county decisions, they are only one piece of the community outreach and engagement opportunities.

To gather input, the county mailed postcards to 5,000 randomly selected households across the county, which included renters, homeowners, single-family and multi-family homes. Thes ample was carefully stratified or divided to represent different areas of the county based on population size, to ensure all parts of the county were fairly represented. Each postcard invited residents to complete a 24-question survey, which they could access online or by phone. The survey was available in both English and Spanish. The postcards were mailed on March 27, 2025 with the survey closing on April 20, 2025.

Key Terms

The following terms were clarified in the survey to reduce confusion. 'Organic materials or organics' are from natural sources, including things like food scraps and yard trimmings. Organics can be placed in a collection bin and added to the start of the composting process. However, it is not necessary that all organic materials can be composted commercially or in backyard piles. 'Composting' is a controlled process where organics breakdown. The term 'composting' is specific to a managed biological process, not placing organics in a collection bin. 'Finished compost' is the end product of the composting process. Finished compost is a soil product that is applied to land to improve soil health, hold water, and help plants grow."

Key Survey Findings

The survey had a 10% response rate with 481 responses included in the analysis. The results are statistically significant for Boulder County's population of 330,000 residents. Survey respondents were evenly distributed throughout the county, proportionally representing municipal and unincorporated areas. Survey respondents were most likely to:

- Take the survey in English (99%)
- Be 65 or older (41%)
- Self-identify as white (82%)
- Live in a 2-person household (50%)
- And live in a single-family home (83%) that they owned (92%).

Organics Generation & Management

- Food scraps (96%), paper products (89%), and yard trimmings (84%) were the top reported organics generated by households, followed by compostable packaging (60%).
- A higher proportion of respondents utilized curbside trash collection services (97%) and curbside recycling collection (96%) than curbside organics collection (74%).
- Most respondents diverted organics (83%):
 - o 64% through curbside collection alone
 - o 8% through at-home management alone
 - o 9% through a combination of methods
 - o 2% through drop-offs alone
- About 17% of respondents do not divert their organic materials.

Finished Compost

- Most households surveyed had a yard or other outside area that they managed (88%).
- Of respondents with outdoor areas, mulch (70%), potting soil (59%), and finished compost (50%) were the top three used products. The average respondent used 1-5 bags (~0.25 cubic yards) of products annually (45%).
- For the respondents with an outdoor area that currently **do not** use finished compost (212 respondents), the top barriers to use were:
 - Not understanding how / when to use it (37%)
 - Not knowing where to get it (36%)
- About a third of these respondents were interested in trying finished compost (31%).

Awareness

- While respondents reported understanding what is allowed in their organics bin (75%), almost half did not know what happened to the material after collection (48%).
- Most respondents reported composting everything that they could (65%).
- Some respondents agreed that they had space in their yard to compost (56%) but fewer agreed that they had the time to backyard compost (44%).

Beliefs

- Respondents disagreed or strongly disagreed with the statements that composting was a waste of money (95%) and composting was a waste of time (94%).
- Respondents **agreed or strongly agreed** with the statement that composting helps save space in the landfill (96%) and that composting helps to conserve natural resources (96%).

Challenges

- When asked about top challenges in diverting organics the top answer was 'No barriers or challenges to composting' (45%).
- The second top selected challenge was 'Other' (19%) with about 40% of these comments referencing materials not being accepted, including restrictions to compostable bags, tissues, paper towels, paper, or compostable packaging, which were previously accepted.
- Other challenges were the smell (17%), issues with flies, wildlife, or pests (16%), and not generating enough material (14%).

88%

Agreed or strongly
agreed with
"Boulder County
should increase
access to organics
diversion options"

Compost Facility

One survey section asked about general opinions and priorities related to a local compost facility. The questions were kept broad because a specific site has not been chosen yet.

Respondents were asked to rank which materials were the most important for a compost facility to accept. When asked about which materials were a priority

- Food scraps were ranked as the most important material for a compost facility to accept (43% ranked them as the top priority).
- Yard trimmings were ranked as the second most important material, followed by paper products.
- Certified compostable packaging and agricultural waste materials ranked fourth and fifth, respectively.

85%

Agreed or strongly agreed that "Boulder County should invest taxpayer dollars to support composting infrastructure"

Respondents were asked about the top interests and concerns of a local compost facility and allowed to select up to three answers or none of the above.

- The top selected interests in a local compost facility:
 - o 59% chose increasing material diversion from the landfills
 - o 38% chose overall greenhouse gas emission reductions
 - o 33% chose potential acceptance of compostable packaging
 - o 32% chose access to finished compost
 - o 27% chose improving health of local soils
 - Only 4% selected 'none of the above'
- The top concerns about a compost facility were:
 - o 38% chose ongoing costs
 - o 34% chose contaminated finished compost
 - o 31% chose initial development costs
 - o 30% chose odor impacts
 - o One in five respondents selected none of the above (20%)

Introduction

Boulder County conducted a residential survey on organics diversion, composting and high-level feedback on a regional compost facility. Postcards were mailed to 5,000 randomly selected property addresses in Boulder County. The postcards had a link and QR code to a 24-question survey, available in English and Spanish. The postcard is attached as Appendix A. The survey objectives were:

- 1. Advance understanding of residents' access to organics diversion and composting opportunities, awareness and challenges around participating.
- 2. Receive high-level feedback from residents about potential opportunities and concerns around a local facility, especially prior to any site(s) being selected.

This informal survey aimed to provide the county with an additional set of data and perspectives to consider when analyzing educational efforts, programs, and infrastructure around organics diversion. The survey data is not intended to be a replacement for community engagement or outreach.

Methodology

Survey Design

Overview

The survey was designed for each respondent to complete individually, with a limit of one response per household. Questions were aimed at investigating composting awareness, beliefs, behaviors, interests, and concerns with a potential compost facility.

The survey was developed in an iterative review process. Survey topics were first drafted and reviewed by Boulder County staff, followed by question development. The survey questions were reviewed by staff and the compost facility feasibility study consultants to check for survey bias and question clarity. Survey language was also entered into a plain language website to ensure the survey was at or under a 9th grade reading level¹. Staff tested the online survey for useability, logic, and question flow in the online platform (SurveyMonkey.com). Upon finalizing the survey questions, the survey was translated into Spanish by an outside consultant, Language USA. The first question asked participants whether they wanted to take the survey in English or Spanish using the same survey link, bifurcating into English and Spanish survey versions. Finally, the survey was reviewed for digital accessibility and tested on mobile devices.

The questions were primarily checkboxes, drop-downs, multiple choice, ranking or Likert scales (or rating scales) for statement agreements, to make the survey easier and faster to complete and simpler for data analysis. When possible, answer choice order was randomized to reduce response order bias. An open-ended answer box was provided at the end of the survey to allow participants to expand on answers, and provide comments, questions and feedback. A copy of the survey is attached as Appendix B.

Sampling Design

Target Population

The survey's target population was Boulder County residents, age 18 or older. Based on the Colorado State Demography Office data from 2022, the population of Boulder County is 327,424.² The ideal response sample size is 384 respondents, to have a 95% confidence level and 5% margin of error.

Sampling Procedure

A stratified sampling procedure by location was used to get a sample reflective of the populations within Boulder County communities. Each municipal population was divided by the total Boulder County population to provide a ratio of population for each municipality. These percentages were multiplied by the total number of postcards sent out, 5,000. Five thousand postcards were chosen to reach the target of 384 responses or about 7.7% response rate. Figure 1 provides the municipal populations, percentages and number of addresses per area selected.

Figure 1: Stratified Sampling Procedure – Number of Postcard Addresses by Location

Boulder County Communities	Population ³	Percentage of Total Population	Number of Addresses by Location
Boulder	105,650	32.27%	1,613
Erie (Part)	14,809	4.52%	226
Jamestown	250	0.08%	4
Lafayette	30,890	9.43%	472
Longmont (Part)	98,498	30.08%	1,504
Louisville	19,394	5.92%	296
Lyons	2,145	0.66%	33
Nederland	1,478	0.45%	23
Superior (Part)	12,240	3.74%	187
Ward	128	0.04%	2
Boulder County	41,942	12.81%	640
TOTAL	327,424	100%	5,000

Note: "Part" refers to the municipalities in more than one county. Populations for these municipalities reflect only the population within Boulder County.

After allocating the percentage of postcards to go out to residents in each municipality and unincorporated area, the corresponding number of addresses were gathered. This was accomplished by using Boulder County Assessor's Office data.⁴ Staff pulled all the addresses in Boulder County into an Excel spreadsheet from the following assessor account types: Affordable Housing Residential, Agricultural with Non-integral Residential, Apartment, Manufactured Homes, Residential and Residential Condos for the County. Duplicate addresses were removed. The property address city / town column checked to confirm whether the address was within that listed city. Unincorporated Boulder County addresses will list a nearby city but still be in the unincorporated areas of the county.

The last steps were to randomize which addresses were pulled for the survey. Addresses were assigned a number using Excel's random number generator function. Sorting from highest to lowest, the addresses with the highest random numbers were selected, using the corresponding location ratio. For the majority of locations, the randomly selected property address was used. For the mountain communities, if the property address also had a mailing PO Box listed, the postcards were addressed to the PO Box to increase chances of delivery. The last step was to remove the property owner name and use "Current Resident" as the addressee, to be able to poll both renters and property owners.

Survey Implementation

Survey Administration

The survey was distributed via a postcard to property addresses (or mailing addresses for mountain properties). The postcards included a link and a QR code for respondents to follow to fill out the survey on their own internet-connected devices. Project management staff contact information was also provided for individuals to take the survey through a mailed hard copy or via the phone. To incentivize survey completion, the postcard and online survey introduction listed a \$50 Visa gift card, with 10 being awarded after the survey closed.

The postcards were mailed on March 27, 2025 (see Appendix A for a copy). The sampling period was 24 days from March 28, 2025, to April 20, 2025.

Limitations

While surveys can provide a cost-efficient way to communicate and gather input from residents, they are not perfect tools and not equivalent to community engagement. Bias can occur in many stages of surveying – from design to responses to data analysis. This study has limitations to consider when interpreting the results.

Potential Limitations and Errors

- Sample Frame Error A sampling frame error occurs when the subpopulation selected to sample does not represent the entire population. In this study, the survey was sent to property addresses in Boulder County, including both homeowners and renters, but missed the portion of the population that may be unhoused, or living in an alternative housing situation like in a hotel.
- Measurement Error As with any survey, there is the potential of a measurement error
 due to having a respondent answer a question inaccurately or imprecisely. As much as
 possible, questions were tested internally to identify inconsistences and errors prior to
 mailing the survey.
- Nonresponse Error Nonresponse errors happen when a significant number of the
 people in the survey sample do not respond to a survey <u>and</u> they have different
 characteristics from those who do respond. The response rate for the survey was ~10%,
 meaning 90% of the sampling frame chose not to answer the survey.

Data Processing

Prior to analyzing the survey data, the data was reviewed for duplications and completeness. Both reported property addresses and respondents' devices' IP addresses were checked for duplicates to ensure survey fairness, ensuring people were not taking the survey multiple times or multiple responses from one household. To protect confidentiality and anonymity, IP address was not used in any other data analysis capacity. Property addresses were also only analyzed at the municipality level, later in the Results section.

Since the first three survey questions were about language preference and eligibility (address and age), survey respondents that did not complete at least the fourth question, were considered too incomplete to include in the study. These incomplete responses with only 1-3 questions and duplicates were removed from the final data set.

Results

The postcards with the survey link were mailed to 5,000 addresses, with 170 failed deliveries, for a delivery rate of 96.6%. Of the 4,830 successfully delivered, 481 responses were deemed valid and complete enough for inclusion in the analysis, with 463 respondents filling out the entire survey. This equates to a 10.0% response rate. Based on this response rate, these results are statistically significant for the Boulder County population of ~330,000 residents, with a confidence level of 95% and margin of error of +/- 5%. Meaning that we are confident that these results are not due to chance.

The survey results below are organized by topic, rather than question number. The question numbers based on the survey order, without any skip logic.^a Percentages in tables and charts may not add to 100% due to rounding. For questions where respondents could select more than one answer the percentages will not add up to 100%. This is because the percentages represent the number of respondents that selected an answer divided by the total number of respondents for the question.

Demographics

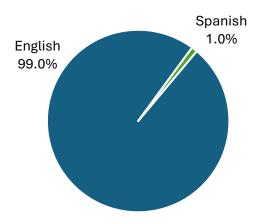
Demographic questions help us understand how representative survey respondents may be of target population at large. Questions on age and address had dual purposes in providing representation data as well as establishing survey participation eligibility.

Question 1: What language would you like to take the survey in? | ¿En qué idioma le gustaría realizar la encuesta?

The postcard survey provided Spanish and English versions. The first question bifurcated the survey to an English or Spanish version based on the first question selection.

^a Skip logic is where a survey moves respondent ahead in the survey based on a response; for this survey skip logic was only used to skip some of the finished compost questions for respondents without managed outdoor areas.

Figure 2: Survey Language Selected (n=481)



Analysis: Five respondents or 1% selected to answer the survey in Spanish, with most respondents selecting English (476). According to the U.S. Census American Community Survey, 3.6% of county residents speak English less than 'very well', which is how the U.S. Census determines non-English speakers. This underrepresentation could be because of several reasons: a) the non-English speakers, speak a language other than Spanish, b) the postcards were randomly distributed and did not reach as many non-English speakers, or c) non-English speakers responded to the survey at a lower rate than English speakers, or d) some combination of the above factors. Spanish was offered because it is the most common language spoken in Boulder County outside of English. Future surveys, focus groups or other related work could look to expand materials to more languages.

Question 2: Please enter the address where you received this postcard. This address must match our list of surveyed addresses.

To ensure the survey was not taken multiple times by the same household, by out-of-county residents, or other surveying issues, the survey asked respondents to enter the address where they received the postcard.

Figure 3: Survey Response Rate by Location (n= 479)

A. Boulder County Communities	B. Popula- tion ⁶	C. Population Percentage	D. Addresses Surveyed	E. Survey Responses	F. Response Rate (Column D / Column E)	G. Location Proportion (Column E / Total Responses)
Boulder	105,650	32.27%	1,613	159	9.9%	33.19%
Erie (Part)	14,809	4.52%	226	20	8.8%	4.18%
Jamestown	250	0.08%	4	0	0.0%	0.00%
Lafayette	30,890	9.43%	472	32	6.8%	6.68%
Longmont (Part)	98,498	30.08%	1,504	147	9.8%	30.69%
Louisville	19,394	5.92%	296	40	13.5%	8.35%
Lyons	2,145	0.66%	33	0	0.0%	0.00%
Nederland	1,478	0.45%	23	1	4.3%	0.21%
Superior (Part)	12,240	3.74%	187	13	7.0%	2.71%
Ward	128	0.04%	2	0	0.0%	0.00%
Boulder County	41,942	12.81%	640	67	10.5%	13.99%
TOTAL	327,424	100%	5,000	479	N/A	100%

Note: Two addresses were incorrectly recorded from phone survey and unable to match by location, resulting in a total of 479 responses for this location question.

Analysis: Respondents' street address locations were analyzed to understand the geographic representative across the county. The highest response rates were from Louisville (13.5%), unincorporated Boulder County (10.5%), Boulder (9.9%) and Longmont (9.8%). Three locations had zero responses – Jamestown, Lyons, and Ward. Although, they were not within town limits, there were nine responses from the mountain areas, including one just outside of Lyons, which counted under the unincorporated Boulder County category. The survey responses were fairly well representative from across the county. The largest differences were in representation, by percentage, (comparing Figure 3 Column C and Column G), were in:

- Lafayette 9.4% of the population, 6.7% of the survey responses, difference of 2.7%
- Louisville 5.9% population, 8.4% survey responses, difference of 2.4%
- Boulder County 12.8% population, 14.0% survey responses, difference of 1.2%

Overall, the survey appeared to get a wide sampling of responses from across the county, as opposed to responses primarily being from one city or town.

Question 3: What is your age? Respondents must be 18 years or older.

Survey respondents were asked about their age to determine eligibility to participate in the survey. Respondents that selected 'Under 18' were automatically exited out of the survey. There were seven age groups to select from in a drop-down format, including 'Under 18'.

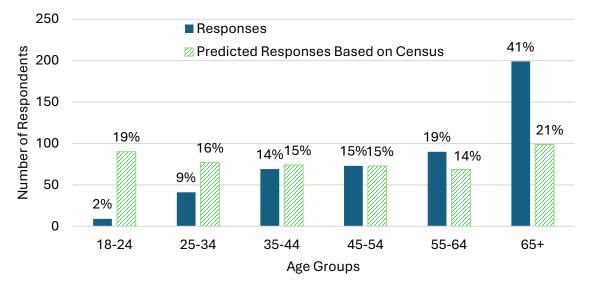


Figure 4: Survey Respondents Age Groups (n= 481)

Analysis: Figure 4 shows the age groups of the survey respondents compared with the expected survey responses based on U.S. Census data for Boulder County.⁷ (Note: The US Census data was adjusted to account for the non-eligible under 18-year old category.) For age groups 35-44, 45-54, 55-64, the number of respondents aligned with what we would have expected for a representative distribution based on the census. Based on the census data, the 65+ year age category is overrepresented in the survey responses with 18-34 underrepresented.

Question 18: How would you describe your race?

The survey asked respondents about their race. The question provided nine options and allowed for participant to select more than one answer. The choices included 'I prefer not to answer', and 'I prefer to self-describe' with a short text box.

Figure	5.	Survey	Resnon	dents	Race	(n = 464)
IIguit	J.	Julyev	LICODUL	uciilo	Nace	111-4041

Race	Responses	Percentage of Respondents
White	380	81.9%
I prefer not to answer	53	11.4%
Asian or Asian American	17	3.7%
Hispanic or Latino	10	2.2%
I prefer to self-describe	9	1.9%
Middle Eastern or North African	4	0.9%
American Indian or Alaska Native	3	0.6%
Black or African American	1	0.2%
Native Hawaiian or Pacific Islander	0	0.0%

Analysis: Of the respondents for this question, 380 or 81.9% selected White for race, with 372 of these respondents only selecting White (80.2%). Comparing to the U.S. Census data, White alone, Non-Hispanic or Latino, residents are estimated to make up 74.5% of county's population. The census data does not provide an exact comparison as the census survey asks respondents about being Hispanic or Latino as a separate question. The next top selections were 'I prefer not to answer' (11.4%), Asian or Asian American (3.7%) and Hispanic or Latino (2.2%).

Question 19: Including yourself, how many people live in your household?

Survey respondents were asked about their household size in a drop-down question. This question was optional.

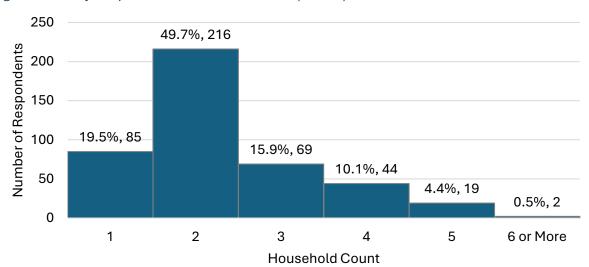


Figure 6: Survey Respondents Household Count (n= 435)

Analysis: Household size was asked to better understand how many people were represented by the survey, which was about 1,007 people. About 50% of respondents that answered this question, reported that they were in a two-person household. The next most common answer was single person household (19.5%) and three-person household (15.9%). About 15% of households that responded have four or more people. The weighted average household size was 2.31 people per household. This is aligned with the U.S. Census estimates which estimated 2.28 people per household (+/- 0.03 margin of error).

Question 20: What best describes your home?

Survey respondents were asked about their home type with a drop-down question to select one answer. Response to this question was optional.

Figure 7: Survey Respondents Housing Type (n= 463)

Housing Type	Responses	Percentage of Respondents
Single family home	386	83.4%
Duplex or townhome	34	7.3%
Condo or apartment complex with 2 to 7 units	10	2.2%
Condo or apartment complex with 8 or more units	30	6.5%
RV, trailer, or mobile home	3	0.6%

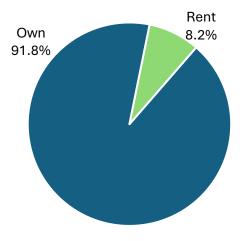
Analysis: The majority of respondents selected single family home as their home type (83.4%). However, based on the U.S. Census, single unit homes, attached or detached, only make up about 65% of the housing units in Boulder County. 10 Respondents from single unit households are overrepresented in the survey, while respondents from condos, apartments, mobile homes and other multi-unit housing structures are underrepresented.

Housing structure is important to consider in understanding access and barriers to organics diversion services. Multi-unit housing structures often have different challenges than those associated with single-unit houses. For example, often a Homeowners' Association (HOA) will contract with a hauler for consolidated collection, which will dictate whether or not a group of households has access to organics collection. Apartments can have different challenges with space for bins or dumpsters. Future surveys or focus groups could look to target increasing participation and listening sessions with residents in multi-unit structures to ensure better representation.

Question 21: Do you rent or own the home you currently live in?

Survey respondents were asked about whether they rented or owned their current home in a drop-down question. Response to this question was optional.

Figure 8: Survey Respondents Housing Ownership (n= 463)



Analysis: Most respondents indicated that they own their current residence (91.8%). Compared with the U.S. Census data for Boulder County, about 61.2% of occupied housing structures are owner-occupied compared to 38.8% renter occupied. This could be due to several reasons including renters responding at a lower rate, and the randomized addresses not capturing a representative portion of renters. While the addresses for this survey were stratified for location based on population size, ownership vs. rental rates are likely variable by location. For example, City of Boulder has a higher population of students with the University of Colorado located in the city, and therefore rental rate could be higher in the City of Boulder than other areas. Similarly to housing units / structures, residents who rent their property may have different challenges than property owners. For example, renters may have less control of collection services, or use of finished compost.

Organics Generation

After the language and eligibility questions, the next question asked about organic materials generated per household. The introduction text provided the following terms in plain language:

- "Organic materials are from natural sources including things like food scraps and yard trimmings.
- **Composting** is the controlled process where organics breakdown.
- **Finished compost** is the end product of the composting process. Finished compost is a soil product that is applied to land to improve soil health, hold water and help plants grow."

These terms were distinguished in the survey due to the confusion around the terms compost and composting. Erroneously, sometimes the collection of organics is referred to as 'composting' and the material placed by a resident or business into the bin is called 'compost'. The term composting is specific to a managed biological process where finished compost is the end product. 'Organic materials or organics' are the materials placed in a collection bin and added to the start of the composting process.

Question 4: In an average month, what organic materials does your household produce?

Survey respondents were asked about organic materials generated by their household. The question allowed for one or more selections of five different material categories and an 'Other' with a short text response. The categories and examples were as follows:

- Agricultural Waste Materials hay, straw, crop residue, manure
- **Certified "Compostable" Packaging** ('plastic' and paper products that are labeled as compostable) coffee cups, take-out packaging, utensils made form plant-based materials
- Food Scraps like meat scraps, vegetable peels, expired processed food etc.
- Paper / Fiber Products tea bags, coffee filters, paper towels, pizza boxes
- Yard / Garden Trimmings leaves, branches, grass, brush

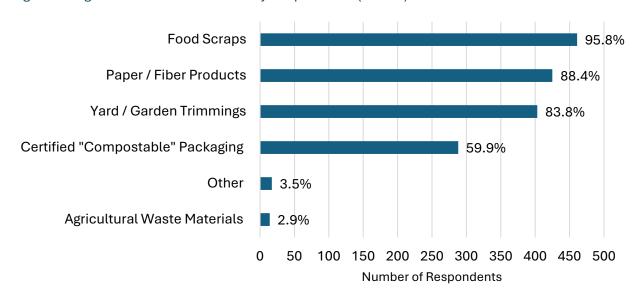


Figure 9: Organic Materials Generated by Respondents (n= 481)

Analysis: The majority of households reported generating food scraps (95.8%), paper products (88.4%) and yard trimmings (83.8%). The next most common materials reported were certified 'compostable' packaging (59.9%).

Agricultural waste materials (3.5%) were generated by a small proportion of respondents. This makes sense as the survey was residentially focused and sent to address in municipalities and unincorporated county areas. Future surveys and listening sessions should be focused on agricultural producers and businesses in the county to better understand both waste stream needs (i.e. types and quantities of materials generated) and finished compost demand (i.e. quality, types, willingness-to-pay for materials).

Other materials (2.9%) represented a minority of respondents' materials. Other materials listed in the text box include paper products (5), pet / human feces (3), food scraps (2), garden trimmings (2), cat litter (1), wood scraps (1), certified compostable products (1), batteries (1) and an 'I don't know' (1).

The 2019 Boulder County Countywide Waste Composition Study reflects similar patterns when looking at volume of organic material disposed of from the residential sector and provides additional context for this survey question.¹² Figure 10 provides the estimated organics disposed of in the trash stream annually by the residential sector.

Figure 10: Organic Materials Disposed of by Boulder County Residents

Waste Composition Material	Percentage	Confidence Interval	Tons
Food Waste	16.5%	2.2%	15,226
Compostable Paper	6.7%	0.6%	6,179
Other Organics ^b	5.1%	2.1%	4,656
Yard Waste, Branches, Limbs, Stumps ^c	4.9%	2.9%	4,564
BPI Certified Compostables ^d	0.3%	0.6%	304
Total Organics Tons Disposed			30,929
	Total Residential	Tons Disposed	92,072

There are some important limitations and caveats to consider when comparing the composition data vs. survey data:

- Survey answers reflect what respondents think they are generating
- Survey doesn't ask how much of each material each household is generating; volumes will vary by material and by household. A main reason the survey did not ask respondents about volumes of materials was because of the existing waste composition data.
- Composition study is looking at disposal (what enters the trash stream) vs. generation (everything created regardless of which bin it enters at the end-of-life – trash, recycling or organics).

Collection

The next set of questions asked respondents about how their trash, recyclables and organic materials are managed. The questions allowed participants to select multiple options as one could have collection services and also self-haul materials to facilities. In the case of organics, residents could also manage materials in backyard composting piles, with worm composting or another composting method.

There are several forms of collection service:

- **Open market** is where a resident or business contracts directly with a hauler of their choice for service.
- **Municipal hauling** is where municipal staff and trucks provide collection service to residents.
- Contracted or franchised collection is where a local government hires a hauling company for collection services.

^b Other Organics is defined by the composition study as "Organic material that doesn't fit into the categories specified above, and items that are primarily organic but include other materials such as plastic or metal. Examples include cotton balls, hair, Q-tips, wax, soap, kitty litter, animal feces, and animal carcasses." While these materials may have organic elements, that does not necessarily mean they would be divertible or compostable.

^c Yard Waste and Branches, Limbs, Stumps categories combined for the purposes of this table.

^d <u>Biodegradable Products Institute (BPI)</u> is a popular certification company for compostable packaging.

Understanding residents access to curbside collection services can help Boulder County better understand if and where there might be gaps in services. For example, do residents that have access to curbside trash collection also have access to curbside organics collection?

Question 5: What best describes your TRASH collection service? (Select all that apply.)

Survey participants were asked to select all of the management options for their trash service.

Figure 11: Trash Collection Methods (n= 480)

Collection Method	Responses	Percentage of Respondents
I contract directly with a hauler for curbside collection	121	25.2%
My city provides curbside collection services through municipal staff or a contract with a hauler	252	52.5%
My landlord, property manager, or Homeowners' Association (HOA) contracts with a hauler	98	20.4%
I self-haul materials to a transfer station or landfill	24	5.0%
Not Sure	4	0.8%
Other (please specify)	4	0.8%

Analysis: The majority of respondents have curbside trash collection either through open market (25.2%), municipal run or municipal contracted service (52.5%) or through a property owner contracting with a hauler (20.4%). Only 11 out of the 24 respondents chose self-haul as their sole collection method (or 2.3% of the total number of respondents). This data suggests that the majority of residents have access to curbside trash collection, although this does not address other barriers to using this service (accessibility, cost, frequency of collection etc.)

Other and 'Not Sure' were selected by less than 2% of the respondents. Four respondents selected 'Other', specifying 'recycle' (1), 'I sometimes haul to the recycling place (1)', 'landscaper removes yard waste' (1), and 'except for paper shredding' (1).

Question 6: What best describes your RECYCLABLES (cardboard, glass and plastic bottles, paper) collection service? (Select all that apply.)

Survey participants were asked to select all of the collection / management options for their recycling service. This question was optional.

Figure 12: Recycling Collection Methods (n= 479)

Collection Method	Responses	Percentage of Respondents
I contract directly with a hauler for curbside collection	116	24.2%
My city provides curbside collection services through municipal staff or a contract with a hauler	251	52.4%
My landlord, property manager, Homeowners' Association (HOA) contracts with a hauler	97	20.3%
I self-haul materials to a drop-off center or transfer station TO BE RECYCLED	73	15.2%

Collection Method	Responses	Percentage of Respondents
I self-haul materials to a transfer station or landfill TO BE TRASHED	5	1.0%
I don't have curbside recycling service and don't use a recycling drop-off. Recyclables go in my trash bin.	1	0.2%
Not Sure	2	0.4%
Other (please specify)	5	1.0%

Analysis: Similar to the trash collection question, the majority of respondents have curbside trash collection either through open market (24.2%), municipal run or municipal contracted service (52.4%) or through a property owner contracting with a hauler (20.3%).

A much higher proportion of respondents indicated that they self-haul recyclables (15.2% for recycling, 1.0% for landfilling) than self- haul trash. Of those respondents that indicated they self-haul materials TO BE RECYCLED, only 16 out of the total 73 selected self-haul as their sole collection method (or 3.3% of the total number of respondents).

This data suggests the majority of residents have access to curbside recycling collection and may be using recycling drop-offs as a supplementary method of recycling, like with excess materials from an event. Boulder County offers free recycling drop-offs in Nederland, Allenspark, Boulder, Niwot and Lyons, to boost recycling participation and material recovery. Six respondents reported either placing recyclables in their trash bin or self-hauled to be landfilled (1.2%).

Other and 'Not Sure' were selected by less than 2% of the respondents. All five respondents that selected 'Other' indicated that they use additional recycling services or drop-off locations for non-curbside materials or hard-to-recycle materials like foam or shredded paper.

Question 7: What best describes your ORGANICS (food and yard waste) collection service? (Select all that apply).

Survey participants were asked to select all of the collection / management options for their organic materials.

Figure 13: Organics Collection Methods (n= 480)

Collection Method	Responses	Percentage of Respondents
I contract directly with a hauler for curbside collection	104	21.7%
My city provides curbside collection services through municipal staff or a contract with a hauler	195	40.6%
My landlord, property manager, or Homeowners' Association (HOA) contracts with a hauler	58	12.1%
I self-haul materials to a drop-off center or transfer station TO BE COMPOSTED	30	6.3%
I self-haul materials to a transfer station or landfill TO BE TRASHED	7	1.5%
I don't have curbside organics collection service and don't drop-off material. Organics go in my trash bin.	68	14.2%

Collection Method	Responses	Percentage of Respondents
I manage materials in at home through a compost pile, worm bin, feeding to animals or other method	70	14.6%
Not Sure	4	0.8%
Other (please specify)	9	1.9%

Analysis: Curbside organics collection either through open market (21.7%), municipal run or municipal contracted service (40.6%), or through a property owner contracting with a hauler (12.1%) was the most common management method. However, the percentage of respondents with curbside collection (73.8%) was lower comparatively than the percentage with curbside trash (97.3%) or curbside recycling collection (96.0%).

Unlike recycling, organic waste materials can be managed effectively at home with backyard composting or similar methods. Managing materials on-site (14.6%) was the third most popular response. This was followed by placing organics in a curbside trash bin (14.2%), and self-hauling material TO BE COMPOSTED (6.3%).

Figure 14 further breaks out the data by management type and whether that management type is diverting or landfilling organics. Over 80% of respondents are diverting organics through one or more methods (82.9%). While this suggests that the majority of residents have access to and are diverting organics, this participation in diversion is significantly less compared to recycling. Only two respondents (0.2%) were not diverting recyclables through curbside recycling or self-haul, whereas 68 respondents (14.2%) are diverting organics. This may indicate a gap in collection service and organics drop-off infrastructure. Question 14 later in the Results section asks respondents about their largest challenges to organics diversion and includes options around access to services.

Figure 14: Organics Collection Methods (n= 480)

Organics Collection / Management	Responses	Percentage of Respondents
Organics Diverted	398	82.9%
Curbside Only	308	64.2%
Curbside & Additional Method	42	8.8%
At Home Management Only	37	7.7%
Self-Haul for Composting Only	9	1.9%
At Home & Self-Haul for Composting	2	0.4%
Organics NOT Diverted	68	14.2%
Into Trash Bin	62	12.9%
Self-Haul to Trash	6	1.3%
Diversion Unclear	14	2.9%
Mixed (Conflicting)	7	1.5%
Not Sure	4	0.8%
Other	3	0.6%
Total	480	100%

Finished Compost

Finished compost is the stabilized, mature end product of the composting process and is a beneficial soil amendment. To 'close the loop', organics need to be collected, processed, made into a finished product and applied to the land. The next series of questions asked respondents about yards, and use of soil products to better understand if respondents used or could use finished compost. The household market for finished compost is important as the 2012 Boulder County Compost Market Study found households in Boulder County were the fourth largest market for finished compost by estimated use with about 2,500 cubic yards used, following landscaping (36,000 – 56,000 cubic yards), agriculture (9,000 – 11,000 cubic yards), and local governments (~8,000 cubic yards).¹³

Question 8: Do you have a yard, garden or acreage?

Survey respondents were asked about whether they had a yard, garden or acreage in a select one drop down format. If respondents selected 'No – I don't have an outdoor space that I manage', the survey skipped the next three questions.

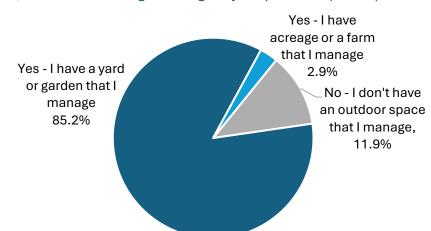


Figure 15: Yards, Garden and Acreages Managed by Respondents (n= 480)

Analysis: Nearly 9 out of 10 households responded that they had a yard or garden (85.2%) or a farm or acreage that they manage (2.9%). This represents a large share of potential households that could use finished compost directly on their properties. Households without an outdoor space they manage (11.9%) may still have access to outdoor areas like common green spaces. These areas may be controlled by property owners or HOAs and/or managed entirely through landscaping companies. These respondents may be able to influence landscaping choices like adding finished compost into flower beds or turf but there may be more limitations or challenges.

Question 9: Which of the following soil amendment products do you currently use on your property?

Survey respondents that had an outdoor space were asked about what soil amendment products they used. The list included six commonly used soil products, including finished compost, an 'Other' option with a short text box and a none of the above option. Respondents could select all that applied.

Figure 16: Soil Amendment Products Used (n= 421)

Soil Amendment Products	Responses	Percentage of Respondents
Mulch	296	70.3%
Potting Soil	247	58.7%
Finished Compost	212	50.4%
Soil Blends	187	44.4%
Manure	80	19.0%
Peat Moss	64	15.2%
None of the above	38	9.0%
Other (please specify)	14	3.3%

Analysis: The top three products used by respondents were mulch (70.4%), potting soil (58.7%) and finished compost (50.4%). Having over half of the households with an outdoor area using finished compost already is a positive indicator for the household finished compost market. It could also indicate there may be room for market expansion. The survey was not specific to finished compost, otherwise additional questions about frequency of use, preferences, how much is paid for products, willingness to pay and sourcing could have been asked. The county could do a follow-up survey or focus groups, if these questions become more pertinent with the potential advancement of a compost facility.

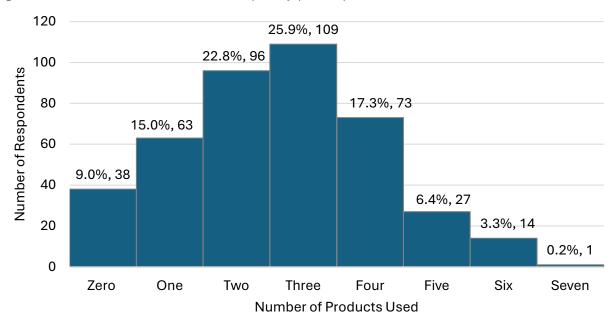


Figure 17: Soil Amendment Products Frequency (n= 421)

Figure 17 shows the number of products used frequency, as respondents could select multiple products. The average number of products used were 2.6. A diversity of products used makes sense as some of these products have overlapping properties (like soil amended) and some have more specialized properties or uses. For example, manure, peat moss and finished compost could be used to amend soils and provide minerals and therefore product substitution may make sense. Alternatively, mulch can be used in a decorative capacity with limited natural product alternatives.

Question 10: How much soil amendment products do you use annually?

Respondents that had an outdoor space were asked to estimate the amount of total soil products that they used annually. The question described a bag as an average 20–50-quart bag of soil product sold at a garden center or hardware store. Respondents could select one of the following choices: 1-5 bags, 5-10 bags, 10+ bags / half a truck load (0.5 cubic yards), one truck load (1 cubic yard), more than one truck load (3+ cubic yards).

Figure 18:	Quantity	of Soil A	mendment Prod	ducts Used	(n = 419)
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Quantity of Soil Products	Responses	Percentage of Respondents
I don't use soil products	54	12.9%
Less than 0.25 cubic yards	189	45.1%
0.25 to 0.49 cubic yards	100	23.9%
0.5 to 0.99 cubic yards	48	11.5%
1 to 3 cubic yards	20	4.8%
More than 3 cubic yards	8	1.9%

Analysis: Respondents were asked about the amount of soil products that they used on an annual basis. Figure 18 shows the results of this question with the labels converted to rough estimates in cubic yards for consistency of units. Estimating soil product usage can be difficult because the bagged products can come in cubic feet, quarts and/or gallons. Bulk soil products are sold by cubic yard, pounds or truckload. Soil products will also have different densities, for example a large chip sized mulch will typically be much lighter than a denser, higher moisture finished compost product. While this question has some inherent limitations in estimating amounts in products used, it provides some directional insight into quantities used. Future surveys or focus groups could look to further analysis amount per product used.

About 70% of respondents use 10 bags or less of soil products, with the most frequent usage at 1-5 bags of soil products or estimated at less than 0.25 cubic yards (45.1%). About 18% of respondents are receiving a half a truck full (0.5 cubic yards to 0.99 cubic yards) or more of soil products. Finally, 54 respondents selected that they do not use soil products (12.9%), 19 of which selected soil products in the previous question; suggesting some question confusion or response inaccuracy.

Question 11: If you don't already use finished compost on your property, what are your barriers to using it?

Survey respondents that had an outdoor space and did not select finished compost as one of the products they currently use, were asked about barriers to use. The question allowed respondents to select all barriers, including an 'Other' box.

Figure 19: Barriers to Use of F	Finished Compo	ost (n= 194)
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Barriers to Use	Responses	Percentage of Respondents
I don't know how or when to use it	72	37.1%
I'm not sure where to get it	69	35.6%
I don't already use finished compost but I'm interested in trying it	60	30.9%
Other (please specify)	43	22.2%
It's too expensive	27	13.9%
I worry about weed seeds or weed growth	21	10.8%
I worry about contamination in the finished compost	16	8.2%
I've tried it before and didn't like it	6	3.1%
I worry about it harming plants	2	1.0%

Analysis: The top two concerns were around uncertainty; the first on how or when to apply finished compost (37.1%), and the second on where to source it (35.6%). Additionally, almost a third of respondents did not already use the material but were interested in trying it. Consumer education around benefits, applications, and suppliers as well as compost giveaways or other incentive programs could be beneficial in overcoming these challenges. Interestingly, expensiveness of the material was only selected by about 14% of respondents. Willingness-to-pay questions were not asked in this survey but could provide more insight into what price point is considered too expensive for household consumers.

Over one-fifth of respondents selected 'Other', filling out an accompanying short text answer. The majority of these responses were a version of not needing or wanting to use finished compost (18 responses). This was followed by accessibility limitations – too much time, effort, or lack of transportation (7). The rest of the comments are summarized as follows: attracts animals or pets (5), miscellaneous (5), use on-site products instead (4), unclear on definition of finished compost (3), and concerns about product quality (1).

Awareness, Beliefs, & Challenges

The next questions were asked of all respondents to better understand awareness, beliefs and challenges related to organics diversion and composting

Question 12: Please indicate your level of agreement with the following statements.

Survey respondents were asked about their level of agreement on statements around composting, as well as two statements around backyard composting. Statement order was randomized for respondents.

Figure 20: Composting Awareness & Behaviors Statements (n= 469 to 472)

			•	,		
	Number of Responses Percentage					
Statements	Strongly Disagree	Disagree	Agree	Strongly Agree	N/A	Total
I know what materials are allowed in my organics bin (n=472)	17 3.6%	35 7.4%	163 34.5%	201 42.6%	56 11.9%	472 100%
I know what happens to my organics after my material is collected (n=469)	73 15.6%	154 32.8%	142 30.3%	48 10.2%	52 11.1%	469 100%
I compost everything that I can (n=469)	47 10.0%	86 18.3%	103 22.0%	200 42.6%	33 7.0%	469 100%
I have the time to compost in my yard (n=469)	83 17.7%	129 27.5%	138 29.4%	70 14.9%	49 10.4%	469 100%
I have the space to compost in my yard (n=469)	73 15.6%	92 19.6%	169 36.0%	95 20.3%	40 8.5%	469 100%

Analysis: Overall, there was variability in level of agreement with the statements pointing to gaps in understanding and some challenges.

Awareness: Over 75% of households responded that they knew what was allowed in their organics bin (Agree 34.5%, Strongly Agree 42.6%). The next largest portion of respondents chose 'Not Applicable to Me' (11.9%), possibly because they do not have organics collection. Finally, about 11% of respondents indicated that they did not know what is allowed in their organics bin (Disagree 7.4%, Strongly Disagree 3.6%).

Significantly fewer respondents knew what happened to their organics after the material is collected. Almost 50% of respondents selected that they disagreed with the statement (Disagree 32.8%, Strongly Disagree 15.6%). About 40% agreed with the statement (Agree 30.3%, Strongly Agree 10.2%). The remaining 11% chose 'Not Applicable to Me.'

Understanding what residents know is important in thinking about future programming and educational campaigns. This data signals that there may be a significant gap in understanding the composting process after collection. Additional education on the composting process may inform residents and help with issues like contamination. (For example, understanding the composting process could help explain why contamination is difficult to manage and potentially influence future behaviors). However, awareness is also not reflective of behavior. An individual may know what to put into a bin and still put the wrong things in the bin out of convenience, cost, or other factors.

Behavior: About 65% of respondents agreed with the statement "I compost everything that I can" (Agree 22%, Strongly Agree 42.6%) with about 28% disagreeing (Disagree 18.3%, Strongly Disagree 10%). A later survey question asked about respondents' largest challenges with diverting organics. Future surveys, focus groups or other outreach could follow-up to ask more questions around why people are not diverting everything.

Backyard Composting: While about 56% of respondents reported having space in their yard to compost (36.0% Agree, 20.3% Strongly Agree), people were split on whether they had time to compost in their yard. About 44% of people agreed or strongly agreed that they had time, while about 45% disagreed or strongly disagreed. Boulder County provides free backyard composting classes but could look at additional resources and programs to support those respondents that both had time and space to compost in their backyard.

Question 13: Please indicate your level of agreement with the following statements.

Similar to question 12, survey respondents were asked about their level of agreement on statements around composting related beliefs. Two of the statements focused on Boulder County's role in increasing composting. Statements were presented in a random order for each respondent. Two statements were added in the negative, to see if survey respondents were tracking the survey and to reduce acquiescence bias (or the tendency to agree with a statement when in doubt). Unlike question 12, there was no "Not Applicable" option.

Figure 21: Composting Beliefs Statements (n= 463 to 469)

	Number of Responses Percentage				
Statements	Strongly Disagree	Disagree	Agree	Strongly Agree	Total
Composting is a waste of time (n=468)	295	147	20	6	468
	63.0%	31.4%	4.3%	1.3%	100%
Composting is a waste of money (n=463)	273	166	17	7	463
	59.0%	35.9%	3.7%	1.5%	100%
Composting helps save space in the landfill (n=469)	9	10	186	264	469
	1.9%	2.1%	39.7%	56.3%	100%
Composting helps to conserve natural resources for the future (n=467)	10	15	209	233	467
	2.1%	3.2%	44.8%	49.9%	100%
Boulder County should increase access to organics diversion options (n=464)	14	40	219	191	464
	3.0%	9.6%	47.2%	41.2%	100%
Boulder County should invest taxpayer dollars to support composting infrastructure (n=467)	27	42	213	185	467
	5.8%	9.0%	45.6%	39.6%	100%

Analysis: Overall, there was a high level of affirmation from respondents on statements highlighting the different benefits of composting.

<u>Benefits</u>: About 95% of respondents indicated that composting as a process was positive in relation to costs, time, space in landfills and conservation of natural resources.

- **Cost** 94.8% strongly disagreed or disagreed with the statement that composting was a *waste* of money.
- **Time** 94.4% strongly disagreed or disagreed with the statement that composting was a *waste* of time.
- **Space in Landfill** 95.9% strongly agreed or agreed with the statement that composting helps save space in the landfill.
- **Conserving Natural Resource** 95.9% strongly agreed or agreed with that statement that composting helps to conserve natural resources for the future.

<u>Boulder County Role</u>: Similarly, respondents indicated a high level of affirmation for statements on the role of Boulder County in supporting composting efforts.

- "Boulder County should increase access to organics diversion options" 88.4% of respondents strongly agreed or agreed with this statement.
- "Boulder County should invest taxpayer dollars to support composting infrastructure" – 85.2% of respondents strongly agreed or agreed with this statement.

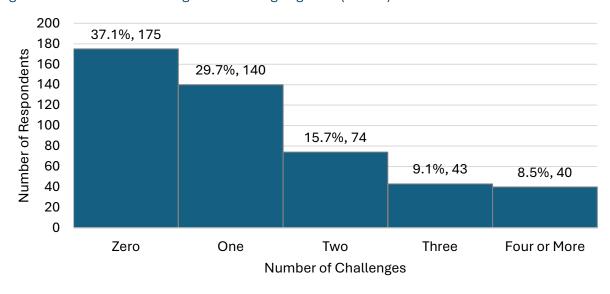
Question 14: What are your largest challenges to diverting food scraps and yard trimmings from the trash / landfill? (Select all that apply)

Respondents were asked about challenges to diverting organics. Multiple choice answers were diverse to cover backyard composting, collection issues, and general material separation issues. Choice order was randomized. Respondents could select all answers that applied.

Figure 22: Challenges in Diverting Organics (n= 472)

Challenges in Diverting Organics	Responses	Percentage of Respondents
No barriers or challenges to composting, I compost everything I can	213	45.1%
Other (please specify)	88	18.6%
The smell	81	17.2%
My bin or pile attracts flies, wildlife or pests	75	15.9%
I don't generate enough material to be worth it	68	14.4%
I do not have room to store extra containers	43	9.1%
I am not sure what to compost	39	8.3%
Collection is too expensive	36	7.6%
Service is not available at my house/apartment	33	7.0%
It takes too much time to separate materials	29	6.1%
My property manager / landlord does not provide the service	29	6.1%
I am not sure where to bring my organics	28	5.9%
Service isn't frequent enough	28	5.9%
Drop-offs for yard waste are too far from my house	22	4.7%
Curbside service is inconvenient	6	1.3%

Figure 23: Number of Challenges in Diverting Organics (n= 472)



Analysis: The most common response selected was 'No barriers or challenges, I compost everything I can', selected by 45.1% of respondents. This percentage of people without barriers / challenges drops to 37.1% when isolating respondents that **only** selected 'No barriers...' (as seen in Figure 23). Two-thirds of respondents had zero to only one barrier or challenge.

The second top barrier, reported by about one in five respondents was 'Other' (18.6%). About 40% of these comments had some reference to materials not being accepted, including restrictions to biobags, tissues, paper towels, paper, or compostable packaging. Many of the 'Other' comments had variations on the listed answers – pests (10), HOA / property owner challenges (5), and not enough material (3). For the full list of 'Other' responses, see Appendix C.

The next three barriers, all with over 10% of respondents selecting: the smell (17.2%), bin or pile attracting flies, wildlife or pests (15.9%), and not generating enough material (14.4%). These are the top barriers / challenges reported by respondents that disagreed with the statement 'I compost everything that I can' in question 12 (133 respondents). For this sub-group of respondents, their top challenges were not generating enough material (35.3%), the smell (30.1%), and bin or pile attracting flies, wildlife or pests (23.3%).

Two barriers are related to potential nuisances' factors when working with decomposing food scraps. These challenges may be mitigated or managed with education on best management practices – like more frequent emptying bin or collection service, freezing food scraps, and using wildlife proof containers. However, not every solution will work for every situation.

Not generating enough material in an individual household was a barrier . Organic materials have drastically different densities. One household that uses their curbside toter for yard trimmings and food scraps might have an overflowing bin in the spring and fall with branches and leaves. On the other hand, a household only generating food scraps may feel like they have an 'empty' bin.

Compost Facility

The questions in this section were aimed at understanding a few high-level aspects of residential priorities interests, and concerns of a local organics processing or compost facility. The survey questions were limited to conceptual questions as a site has not been chosen.

The survey introduction text explained the following:

"Boulder County is evaluating developing organics processing infrastructure. The county has not selected a site location. The following questions will help the county understand residents' priorities, interests and potential concerns about a facility."

The results from these questions are to help provide insights and information for future county decision making. However, this data set is not intended to replace community engagement and outreach.

Question 15: What are the most important materials for a compost facility to accept? Please rank from most important (1) to least important (5).

The survey asked all respondents to rank five different material types based on their importance to be accepted. The choice order was randomized for each participant. The choices were:

- Food Scraps like meat scraps, vegetable peels, expired processed foods etc.
- Yard / Garden Trimmings leaves, branches, grass, brush
- Compostable Paper / Fiber Products tea bags, coffee filters, paper towels, pizza boxes
- Agricultural Waste Materials hay, straw, crop residue, manure
- Certified Compostable Packaging ('plastic' and paper products that are labeled as compostable) - coffee cups, take-out packaging, utensils

Figure 24: Compost Facility Materials for Acceptance Rankings (n= 464)

	Rankings – 1 Most Important, 5 Least Important Number of Responses, Percentage				
Materials for Acceptance	1	2	3	4	5
Food Scraps	198	117	79	41	29
	42.7%	25.2%	17.0%	8.8%	6.3%
Yard / Garden Trimmings	161	153	63	63	24
	34.7%	33.0%	13.6%	13.6%	5.2%
Compostable Paper / Fiber	29	90	154	153	38
Products	6.3%	19.4%	33.2%	33.0%	8.2%
Certified Compostable	38	58	90	134	144
Packaging	8.2%	12.5%	19.4%	28.9%	31.0%
Agricultural Waste Materials	38	46	78	73	229
	8.2%	9.9%	16.8%	15.7%	49.4%

Analysis: A weighted score was calculated from the respondent rankings with the most important materials scoring closer to 1 and the least important closer to 5.° Food scraps was the most important material for a facility to accept (2.11 score, 42.7% of respondents ranking food scraps a 1). Yard trimmings was the second most important material (2.22, 34.7% ranked them a 1). This result makes sense as not everyone has a yard or garden that generates yard trimmings, but vast majority of people will generate food scraps. The next two materials were paper / fiber products (3.17), followed by certified compostable packaging (3.62).

The materials respondents prioritized for a facility to accept align closely with what they reported generating in question four. Figure 25 below compares what organics respondents generated to what they prioritized. The only difference is a slightly higher percentage of respondents reported generating paper / fiber products than yard waste (4.6%), making paper products the second most generated material, while prioritized as the third most important materials.

 $^{^{\}circ}$ Weighted Score example calculation. For food scrap = (1 rank * 198 respondents selected food scraps as a 1) +(2 rank * 117 respondents) + (3 rank * 79 respondents) + (4 rank * 41 respondents) +(5 rank * 29 respondents) = 978 weight scored / 464 total number of respondents for the question = 2.11 weighted score.

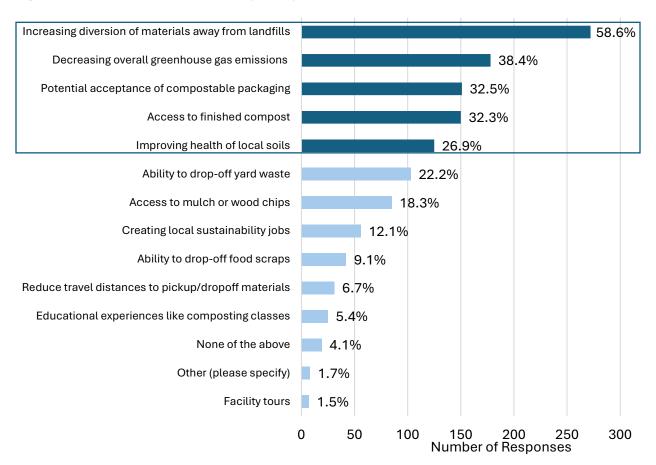
Figure 25: Materials for Acceptance Ranking vs. Generation (n= 464 to 481)

	Question 15 – Ranking (n=464)		Question 4 – (n = -	
Materials	Weighted Score	Collective Ranking	Percentage of Responses	Collective Ranking
Food Scraps	2.11	1	95.8%	1
Yard / Garden Trimmings	2.22	2	83.8%	3
Compostable Paper / Fiber Products	3.17	3	88.4%	2
Certified Compostable Packaging	3.62	4	59.9%	4
Agricultural Waste Materials	3.88	5	2.9%	5

Question 16: What interests you most about a local composting facility? Select up to three answers.

All respondents were asked what interests them about a local composting facility from a list of potential benefits and opportunities. Respondents could select up to three answers or none of the above. The choice order was randomized for each participant.

Figure 26: Compost Facility Interests (n=464)



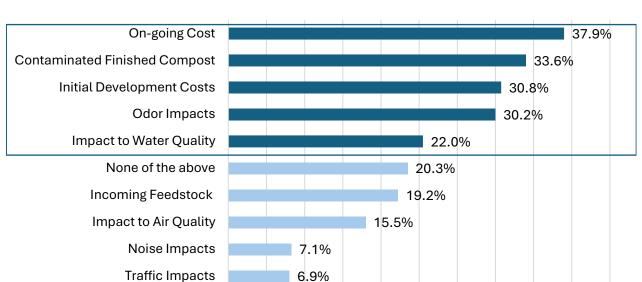
Analysis: The top five interests are highlighted in Figure 26. The top two answers selected are related to potential environmental benefits of a compost facility. Almost 60% of people chose increasing material diversion from the landfills as one of their interests (58.6%). The second most selected interest was decreasing greenhouse gases emissions (38.4%). Another environmental benefit that placed in the top five was improving health of local soils (26.9%), which is an indirect benefit of finished compost production.

The third highest rated interest was the potential acceptance of compostable packaging with about a third of respondents selecting this answer (32.5%). Material acceptance was a common theme in question 14 about diversion challenges; due to a private compost facility changing acceptance guidelines in 2023, residents are no longer allowed to put things like coffee filter, tea bags, paper towels and compostable packaging into their bin. About a third of respondents also selected access to finished compost (32.3%). Residents using finished compost locally would help 'close the loop' on organic material.

The facility interests / benefits are only potentials at this stage. More research and project development needs to be conducted to understand the scope and scale of the environmental benefits. Additional project work on operations and sites will provide more details on material acceptance, access to finished compost and other services.

Question 17: What considerations are you most concerned about when thinking about a local composting facility? Select up to three answers.

All survey respondents were asked about potential facility concerns and impacts, with nine impacts to choose from. Respondents could select up to three answers or none of the above. Choice order was randomized for this question.



0

20

40

100

Number of Responses

120

140

160

Figure 27: Compost Facility Concerns (n=464)

180 200

Analysis: The top five interests are highlighted in Figure 27. Both facility costs placed in the top five selected answers. On-going costs was the top selected concern (37.9%) while initial development costs was the third most selected concern (30.8%). Concerns about cost may make sense at this phase, where a facility is more conceptual.

Contaminated finished compost was the second most common concern with about a third of respondents selecting it (33.6%). In the previous question, about a third of respondents selecting 'Access to finished compost' as one of their interests (32.3%). One interpretation is that respondents are interested in using finished compost but want a quality or low-contamination material.

The two environmental / site area impacts in the top answers were odor impacts (30.2%) and impact to water quality (22.0%). A compost facility needs to meet all local and state regulations and permitting requirements which include controls, measures and monitoring of site impacts like odor and stormwater quality. Proper site design and best management practices can reduce and mitigate impacts. However, it is useful to know that community members may be concerned about these site impacts, helping to inform design and project communications.

Additionally, one in five survey respondents for this question indicated that none of these issues were concerns (20.3%). This could because they either do not have significant concerns about a local compost facility or they had concerns that were not listed in the choices. Future surveys or focus groups could ask further questions to better understand other concerns, the level of concern for this topics, and other questions.

The question was limited in scope to ask about nine different impacts / concerns. These choices do not reflect all the potential concerns of a facility. However, it does provide some insight into what residents may be concerned about, which can help the county as project development work continues.

Comments

Question 23: Is there anything else you would like to share with us about composting or a local compost facility?

The survey provided a text box to provide any comments, questions or concerns. Response was optional for this question. The full list of comments is provided in Appendix D: Survey Comments.

Analysis: 123 respondents provided comments at the end of the survey. Comments were grouped into categories based on common themes that appeared. Effort was made to group like comments together but note that comments can be multi-faceted and may fit into multiple categories.

Common Comment Themes

Accepted Materials (28 comments in this category)

 Many expressed disappointment with the loss of material acceptance or the ability to throw compostable packaging, paper products, tea bags / coffee filters and similar products in their organics bin. Many comments also included requests to bring back acceptance of these materials.

Local Compost Facility (24 comments in this category)

- Many comments were supportive of highlighting the environmental or residential benefits of a facility.
- Seven respondents mentioned cost of a local compost facility as a concern or in opposition to a local compost facility.
- A few comments provided feedback and questions on siting location and other issues.

Challenges (20 comments)

- Common challenges included access to bins, HOA issues or hauler issues, costs, and finished compost contamination concerns.
- Other issues that respondents commented on was space for bins, trucks for transportation, and lack of physical ability to manage materials.

Suggestions (19 comments)

- Under the suggestion grouping, respondents commented on ideas to improve education and for residents to have access to finished compost materials.
- A few comments advocated for programs or access to recycle additional non-organic materials.

General Supportive Comments (16 comments)

- Majority of the comments in this category supported composting in general, a related activity, the survey or staff work.
- Some of these comments appeared directed at a compost facility but were unclear.

Collection / Drop-off Program Comment (10 comments)

- Comments were mostly supportive of curbside programs, composting collection or dropoff programs.
- One comment provided was on the wear /tear on pavement from have more hauling vehicles on roads with concern about these cost to residents.

References

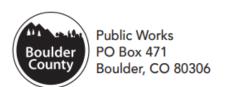
- 1. .38 Long LLC. "Hemingway Editor." *Hemingway Editor*, 2025, hemingwayapp.com. Accessed 2025
- State Demography Office. "Colorado Population Estimates by County and Municipality: 2010, 2020-2022." SDO American Community Survey Spreadsheets, Colorado Department of Local Affairs, Oct. 2023,
 - demography.dola.colorado.gov/assets/html/acs_spreadsheets.html. Accessed 2025.
- 3. State Demography Office. "Colorado Population Estimates by County and Municipality: 2010, 2020-2022." SDO American Community Survey Spreadsheets, Colorado Department of Local Affairs, Oct. 2023,
 - demography.dola.colorado.gov/assets/html/acs_spreadsheets.html. Accessed 2025.
- 4. Boulder County. "Owners and Addresses CSV." Assessor's Property Data Download, Boulder County, Dec. 2024, bouldercounty.gov/property-and-land/assessor/data-download.
- 5. U.S. Census Bureau, U.S. Department of Commerce. "Language Spoken at Home." *American Community Survey, ACS 1-Year Estimates Subject Tables, Table S1601*, https://data.census.gov/table/ACSST1Y2023.S1601?q=language&g=050XX00US08013. Accessed 2025.

- 6. State Demography Office. "Colorado Population Estimates by County and Municipality: 2010, 2020-2022." SDO American Community Survey Spreadsheets, Colorado Department of Local Affairs, Oct. 2023, demography.dola.colorado.gov/assets/html/acs_spreadsheets.html.
- 7. U.S. Census Bureau, U.S. Department of Commerce. "Age and Sex." *American Community Survey, ACS 1-Year Estimates Subject Tables, Table S0101*, https://data.census.gov/table/ACSST1Y2023.S0101?g=050XX00US08013. Accessed 2025.
- 8. U.S. Census Bureau, U.S. Department of Commerce. "ACS Demographic and Housing Estimates." *American Community Survey, ACS 1-Year Estimates Subject Tables, Table DP05*, https://data.census.gov/table/ACSDP1Y2023.DP05?g=050XX00US08013. Accessed 2025.
- 9. U.S. Census Bureau, U.S. Department of Commerce. "Household and Families." *American Community Survey, ACS 1-Year Estimates Subject Tables, Table S1101*, https://data.census.gov/table/ACSST1Y2023.S1101?g=050XX00US08013. Accessed 2025.
- 10. U.S. Census Bureau, U.S. Department of Commerce. "Selected Housing Characteristics." American Community Survey, ACS 1-Year Estimates Subject Tables, Table DP04, https://data.census.gov/table/ACSDP1Y2023.DP04?g=050XX00US08013. Accessed 2025.
- 11. U.S. Census Bureau, U.S. Department of Commerce. "Selected Housing Characteristics." American Community Survey, ACS 1-Year Estimates Subject Tables, Table DP04, https://data.census.gov/table/ACSDP1Y2023.DP04?g=050XX00US08013. Accessed 2025.
- 12. MSW Consultants. "Countywide Waste Composition Study". Boulder County, report, 25 Nov. 2019, assets.bouldercounty.gov/wp-content/uploads/2020/04/boulder-county-final-waste-composition-study-2019.pdf. Accessed 2025.
- 13. Skumatz Economic Research Associates Inc. (SERA), et al. "Boulder County Compost Market Study." Boulder County Commissioner's Office, report, July 2012, assets.bouldercounty.gov/wp-content/uploads/2017/02/RCD_CompostMarketStudy.pdf. Accessed 2025.

Appendix A: Survey Postcard

Figure 28 shows the final postcard proof that was mailed to residents.

Figure 28: Front and Back of Postcard



PRESORTED
FIRST-CLASS MAIL
U.S. POSTAGE
PAID
BOULDER, CO
PERMIT NO. 485

FEEDBACK REQUESTED: Boulder County Composting & Compost Facility Survey

CURRENT RESIDENT

-հոկնդվոններնախոնիկիցիկիցիկիցիկիցոնիկոլինիի

You have been chosen as a part of a sample of residents in Boulder County to complete a brief questionnaire. Your responses will provide information about residents' current access to food scrap and yard trimmings landfill diversion opportunities. The survey results will help inform Boulder County programs, policies, and infrastructure, including the county's compost facility exploration effort. (No compost facility site location has been selected at this time.)

Your responses are voluntary and will be kept confidential. Please have only one adult member of your household complete the survey. Your survey link is unique to your household.

This survey should take about 15 minutes to complete. Upon completion, you can enter to win a \$50 Visa gift card.

PLEASE COMPLETE SURVEY BY: April 20, 2025

https://boco.org/compost-survey

The survey is also available in Spanish using the same link.

La encuesta también está disponible en español utilizando el mismo enlace.

For more information, please visit boco.org/compost-facility or contact

Meghan Wiebe: mwiebe@bouldercounty.gov | 720-864-6468

Appendix B: Survey Questions

Boulder County Organics & Compost Facility Survey

- 1. What language would you like to take the survey in? | ¿En qué idioma le gustaría realizar la encuesta?
 - English
 - Spanish / Español

Introduction

Boulder County is seeking informal feedback from residents on their current access to organics (food scraps and yard trimmings) diversion opportunities. The survey results will help inform Boulder County programs, policies, and infrastructure. Results will also provide input on the county's compost facility exploration effort. For more details, see the <u>County's compost facility webpage</u>.

Survey respondent's personal information will be kept confidential but responses will be made public after the survey closes.

Please have only one member of your household complete the survey. Survey should take about 15 minutes to complete. If you'd like to be entered to win a \$50 gift card for completing the survey, please make sure to complete the final contact information section.

* 2. Please enter the address where you received this postcard. This address must match our list of surveyed addresses.

Address		
Address 2		
City/Town		
State/Province	select state	•
ZIP/Postal Code		

- * 3. What is your age? Respondents must be 18 years or older.
 - o Under 18
 - 0 18-24
 - 0 25-34
 - 0 35-44
 - 0 45-54
 - 0 55-64
 - 0 65+

Organics Generation

<u>Organic materials</u> are from natural sources including things like food scraps and yard trimmings. <u>Composting</u> is the controlled process where organics breakdown.

<u>Finished compost</u> is the end product of the composting process. Finished compost is a soil product that is applied to land to improve soil health, hold water, and help plants grow.

- * 4. In an average month, what organic materials does your household produce?
 - o Food Scraps like meat scraps, vegetable peels, expired processed foods etc.
 - o Yard / Garden Trimmings leaves, branches, grass, brush
 - o Paper / Fiber Products tea bags, coffee filters, paper towels, pizza boxes
 - o Agricultural Waste Materials hay, straw, crop residue, manure
 - Certified "Compostable" Packaging ('plastic' and paper products that are labeled as compostable) - coffee cups, take-out packaging, utensils made from plant based materials

0	Other (please specify)

Organics Collection

- * 5. What best describes your **TRASH** collection service? (Select all that apply).
 - o I contract directly with a hauler for curbside collection
 - My city provides curbside collection services through municipal staff or a contract with a hauler
 - My landlord, property manager, or Homeowners' Association (HOA) contracts with a hauler
 - o I self-haul materials to a transfer station or landfill
 - Not Sure

0	Other (please specify)

- 6. What best describes your **RECYCLABLES** (cardboard, glass and plastic bottles, paper) collection service? (Select all that apply).
 - o I contract directly with a hauler for curbside collection
 - My city provides curbside collection services through municipal staff or a contract with a hauler
 - My landlord, property manager, Homeowners' Association (HOA) contracts with a hauler
 - I self-haul materials to a drop-off center or transfer station TO BE RECYCLED
 - o I self-haul materials to a transfer station or landfill TO BE TRASHED
 - I don't have curbside recycling service and don't use a recycling drop-off. Recyclables go in my trash bin.
 - Not Sure

0	Other (please specify)

- * 7. What best describes your **ORGANICS** (food and yard waste) collection service? (Select all that apply)
 - o I contract directly with a hauler for curbside collection
 - My city provides curbside collection services through municipal staff or a contract with a hauler
 - o My landlord, property manager, or Homeowners' Association (HOA) contracts with a hauler
 - o I self-haul materials to a drop-off center or transfer station TO BE COMPOSTED
 - o I self-haul materials to a transfer station or landfill TO BE TRASHED
 - I don't have curbside organics collection service and don't drop-off material. Organics go in my trash bin.
 - I manage materials in at home through a compost pile, worm bin, feeding to animals or other method
 - Not Sure

0	Other (please specify)

Yard and Garden Access

- 8. Do you have a yard, garden or acreage?*
 - Yes I have a yard or garden that I manage
 - o Yes I have acreage or a farm that I manage
 - No I don't have an outdoor space that I manage (e.g. landscaping company primarily manages it, HOA / property owner manages it etc.)

Finished Compost

- 9. Which of the following soil amendment products do you currently use on your property?
 - o Finished Compost
 - Potting Soil
 - o Mulch
 - Manure
 - o Soil Blends
 - Peat Moss
 - o None of the above
 - Other (please specify)

- 10. How much soil amendment products do you use annually? A bag in this question refers to an average 20 50 quart bag of soil product sold at a garden center or hardware store.
 - Yes I have a yard or garden that I manage
 - I don't use any soil products

- o 1 5 bags per year
- o 5 10 bags per year
- 10+ bags per year or half a truck load (~0.5 cubic yards)
- An average pick-up track load (1 -3 cubic yards)
- More than one average truck load (3+ cubic yards)

Finished Compost Challenges

- 11. If you don't already use finished compost on your property, what are your barriers to using it?
 - o It's too expensive
 - o I don't know how or when to use it
 - o I've tried it before and didn't like it
 - o I'm not sure where to get it
 - o I worry about it harming plants
 - o I worry about weed seeds or weed growth
 - o I worry about contamination in the finished compost
 - o I don't already use finished compost but I'm interested in trying it
 - Other (please specify)

Awareness / Challenges

* 12. Please indicate your level of agreement with the following statements.

	Strongly Disagree	Disagree	Agree	Strongly Agree	Not Applicable to Me
I know what materials are allowed in my bin	0	0	0	0	0
I compost everything that I can	0	0	0	0	0
I know what happens to my organics after my material is collected	0	0	0	0	0
I have the time to compost in my yard	0	0	0	0	0
I have the space to compost in my yard	0	0	0	0	0

* 13. Please indicate your level of agreement with the following statements.

	Strongly Disagree	Disagree	Agree	Strongly Agree
Composting is a waste of money	0	0	0	0
Composting helps save space in the landfill	0	0	0	0
Boulder County should increase access to organics diversion options	0	0	0	0
Composting helps to conserve natural resources for the future	0	0	0	0
Boulder County should invest taxpayer dollars to support composting infrastructure	0	0	0	0
Composting is a waste of time	0	0	0	0

* 14. W	/hat are your	largest challenges	to diverting food	scraps and y	ard trimmings from	n the trash /
landfill	? (Select all t	hat apply)				

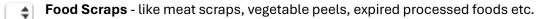
- o Collection is too expensive
- Drop-offs for yard waste are too far from my house
- o Curbside service is inconvenient
- Service is not available at my house/apartment
- o I am not sure what to compost
- I am not sure where to bring my organics
- I do not have room to store extra containers
- My property manager/landlord does not provide the service
- o Other (please specify)

- o Service isn't frequent enough
- I don't generate enough material to be worth it
- It takes too much time to separate materials
- My bin or pile attracts flies, wildlife or pests
- o The smell
- No barriers or challenges to composting, I compost everything I can

Facility Questions

Boulder County is evaluating developing organics processing infrastructure. The county has not selected a site location. The following questions will help the county understand residents' priorities, interests, and potential concerns about a facility.

* 15. What are the most important materials for a compost facility to accept? Please rank from most important (1) to least important (5).



Yard / Garden Trimmings - leaves, branches, grass, brush

Compostable Paper / Fiber Products - tea bags, coffee filters, paper towels, pizza boxes

Agricultural Waste Materials - hay, straw, crop residue, manure

Certified Compostable Packaging ('plastic' and paper products that are labeled as compostable) - coffee cups, take-out packaging, utensils

- Facility tours
- Educational experiences like composting classes
- Ability to drop-off food scraps
- Ability to drop-off yard waste
- Reduce travel distances for dropping off or picking up materials
- Access to free or low cost finished compost
- Access to free or low cost mulch or wood chips

- Potential acceptance of compostable packaging
- Creating local sustainability jobs
- Increasing diversion of materials away from landfills
- Decreasing overall greenhouse gas emissions (from reduced travel distances and increased waste diversion)
- o Improving health of local soils
- o None of the above
- Other (please specify)
- * 17. What considerations are you most concerned about when thinking about a local composting facility? Select up to **three answers.**
 - Incoming Feedstock (Material that would be accepted)
 - Initial Development Costs
 - On-going Cost
 - Odor Impacts Noise Impacts

- Traffic Impacts
- o Impact to Water Quality
- Contaminated Finished Compost
- o Impact to Air Quality
- None of the above

^{* 16.} What interests you most about a local composting facility? Select up to three answers.

Demographics

o Rent

* 18. How would you describe your race?

o American Indian or Alaska Native

	0	Asian or Asian American				
	0	Black or African American				
	0	Hispanic or Latino				
	0	Middle Eastern or North African				
	0	Native Hawaiian or Pacific Islander				
	0	White				
	0	I prefer not to answer				
	0	I prefer to self-describe				
10	Inc	luding yourself, how many people live in your household?				
19.	IIIC	tuding yoursett, now many people live in your nousehold?				
	0	1				
	0	2				
	0	3				
	0	4				
	0	5				
	0	6 or more				
20.	Wh	at best describes your home?				
	0	Single family home				
	0	Duplex or townhome				
	0	Condo or apartment complex with 2 to 7 units				
	0	Condo or apartment complex with 8 or more units				
	0	RV, trailer, or mobile home				
21.	Do	you rent or own the home you currently live in?				
	0	Own				

Closing

- 22. Boulder County supports organics diversion and composting at all scales. If you would like to learn more opportunities at the county, please check the boxes next to the programs you are interested in and provide an email address. A staff member will follow-up by email.
 - o Free Backyard Composting Classes
 - Yard Waste Drop-offs
 - o Mountain Area Community Yard Waste Sort Yards
 - o Nederland's Transfer Station Composting Unit
 - o Updated Agricultural On-farm Composting Regulations
 - o Compost Facility Exploration

lf	If you selected any of the boxes above, please add an email address below:				
	3. Is t	there anything else you would like to share with us about composting or a local compost y?			
24	4. Wo	ould you like to be entered into the drawing for a \$50 Visa Giftcard?			
	0	No – I don't want to be entered into the drawing			
	0	Yes – I will enter an email address or phone number in the text box below.			

Appendix C: Other Composting Challenges

Figure 29 provides the write-in responses from question 14 for respondents that selected 'Other' as a challenge to diverting organic materials. Comments are presented without editing.

Figure 29: Diverting Organics 'Other' Write-In Comments (n= 88)

Category	Other Challenges
Bin Space	I hate the composting containers that are available. Two huge for my small yard and hard plastics are terrible for the environment.
Bin Space	Our carports are narrow so the container would have to be smaller enough to fit with our recycle and trash bins.
Contamination	Neighbors place many non compostibles in the bin- and place compostibles in the trash can.
Don't Want /	I have my own compost
Need	
Don't Want /	have no desire to
Need	
Don't Want /	I am a vegitarian and don't need 3 bins to compost. My stuff could fit in 2 Trash & Compost. Can not afford or house 3 bins.
Need	
Excess	I need extra compost services in the spring after my yard clean up when I have leaves, old mulch, etc. to compost. The rest of the year there
Material	are no challenges.
Excess	I produce too much and need a second bin
Material	
Excess	seasonal volume variance of yard trimmings spring and fall, however, what I cannot compost on my property, I do store bags of yard
Material	trimmings of mainly leaves, trimmed trees and bush branches, twigs, etc. and meter them weekly into my compost weekly pickup. I do this
	because the City Spring and Fall pickups are far too restrictive for "approved" containers being placed for pickup incurring a large additional
1104	expense for the "bags".
НОА	HOA limits my in-yard options
НОА	HOA requires cans out of site. Maggots set up in my garage in summer months.
HOA	My apartment used to have a compost bin but it disappeared a few weeks ago. Hoping it comes back.
НОА	my HOA prohibits composting. And composting attracts bears and nuisance wildlife to my yard
НОА	our bins were consolidated by my HOA and now it's across the creek and a pain to get to (we do it anyway)
Materials	Boulder composting no longer accepts coffee filters, paper towels, kleenex and large size Biobags
Materials	Cannot compost food containers any longer and other compostable items.

Category	Other Challenges
Materials	Can't compost compostable containers anymore
Materials	city of longmont narrowed it'd compostable materials
Materials	Compostable packaging is not accepted
Materials	Composting services where I work do not allow compostable plastics like type 7 PLA
Materials	Curbside service is only for yard waste, not food scraps
Materials	Hauler is restrictive about what they'll take - no paper, cardboard or compostable utensils
Materials	I can no longer compost paper products
Materials	I compost but have been frustrated by the changes with what is allowed to go in the bin (ex. paper products).
Materials	I don't pay for the service because it doesn't take paper products. I don't generate enough non food material to pay.
Materials	I don't think Western disposal allows any paper products in curbside compost bin so all paper towels are going into landfill
Materials	I like Longmont's service BUT they don't accept tea bags or other paper products
Materials	I was disappointed that compostable containers are no longer allowed in our compost bin.
Materials	I wish I could compost kleenex
Materials	I wish we could once again compost things other than food scraps through the municipal service (things like paper, bioplastic, etc.)
Materials	I would like to not have to put ANYTHING compostable in the trash
Materials	I'd love to compost more including paper products
Materials	Longmont City compost service doesn't allow "Brown" materials in compost anymore, so it's too messy and not worth it.
Materials	Minor inconvenience of composting coffee grounds with paper filter
Materials	My contracted service (western disposal) no longer permits paper products and other non food scraps.
Materials	not allowed to compost paper products anymore
Materials	not being able to compost paper towel, tea bag, etc isn't that the new rule?
Materials	Not enough compostable materials, such as compostable food containers, are accepted by my current organics collection service. This
	limits what we can use the service for and more ends up in trash. Better separation technologies should be employed to deal with accidental
Materials	addition of non-compostable materials rather than limit to yard trimmings and some food scraps. Our compost has been extremely limited in what we can put in the bin.
Materials	Restrictions on paper towels, coffee filters and compostable containers
Materials	Rules disallowing compostable items
Materials	Rules for compost allowed bags are confusing. That said I did purchase after a lot of research but think bags could be supplied or simpler
· iatoriats	Traces for composition and suggestion contrasting. That said failed a fail a fact of resourcin said failing suggestion of simpler

Category	Other Challenges
Materials	Separating coffee grinds (compostable) from coffee filters (no longer compostable, apparently)
Materials	We cannot currently compost paper products or compostable flatware of any kind due to restrictions at the statewide level
Materials	we would like to compost paper but that option was discontinued for our area
Materials	Wish we could compost more. Like paper products that don't go into recycle
Materials	Would compost more if food soiled paper towels and pizza boxes were still allowed
Materials	you no longer take paper from shredders or pizza boxes
Materials	Need a source for compost bags that are endorsed by composting site.
No Barriers	D/N/A
No Barriers	I don't really have any barriers to composting, but we do occasionally have trouble with bears attempting to get into our bins
No Barriers	I have no barriers and have a small compost tumbler in the backyard and use Western Disposal but my housemates don't always sort their compost especially food scraps, unfortunately
No Barriers	No challenge I use the compost I generate for my planing pots
No Barriers	None apply
No Barriers	None of the above
No Barriers	Seems fine - no change
Min. Material	I have minimal waste
Min. Material	I live alone and generate minimal compost - mainly yard waste.
Other	Compost bins unwieldy. Latch mech ineffective and fussy to operate
Other	Compost gets hauled by Western Disposal and I dont know if I can access finished product then
Other	Food scraps are frozen and put in neighbors curbside compost bin. Yard waste is taken to Western xfer. I have an acre, but will not compost onsite due to bears and raccoons.
Other	I don't want to take waste to a drop off
Other	I never compost food scraps
Other	I take yard waste-grass and branches to offsite place-I just don't do food scraps
Other	My city Louisville provides the service which makes it much more likely for me to do it.
Other	Not all residents compost
Other	really don't know what/how I would benefit from this.
Other	We could compost indoors and take it to the transfer station if they had a receptacle.
Other	When I've tried composting I didn't get the heat/water right so it didn't break down properly

Category	Other Challenges
Other	Worries around my clean feedstocks being rejected because of commingling with contaminated collections.
Other	The curbside collection can be a mess during a windy day.
Other	Age - I'm 82
Other	being disabled, I'm not sure how much I can do
Pests	Accepting paper bags in bin would help with smell and flies
Pests	animals
Pests	Animals are attracted to my food scraps in the composting bins and despite being secured it has led to some big messes
Pests	Bears
Pests	Bears make it hard to do much but vermicompost
Pests	Don't like the maggots
Pests	I don't like to compost cooked food or meat products because of the smell and attracting critters but compost every other type of uncooked food. I sometimes don't compost in the winter because there is not enough in the bin and it doesn't get dumped
Pests	Not allowed to compost food scraps due to wildlife concerns
Pests	We are not allowed to have compost outside of our garage. In summer and warm months it can smell and attract flies. Allowing bins outside the garage may help with this. Or tips to keep flies smells down for townhome owners.
Pests	We have had trouble with maggots in our bins.
Service	I compost food scraps and yard waste, but would prefer more frequent service in the summer when maggots become a problem.
Frequency	
Service	I create food waste on a daily basis, but my cart is picked up every two weeks. That said, it's not always full either.
Frequency	
Smell	Smell during hot weather. Would LOVE an outdoor, community compost bin instead of a personal one in our garage.
Time	I don't know anything about and don't have time for it
Time	Time to process

Appendix D: Survey Comments

Figure 30 provides the comments from question 23, which provided respondents an open-ended text box for comments, questions or other remarks. This question was optional for respondents. Comments are presented without any editing.

Figure 30: Survey Open-Ended Comments (n= 123)

Category	Survey Comments
Materials	Please allow a method for composting household compostable items. Please make it mandatory or opt out,
Materials	I understand that too many people were putting non-compostable plastics into the compost bins. Not sure how to best educate these people but it would be nice to be able to compost these again.
Materials	I was disappointed when Western Disposal stopped accepting compostable food packaging. So many restaurants invested in these type of expensive products. More education should have been provided to the community in an effort to help individuals understand what exactly can go into a compost bin.
Materials	Western disposal picks up our compost bi-weekly, but it does not support compostable packaging. Packaging makes up a significant percentage of our waste that goes to landfill, when it could be composted. It would be great to have expanded composting service for this type of materials. We also use Ridwell recycling, as they are able to recycle more materials than western disposal offers. It would again be nice to see western disposal perform this kind of service instead of contracting out to an additional company.
Materials	I miss being able to compost both paper products and compostable dishes. I still buy compostable dishes, because I figure they biodegrade faster in a landfill. I don't know anything about how county residents could access county compost for our yards or gardens, should we desire. Ditto mulch or wood chips.
Materials	I was disappointed when our curbside stopped accepting paper and commercially compostable materials and limited to food only
Materials	I would really like to be able to compost paper products again along with certified compostable products
Materials	I would really like to be able to do paper and compostable plastic like we used to
Materials	If bringing this back means that we could compost the compostable food containers/cups and napkins, that would be GREAT!
Materials	There will be a limited utility to any compost facility if it cannot take compostable cups, flatware and other plastics as well as contaminated paper products (those which cannot be recycled. Those are what we most have a need for a facility to handle right now.
Materials	I'd really like to get back to composting the composting "plastics" and tea bags/paper towels/etc.
Materials	Please offer an option to be able to compost organic material aside from just organic waste - it's such a shame to have to throw away compostable products in the landfill
Materials	Dairy and meat scraps should be separated from other organic compostable materials
Materials	Please allow paper products back in compost bins so these items don't go to landfill. Keep it simple to avoid contamination by including paper towels, napkins, pizza boxes, tissue paper, etc. NO "COMPOSTABLE" TAKEOUT CONTAINERS OR UTENSILS since these are confusing

Category	Survey Comments
	to people and lead to contamination. Also, keep compost collection out of public areas since they immediately become trash cans. Overall
	though, I love that I can curbside compost! Thank you!
Materials	I would like to add napkins and paper products back into my curbside compost.
Materials	Longmont has a wonderful curbside compost pickup system! It would be great to be allowed to compost more paper products that are
	currently rejected. Paper towels? Kleenex?
Materials	Needs to accept paper products unlike Western Disposal
Materials	The Martin St facility in Longmont meets most of my composting needs except the ability to compost paper products that were previously
	possible before the composting rules changed.
Materials	Would like to be able to compost paper products again. I understand it was being misused but perhaps with more education
Materials	Try hard to balance ease of including paper with filtering contamination
Materials	I just want to compost paper towels, box, etc.
Materials	Please go back to accepting food soiled papers and paper towels and greasy pizza boxes.
Materials	Please when considering a new facility include the capacity to handle paper and cardboard products.
Materials	Go back to accepting tea bags, coffee filters and compostable paper products.
Materials	I was disappointed when Longmont no longer accepted paper composting, like paper towels, coffee filters, tissues
Materials	the changes to our ability to compost paper towels, coffee filters etc, has made it more difficult to compost. I think there is confusion in the
	city about what can be composted i.e. no longer able to compost compostable paper products
Materials	It would be nice if shredded paper could be accepted at a local compost facility. Longmont's shredding events are always on days I have to work.
Materials	I hope you can accept compostable items that are not food soon! Miss that. Thank you for all you do. Keep up the good work!
Backyard	fyi I am also engaged in worm composting for about 8 months per year
Composting	
Backyard	I compost materials from my household eg fruit peels, coffee, egg shells in a small private compost on my property then use that compost for
Composting	my garden.
Backyard	I compost what I can at home, but am grateful for the municipal program that allows composting of meat/bones/diseased plants which my
Composting	compost can't handle. I would like to not have ANY organic material go into the landfill
Backyard	years ago, I took a composting class at the Fairgrounds.
Composting	
Backyard	Food scraps are frozen and put in neighbors curbside compost bin. Yard waste is taken to Western xfer. I have an acre, but will not compost
Composting	onsite due to bears and raccoons. The Western xfer station works for me. Pickup load of yard waste is just a \$1 or \$2 a few times a year.
Challenges	I used to compost but my apartment's compost bin was removed recently with no explanation.

Category	Survey Comments
Challenges	I would gladly contribute compost if my HOA gave us bins to do so.
Challenges	I would like to compost more, but I am forced to get a trash and recycling bin. I would prefer a trash and compost bin.
Challenges	We generate only a small amount but would like to be able to have some way to compost it since our HOA doesn't allow it at our home.
Challenges	Compost has to be curbside pickup and needs to include brown materials, otherwise it's too stinky and messy and inconvenient to be worthwhile.
Challenges	our HOA (Park East Square) decided they didn't like the compost bins in each building with the other bins (complaints about maggotsyes they were gross) so they consolidated them into a few larger bins that are now not accessible for regular use. I wish there was a way to have maybe smaller bins in each building that could be kept cleaner. it was also hard to make sure the student renters in the complex put the right things in the compost bins I was always writing signs to inform them. I miss being able to compost the compostable utensils and cups, etc. on the CU Boulder campus, since many programs and departments invested in them but now they all get thrown away.
Challenges	I guess I am unclear about what I can compost - Last year I had Western Disposal - was told not to compost paper of any kind. Now have OneWay Trash - and was told the same. This survey makes it seem like I can compost paper. But I am going to go ahead and not compost it until OneWay tells me I can.
Challenges	I fear that our local compost bins (picked up by Republic) simply go to the landfill due to the amount of trash that is placed in them. Our community either is indifferent or does not understand what exactly should go/not go in these bins. Thank you
Challenges	Love the idea but concerned about the number of people who don't do it which contaminates the compost.
Challenges	I wish the Longmont compost pickup was free, as costs climb across the board.
Challenges	I would love to use the city's curbside compost bins, but am deterred by the cost.
Challenges	Finished compost products should be free to those paying for the system. It's really galling to pay for compost pickup, and then pay again for the compost, which is exhorbitently pricey.
Challenges	With the new Boulder regulation I only have one tiny bag of compost material per week. A huge waste of my tax money.
Challenges	I totally support composting but am concerned that the finished product will not be up to my standards as a person who doesn't use pesticides or chemicals on my yard.
Challenges	keep plastics out is a big problem be sure compostable if well defined ensure organic certification acceptance
Challenges	I would love to have my compostables and larger yard waste picked up and be able to get finished compost in return. Concerns are pesticide and weed seed contamination.
Challenges	My husband and I are both disabled. Terrible arthritis in hands and damaged feet. Difficult to walk difficult to use hands for separating compost and dealing with huge compost containers We are elderly and this sounds difficult.
Challenges	I know of 3 cities in Boulder County (Boulder, Louisville, Lafayette) that require single family homes to use the city's program that has compost pickup. People that have small units in multi-family complexes don't have room for 3 bins (recycle, trash and compost). Restaurants need to have a system for food waste.

Category	Survey Comments
Challenges	Getting yard waste to a facility is tough if you don't have a pickup truck. Plastic bags are not to be used. This needs to be solved too.
Challenges	I compost yard waste. But in spring and fall there is too much. I don't have a truck and that prohibits me from transporting a lot of my waste. It just goes in the garbage. I would like to see an answer to that addressed
Collection / Drop-offs	In terms of Equivalent Single Axel Loads (ESAL's) a composting truck for residential pickup has the equivalence of about 3000 to 5000 homeowner vehicles when driving on a pavement. This fact is NEVER discussed at the local level when implementing composting and recycling programs. From my perspective, these programs are merely a way to force residents to pay their cities to accelerate the destruction of their asphalt and concrete pavements. It's very frustrating and counter-productive, but hey, the programs make for great optics, and virtue signaling!
Collection / Drop-offs	Our family has been wanting to compost but our HOA does not. We have a contract with Western Disposal for trash and recycle pickup. I have always wondered why we do not use City of Longmont. We were told that it is because of our dead-end streets in our neighborhood and the trucks can not turn around. I would prefer that our community supported the city services.
Collection / Drop-offs	Do not remove composting from our trash services.
Collection / Drop-offs	I am happy with the City of Longmont picking up my composting materials because it is very convenient.
Collection / Drop-offs	I appreciate the compost/recycling program in Boulder . It is convenient for everyone.
Collection / Drop-offs	I like the curbside pick up we have in Longmont. When it first started they accepted more than just food and yard. I understand they stopped because some products labeled compostable were not
Collection / Drop-offs	I love our curbside compost service and I hope the city continues to support it.
Collection / Drop-offs	I have tried to compost in the past- bought a green dome from Ecocycle years ago and it never worked- I am happy dropping off my yardwaste at our Superior Yard Waste bins
Collection / Drop-offs	Superior just started composting and switched trash providers. We are thrilled to have more access and a variety of bin sizes!
Collection / Drop-offs	We do take our grass and tree trimming to the sort yard in the summer. We appreciate having that service available.
Facility	Do not want to pay for this.
Facility	Please look at the long term costs of a county run versus privately run facility
Facility	There needs to be a bang for the buck look at any proposal. Typically, we compost yard waste and other things during the summer which are larger items. The composting food scraps is minimal due to smaller scale.

Category	Survey Comments
Facility	These seems like a regressive tax on the people of Boulder. Any taxpayer funds spent on this will disproportionately benefit the wealthy
	(those owning land and backyards) at the cost of those who don't. Please consider the disproportionate impact a tax to fund this will have on the working class.
Facility	I would like to see a mission based organization operate it
Facility	There was discussion of a large composting site that would take human waste. That is a terrible idea. No idea who could even use this compost. Certainly not ag. We don't want such a large facility anywhere near us. I'm a big supporter of composting but it is ridiculous to put this anywhere near a community. Also it was such a large facility taking compost from neighboring communities. I don't think it's environmentally friendly to drive from great distance to a composting site. We do NOT want a huge comparing site anywhere near us.
Facility	I'm unclear on whether this proposal includes pickup or it would all be drop-off basis. Would the city of Longmont patriciate and include this facility in it's existing composting serivce?
Facility	Where would the facility be located?
Facility	I really appreciate this and value having access to composting, especially for things like compostable packaging that usually can't get composted in a backyard pile! Also, I'm a freelance journalist and would love to know more about the challenges composting facilities face. I've heard that facilities have had huge problems with people putting the wrong stuff in, spoiling the whole pile.
Facility	Home composting which includes food scraps can be a challenge in Boulder due to attracting animals. Having a central location for the community that can be managed and reach higher temperatures for the compost pile may provide a better quality.
Facility	I really think Boulder should start a compost facility. Sending compost out of town to be incinerated in an industrial compost facility means that composting is barely environmentally better than trash. I hope this county can put its money where its mouth is as a county of people who purportedly care about the environment.
Facility	I think this is a fabulous idea, a local composting facility! I was an organic farmer and am well heeled in this area. Compost happens and it helps restore our soils! My only concern is that when I peek in compost bins around the neigborhood, I see that a lot of people don't care enough and there is garbage mixed in. I see this in recycling too of course
Facility	Building a facility which values discards as raw materials and is intended to produce high value soil amendments is paramount. Building a "solid waste facility" designed to maximize diversion for diversions sake will continue to undermine the potential of compost at all levels.
Facility	I want to be the facility to be built as environmentally as possible. We need composting, it's a plus plus plus all the way through. People could go there and get soil.
Facility	I think it's great that Boulder is considering running our own composting facility! I think it would need to clearly improve on the existing Front Range composting facility in terms of its ability to accept more materials.
Facility	I think that a municipal composting facility would be a great idea, especially if it were to provide access to composting services for people who would not otherwise be able to compost.
Facility	I think it is essential that there is a local facility, decreasing the fuel spent to transport material.

Category	Survey Comments
Facility	I'd be very much in support of a composting facility if there was compost collection services. It would be unlikely that I would use a compost
	facility if I had to transport on my own.
Facility	Composting is not a cost sustainable option now or in the foreseeable future. Even facilities like City of Louisville branch collection are
	unable to find users for their free product. Commercial facilities cannot genetate enough income to make large scale composting pay back
Facility	I strongly oppose spending taxpayers money on this endeavor.
Facility	I'm not interested in a taxpayer supported composting facility. It should be done by the private or nonprofit sector
Facility	if its done right at a fair cost i would be supportive.
Facility	A compost facility location should exist where no odor or noise problems will affect existing, local homeowners or property owners. Location
	should be co-located where existing odor/noise issues already exist, i.e. in proximity to existing waste/landfill operations. Also zero
	additional/new taxes should be levied to construct such a facility.
Facility	Make it away from Homeowners
Support	Love that Longmont provides free mulch
Support	really hope we can make something happen locally in Boulder County
Support	Composting is good idea!
Support	Great investment for sustainability.
Support	Happy to see this activity and moving in this direction. Thank you for your work.
Support	i think its a great idea, especially if its low cost to residents
Support	I'm all for it!! I was so excited when my condo complex started offering compost collection services, and I want everyone in Boulder to have the same service!
Support	Thank you for the efforts to bring all scales of composting closer to Boulder. They are all necessary!
Support	Thank you for trying to improve composting around Boulder county. It is something we really need here.
Support	We're glad this is being considered and planned. It is needed and important.
Support	Thank you for making the world a better place!!!
Support	I would like to be more involved in food waste diversion opportunities in Boulder. It was very disappointing to hear that the facility was
	canceled and that many trucks that go to A1 can be diverted to landfill because of contamination. I live in Boulder and manage a 5-acre farm
	in Boulder County where we are now registered as a CESQG composting with Ecocycle as a pilot program. If the City could help divert food
	waste to local farms on a larger scale, our goals to restore the soil health and try to reverse the existing compaction and desertification on the
	land within a reasonable budget would be easier to achieve.
Support	Composting and recycling should be a life habit for everyone, and communities should be supporting these important modes of
	sustainability.

Category	Survey Comments
Support	Hope this is an option for city of Boulder. Mostly I would like to see improvement in soil even if ours is in a good range. I have no idea but
	always hearing about soil depletion.
Support	Hoping we can make one happen!
Support	I support the resolution passed by the Longmont Sustainability Advisory Board re: compost!
Miscellaneous	in house com\$4000
Suggestions	I helped to implement a lunch composting program at my high school as part of YESC. A little education and presence goes a long way. I realize people often don't know which type of plastic is comercially compostable, but taking away that option forces everyone to use non-compostable plastics instead. Even worse, potentially compostable plastics (disposable cutlery, straws) must go in the garbage where they will take almost as long to decompose as oil-based plastics. There has to be a way to make it convenient for people to dispose of plastic properly. At my school, there were people at lunch who helped people dispose of their trash properly. We should do the same here to build the sorting habit, and maybe have some public place you can bring your waste to to get properly sorted (or to get help doing it yourself).
Suggestions	I understand the changes made to the curbside collection were due to contaminated materials (plastics). Increasing education is key. Helping people understand how easy it is and how to be particular and err on the side of caution to prevent contamination.
Suggestions	We have great composting options. Probably need better education as to what is NOT compostable or recyclable. Appears we sort a lot of materials which, in the end, go to the landfill.
Suggestions	I wish city of Longmont Would put on each composte and recycle bin what is accepted and what is not You have no idea how many people put plastic bags in their bins. I do my due diligence and take clean dry plastic bags to the grocery stores
Suggestions	Just that it's very important to provide maximum chance for Boulder to compost and maximum use for the final product of composting.
Suggestions	make finished compost pickup easy and regularly available for folks that do curbside compost (in other words, I send away my scraps to be composted but do not have regular access to the finished compost)
Suggestions	Resident would like free access to the compost end material
Suggestions	Would you consider recycling film plastics and multi-layered plastics
Suggestions	I think that Boulder County should invest more in recycling rather than composting. Plastics are a huge problem.
Suggestions	NEED FREE PAPER SHREDDING DAYS - PREFERABLE ONCE A MONTH OR ONCE A QUARTER.
Suggestions	I'd like to see incentives, midels and programs that help people to keep the biomass and food waste on their properties.
Suggestions	County needs a drop-off/recycling for yard dirt
Suggestions	I use my town's yard waste recycling center but no opportunity for food waste diversion. Would like a free service or drop off in exchange for one of my trash bins but the HOA hasn't made that an option.
Suggestions	Branch pick up is important.
Suggestions	More local trash cans

Category	Survey Comments
Suggestions	A program helping neighbors to combine composting of small households that don't often generate enough solely
Suggestions	Leaf and yard clippings drop off should be free and offered year round
Suggestions	Please don't make it so complex that people chose to ignore it!
Suggestions	the county selling backyard compost bins at a reduced cost