



Community Planning & Permitting

Courthouse Annex • 2045 13th Street • Boulder, Colorado 80302 • Tel: 303.441.3930
Mailing Address: P.O. Box 471 • Boulder, Colorado 80306 • www.bouldercounty.org

BOULDER COUNTY PLANNING COMMISSION AGENDA ITEM #1

2:30 PM
June 21, 2023

*All Commissioners' public hearings and meetings will be offered in a hybrid format where attendees can join **through Zoom** or **in person** at the Boulder County Courthouse, 3rd Floor, 1325 Pearl Street, Boulder.*

PUBLIC HEARING with PUBLIC TESTIMONY

STAFF: Andrea Vaughn, Long Range Planner

Docket DC-23-0002: Composting Incidental to Farming

Text amendments to the Boulder County Land Use Code related to composting incidental to farming found in the Composting Facility use section 4-506.A and other related Articles and provisions necessary to integrate these changes.

Action Requested by Planning Commission: Recommendation of Approval to BOCC

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SUMMARY

On March 21, 2023, the Board of County Commissioners authorized Community Planning & Permitting (CPP) staff to pursue a text amendment to the Boulder County Land Use Code (the Code) regarding composting incidental to farming operations, currently found in Article 4-506.A of the Code. The text amendment goals are to assist in facilitating regenerative

agricultural practices and close the loop on the circular economy for agricultural producers by allowing them to collect materials from the public and retail the finished product on site. Article 4-506 and the provisions within 4-506.A were adopted in 1996 and have not since been amended. At the time of adoption, the regulations were drafted in a manner consistent with Colorado Department of Health and Environment (CDPHE) regulations and did not allow for the collection of organic materials from off-site. State regulations have since been modified to remove certain restrictions on composting, which provides an opportunity for the county to make the proposed amendments. The proposed amendments support the stated goals while maintaining compatibility with the surrounding environment and protecting public health and the environment.

PROJECT GOALS

This proposed text amendment to Article 4-506.A and related sections in Article 4-516 and Article 18 is intended to better facilitate composting in a manner that is supportive of regenerative agricultural practices and allows farmers to retail the finished product. The goals for this project can be summarized as:

1. Reduce local barriers to composting as an implement for regenerative agricultural practice. Agricultural producers have had difficulty sourcing quality compost material and the compost material that is available from only on-site sources often lacks the requisite nutrients to create a quality product. Allowing farmers to source compost materials from the off-site provides access to the materials they need for composting to be successful.
2. Close the loop on the circular economy. Local producers desire to not only be able to collect compost input material from the public, but also to be able to retail unused finished compost product, creating a circular system. This circular system reduces waste and provides an economic benefit to farmers producing finished compost.
3. Clarify Code language. The provisions that regulate composting incidental to farming operations are currently defined as “Additional Provisions”, in Article 4-506, Industrial Uses of the Code; these same provisions also include backyard composting. These additional provisions are defined as being exempt from the Composting Facility use, but it is unclear where exempt composting is permitted to take place. Additionally, these provisions provide the same regulations for backyard composting and composting incidental to farming operations. These uses however, differ greatly in their use, scale and intensity, which is not reflected in the current Code provisions. As Additional Provisions to the Industrial Use Composting Facility, the allowances for these activities are not easily found in the Code as they are not intuitively located.

DISCUSSION

The proposed Code amendment modifies Article 4-506.A.5 “Industrial Uses; Composting Facility”, by removing the exempt provisions in subsection a, Article 4-516 (“Accessory

Uses”). By introducing two new Accessory Uses Accessory Agricultural Composting and Backyard Composting these activities can be individually addressed and accessed more easily in the Code. Amending Article 18-105 (“Definitions”) by adding finished compost to the list of products that may be sold under the definition of Agricultural Products completes the circular economic system. The components of the text amendment are discussed below.

Article 4-506.A.5.a Composting Facility, Additional Provisions

The modification to this section of the Code removes the provisions regulating backyard composting and composting incidental to farming operations. This is a technical change necessary to support the creation of the two new accessory use categories, “Accessory Agricultural Composting” and “Backyard Composting” ensuring the Code is not duplicative and conflicting.

Article 4-516.A Accessory Agricultural Composting

This section, which introduces and defines the new Accessory Agricultural Composting use and states that it is permitted as accessory to a principal agricultural use in all zone districts where Open Agriculture is permitted by-right. This section also includes additional provisions that establish parameters intended to implement the goals of the project, while mitigating the impacts to the environment and the surrounding areas.

In the proposed text amendment, subsections 4-516.A.b-d have been maintained from the text currently found in Article 4-506.A.5.a.iii-v. The provisions, related to the location of composting and the overall amount of composting that could be considered ‘incidental to farming operations’, were first adopted in 1996, after review and approval by the Agricultural Advisory Committee. These parameters were intended to help ensure compatibility among the diverse uses that exist throughout the county and to mitigate the potential nuisance impacts of composting. County staff believe that these provisions are appropriate and should be maintained to continue that compatibility and given that the scope of the project was intended to address the importation of materials from off-site and the sale of finished compost, these provisions were not considered for amendment at this time

Subsection 4-516.A.5.a and e of the proposed text amendment provide parameters for Accessory Agricultural Composting, which regulate the collection and composting of organic materials on Boulder County farms. The following paragraphs review these parameters in more detail:

- a. Materials which may be collected from off-site are limited to wood and vegetative waste, yard waste, and food waste separated from other waste materials at their origin point.

In engaging with the public, as well as with CDPHR, the largest concern with the importation of materials for composting is the risk posed to human and environmental health. By limiting the types of materials that can be collected, this provision seeks to

alleviate those concerns by allowing the collection of material that poses a low risk to the health of consumers and the surrounding environment. Staff believes that limiting the types of materials that may be collected serves the needs of agricultural producers that are seeking to source their compost materials locally, while protecting the public health of our community. Additionally, this provision prohibits the collection of materials by third-party collection services and requires that the collected materials are those being delivered by the originator of the waste materials. For example, waste materials may be generated in a home, separated from other waste at that point (the origin point) and be delivered to the farm. However, waste may not be generated in a home, collected by a waste management collection service and then be delivered to the farm by the waste management company. .

- e. Any required state and federal licenses and permits shall be obtained from the appropriate regulatory agencies and shall be maintained in good standing.

Depending on the type of operation, composting is subject to state and federal regulations. CDPHE, as well as Colorado Department of Agriculture, have requirements and parameters that must be adhered to. This provision alerts composters operating within Boulder County that these requirements exist and includes compliance with those regulations as a zoning requirement.

Subsections 4-516.A.5.f and g are provisions that have been recommended by Boulder County's Public Works Stormwater Quality Protection Division and Boulder County Public Health, through the referral process (see Appendix C). These provisions acknowledge that while composting has environmental benefits, the nutrients found in composting materials pose a risk to groundwater and surface water quality.

- f. The location of composting activities must be outside the 100-year floodplain and at least 100 feet from wells and at least 50 feet from streams, or other water features.

The values of the Boulder County Comprehensive Plan and Land Use Code include a dedication to the health of our environment and our community. Though composting does provide a myriad of benefits, both as a soil amendment and as a tool for mitigating the impacts of climate change, concentrated nutrients found in composting pose a risk to water quality. Setbacks that regulate the siting of compost piles are a best practice method recommended by the United States Department of Agriculture, the EPA and several research institutions, in order to reduce stormwater runoff into water ways. Staff believes that the setbacks proposed in this provision allow for the development of small-scale composting on farm sites, while protecting the water quality in water ways and ground water.

- g. Best practices to protect storm water quality shall be implemented so that runoff from composting does not leave the property or enter a water body.

Similar to establishing setbacks to protect water quality, it is recommended that agricultural composters implement best practice measures to ensure that all runoff from compost activities is contained to the site, in order to reduce the risk of water contamination. While this provision does require mitigation, staff believes it is most appropriate for agricultural producers to determine which mitigation measures are most appropriate for their operations.

Article 4-516.N Backyard Composting

In the existing code language, there is no distinction between backyard composting and composting incidental to farming operations. This section of the proposed text is intended to define a scale of use for backyard composting that is proportionate to the needs of residential composting.

This section introduces and defines the new Backyard Composting use and defines the zone districts where the use is permitted (all zone districts).

Subsections 4-516.N.5.a and b establish parameters surrounding the types of materials, the method of collection and the distribution of compost material. Composting, while beneficial to the environment, may also pose a risk to human and environmental health and attract nuisances, such as pests. In order to reduce these risks in residential settings, these parameters limit the types of materials to yard and food waste collected on site and since these are not intended as business use the sale of finished compost is still prohibited.

Subsections 4-516.N.5.c and d establish parameters regarding the quantity of active composting and the location of the composting on a residential parcel. The following paragraphs review these parameters in detail:

- c. The total amount of active compost material shall not exceed 5 cubic yards at any one time.

According to the current Code, backyard composting permits up to 1,000 cubic yards of active composting at any one time. However, CDPHE regulations, updated since 1996, permit only up to 100 cubic yards for backyard composting. Provided that the county's regulations are more permissive for backyard composting than state regulations, to the proposed amendment establishes parameters that are not only within the allowances of state regulation but are of a scale that is reflective of a residential accessory nature.

Staff conducted research, which was largely informed by the Environmental Protection Agency (EPA), to determine the appropriate size of an at-home composting operation and found that the EPA estimates that Americans waste approximately 492 pounds – 1,032 pounds of food per year (Environmental Protection Agency, "From Farm to Kitchen: The Environmental Impacts of U.S. Food Waste", 2021). The EPA also estimates that approximately 463 pounds of food waste is the equivalent of 1 cubic yard. Based on the average household size in Boulder County—which is estimated at 2.41 people—permitting 5 cubic yards of active composting at any one time should be sufficient to meet the needs of households in Boulder County.

- d. The location of composting must meet the zone district setbacks if more than one cubic yard of material is being composted at any one time.

In the Code, setbacks are utilized for purposes related to health and safety, as well as for mitigating impacts to adjacent neighbors. In the case of backyard composting,

requiring setbacks for active composting greater than 1 cubic yard helps to mitigate potential nuisance impacts, such as odor and pests.

Article 18-105 Agricultural Products

The modification to the definition of Agricultural Products is to clarify that Agricultural Products are not only products that may be intended for human or animal consumption or direct use, but rather, products like finished compost, maybe derived as a byproduct of agricultural activities. The amendment to this definition also makes clear that finished compost, as an Agricultural Product, may be retailed wherever permitted in the Code.

TEXT AMENDMENT CRITERIA ANALYSIS

Article 16-100.B contains criteria for amending the text of the Code. Staff finds that these criteria are met in the context of this Docket, as follows:

The existing text is in need of amendment: In order to support the goals of regenerative agriculture and a local circular economy in regard to composting in Boulder County, the Code requires amendment.

The amendment is not contrary to the intent and purpose of this Code: The Boulder County Land Use Code is enacted to protect and promote the health, safety, and general welfare of present and future inhabitants of Boulder County. In conformance with the Code, the proposed text amendment seeks to support the development of local composting opportunities, protect the general welfare through mitigation measures, and limiting the impacts to human and environmental health by establishing appropriate parameters.

The amendment is in accordance with the Boulder County Comprehensive Plan: As proposed, the text amendment does not make changes to the Code that would alter the current Code's consistency with the goals and policies of the Comprehensive Plan (the "Plan"). The proposed modification supports the goals and polices of the Comprehensive Plan, related to responding to climate change, fostering a diverse agricultural economy, advancing sustainability, reducing greenhouse gas emissions, and furthering the goals of zero waste.

PUBLIC ENGAGEMENT

Prior to drafting these regulations, staff held a virtual community listening session on February 16, and invited feedback through an online questionnaire (see Appendix E) that was made available from February 17 to February 24. The feedback that staff received, both at the meeting and in the questionnaire, revealed that there is support in the community to see greater access to composting on farm sites; attendees also expressed concerns over the potential for composting to negatively impact water quality and become odorous and attract pests. The community voiced a desire to see transparency through the amendment process, which staff has committed to and provided status updates for those who have signed up to receive notifications through the Land Use Code Amendments GovDelivery system.

A second virtual community meeting was held on May 18. At this meeting, staff reviewed the proposed text amendments, responded to questions and provided information on the next steps in the process and how the public could participate going forward.

STAFF RECOMMENDATION

STAFF RECOMMENDS THAT THE PLANNING COMMISSION RECOMMEND TO THE BOARD OF COUNTY COMMISSIONERS APPROVAL OF DOCKET DC-23-0002, LAND USE CODE TEXT AMENDMENT RELATED TO COMPOSTING INCIDENTAL TO FARMING and certify the Docket for action to the Board of County Commissioners, which certification includes the approved text of the Docket, and the official record of the Docket before the Planning Commission including staff comments and materials, public testimony, and Planning Commission action/discussion.

DOCKET DC-22-0003: PROPOSED TEXT AMENDMENTS TO ARTICLE 4 Related to Composting Incidental to Farming- Text amendments to the Boulder County Land Use Code related to composting incidental to farming found in the Composting Facility use section 4-506.A and other related Articles and provisions necessary to integrate these changes.

4-506 Industrial Uses

A . Composting Facility

- 1 . Definition: A facility where organic materials are converted into a humus-like material under a process of managed biological decomposition.
- 2 . Districts Permitted: By special review in A and GI
- 3 . Parking Requirements: One space per 1000 square feet of floor area .
- 4 . Loading Requirements: One space per 10,000 square feet of floor area .
- 5 . Additional Provisions:
 - a . ~~Backyard composting and composting incidental to farming operations are exempt from these requirements when:~~
 - ~~(i) None of the materials to be composted are collected on-site from the general public;~~
 - ~~(ii) Materials to be composted are limited to agricultural and yard by products such as plant material and manure;~~
 - ~~(iii) Composted material is not sold retail from the site;~~
 - ~~(iv) The location of the composting is at least 300 feet from any property line if more than 50 cubic yards of material is being composted at any one time; and~~
 - ~~(v) The total amount of active composting material does not exceed 1,000 cubic yards at any one time.~~
 - ~~(vi) No more than 1,500 cubic yards of composted material may be removed from the site in any 36 month period.~~
 - a b. In the General Industrial District, composting and composting incidental to operations are exempt from special use when:
 - (i) Materials to be composted are limited to organic materials;
 - (ii) The location of the composting is at least 300 feet from any property line if more than 50 cubic yards of material is being composted at any one time; and
 - (iii) The total amount of active composting material does not exceed 1,000 cubic yards at any one time.
 - b e. Organic materials include but are not limited to leaves, tree trimmings, untreated wood, shrubby cuttings, or urea.

4-516 Accessory Uses

A. Accessory Agricultural Composting

1. Definition: The conversion of organic materials into a humus-like material (compost) under a process of managed biological decomposition, in a manner customary and incidental to a principal agricultural use.
2. Districts permitted: By right in F, A, RR, ER, T, B, C, LI, GI, and MI zone districts
3. Parking Requirements: None
4. Loading requirements: None
5. Additional provisions:
 - a. Materials which may be collected from off-site are limited to wood and vegetative waste, yard waste, and food waste separated from other waste materials at their origin point.

DOCKET DC-22-0003: PROPOSED TEXT AMENDMENTS TO ARTICLE 4 Related to Composting Incidental to Farming- Text amendments to the Boulder County Land Use Code related to composting incidental to farming found in the Composting Facility use section 4-506.A and other related Articles and provisions necessary to integrate these changes.

- b. The location of the composting must be at least 300 feet from any property line if more than 50 cubic yards of material is being composted at any one time.
- c. The total amount of active composting material shall not exceed 1,000 cubic yards at any one time.
- d. No more than 1,500 cubic yards of composted material shall be removed from the site in any 36-month period.
- e. Any required state and federal licenses and permits shall be obtained from the appropriate regulatory agencies and shall be maintained in good standing.
- f. The location of composting activities must be outside the 100-year floodplain and at least 100 feet from wells and at least 50 feet from streams or other water features.
- g. Best practices to protect storm water quality shall be implemented so that runoff from composting does not leave the property or enter a water body.

Ensuing subsections will be renumbered, accordingly

N. Backyard Composting

1. Definition: The conversion of organic material into a humus-like material (compost) under a process of managed biological decomposition, in a manner customary and incidental to principal residential uses.

2. Districts Permitted: Permitted by right in all zone districts

3. Parking Requirements: None

4. Loading Requirements: None

5. Additional Provisions:

- a. Materials to be composted are limited to yard waste and food residuals typically generated on site.
- b. Composted material shall not be sold retail from the site.
- c. The total amount of compost material shall not exceed 5 cubic yards at any one time.
- d. The location of composting activities must meet the zone district setbacks if more than one cubic yard of material is being composted at any one time.

Ensuing subsections will be renumbered, accordingly

Article 18 Definitions

18-105 Agricultural Products

Products intended for direct human or animal use derived by the cultivation of plants, the rearing of animals, and other activities related to farming, ranching, and agricultural production such as vegetables, fruits, dairy products, eggs, grains, meat, poultry, fish, honey, hay, bedding plants, flowers, herbs, and wool, and finished compost.



Community Planning & Permitting

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BOARD OF COUNTY COMMISSIONERS BUSINESS MEETING

March 21, 2023 at 10:30 AM

All Commissioners' public hearings and meetings will be offered in a hybrid format where attendees can join through **Zoom** or **in-person** at the Boulder County Courthouse, 3rd Floor, 1325 Pearl Street, Boulder.

Authorization under Article 16-100.A of the Boulder County Land Use Code for Text Amendments to the Land Use Code related to composting incidental to farming found in the Composting Facility use section 4-506.A.

Staff: Andrea Vaughn Long Range Planner, Community Planning & Permitting Department
Public testimony will not be taken – action requested

SUMMARY

Staff requests Board authorization to pursue text amendments to the Land Use Code (the Code) related to the Composting Facility use, which is addressed in Article 4-506.A of the Code. The additional provisions of this section exempt composting incidental to farming from the requirements of the Composting Facility use when certain criteria are met. County partners are exploring the advancement of regenerative agricultural practices, particularly through soil restoration projects which rely on compost material to implement. County staff has been informed by farmers who are currently composting that within the composting incidental to farming provisions, there are barriers to implementing composting successfully. The barriers include code language for onsite collection of organic material, as well as the retail sales of the compost made onsite, which are prohibited in Article 4-506.A of the Code. By returning local organic waste materials to the farm for on-site use in compost and sales, agricultural producers can contribute to a local circular economic model that reduces waste streams, as well as increases county resilience to climate change impacts through the improvement of soil health and reduction of greenhouse gas emissions.

Prior to seeking authorization, staff held a public meeting that was attended by approximately 33 people, representing a mix of Boulder County residents and agricultural producers. An online survey was also available for two weeks, where staff received 175 responses. Through this public engagement process, staff has received feedback that the community is supportive of measures that ease burdens on local agricultural producers. When polled, 60% of respondents expressed that they did not have concerns with composting at this small scale, with 60% of respondents stating that they would be interested in participating in a drop off program. In both the community meeting and the questionnaire, participants were asked to express their concerns regarding composting at this scale. Among the majority of respondents that had little to no concerns for this scale of composting on farms, the major themes of concerns that did emerge were related to environmental health, compost quality/contamination concerns, and odor. From mitigation efforts shared by the public, 25% of respondents stated that education surrounding best practices for agricultural producers and the public

Claire Levy County Commissioner **Marta Loachamin** County Commissioner **Ashley Stolzmann** County Commissioner

Appendix B

would help alleviate their concerns related to environmental and human health. An analysis of the questionnaire responses can be found at BoCo.org/CompostingFarming.

The provisions regulating backyard composting and composting incidental to farming operations were first introduced in 1996 and were intended to provide guidance on how composting, when conducted on a small scale, may occur throughout the County. Staff intends to maintain the elements of the Code that ensure composting incidental to farming will remain compatible with adjacent uses and which were intended to mitigate potential impacts of composting. Additionally, the authorization requested does not propose to alter the scale and intensity of use.

Throughout this process, staff is committed to provide transparency to the community by regularly updating the project website with information and opportunities to engage. Additionally, staff will continue to work with Public Health agencies at the state and local level to ensure that the proposed amendments do not conflict with standards that have been set to ensure human health and safety.

Staff intends to update the language related to agricultural and backyard composting in Article 4 (Zoning), 4-506.A, Composting Facility, of the Code to amend the provisions related to accepting material from the public and the retailing of finished compost. Staff will make any other revisions necessary to integrate the changes and some organizational changes and updates to the existing language may also be needed to make the Code easier to navigate and utilize. These changes may include separating backyard composting from agricultural composting and moving these uses to more appropriate sections of the code where they can be accessed more efficiently. The goal of this text amendment is to remove the identified barriers to local regenerative farming efforts and to support a circular economy model for the agricultural community.

ACTION REQUESTED

Staff requests the Board of County Commissioners authorize staff to pursue the text amendments to the Boulder County Land Use Code related to the Composting Facility use as described, specifically changes to Article 4 and any other related Articles and provisions necessary to integrate these changes.

Building Safety & Inspection Services Team

MEMO

TO: Andrea Vaughn
FROM: Michelle Huebner, Plans Examiner Supervisor
DATE: May 8, 2023

RE: Referral Response, Docket DC-23-0002: Land Use Code Text Amendment to 4-506.A
Composting Incidental to Farming Operations

Thank you for the referral. We have reviewed the proposal and have no conflicts with it.

If the applicants should have questions or need additional information, we'd be happy to work with them toward solutions that meet minimum building code requirements. Please call (720) 564-2640 or contact us via e-mail at building@bouldercounty.org



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Docket DC-23-0002: Land Use Code Text Amendment to 4-506.A Composting Incidental to Farming Operations

Request: Review and Comment on the Proposed Boulder County Land Use Code Amendments to Article 4-506.A and related provisions in 4-516 for the provisions related to composting incidental to farming operations and backyard composting.

Date: May 2, 2023

Dear Stakeholder / Interested Party,

On March 21, 2023, the Board of County Commissioners authorized the Department of Community Planning & Permitting to pursue text amendments to Article 4 of the Boulder County Land Use Code, which regulates the exempt provisions related to composting.

Summary of Proposed Changes:

- Relocates the backyard composting and composting incidental to farming exemption provisions from the Industrial Uses classification of the Code and creates new Accessory use categories
- Maintains the existing composting incidental to farming setback requirement, limits on the amount of active composting material, and limits on the material that can be removed from site.
- Removes the prohibition for Accessory Agricultural Composting to collect materials from off site and sale of finished compost and aligns the materials allowed for collection with the Colorado Dept of Public Health & Environments regulations regarding Conditional Exempt Small Quantity composting; requires compliance with State and Federal licensing and permitting as needed.
- Establishes an Accessory Backyard Composting use that which continues to support composting as a residential use and establishes parameters to ensure the use is compatible with neighborhoods.

You may also view the proposed draft text amendments and future revisions online at: boco.org/dc-23-0002

The docket review process for the proposed Text Amendments to Article 4-506.A of the Land Use Code will include a public hearing before the Boulder County Planning Commission and the Boulder County Board of County Commissioners. Public comment will be taken at both hearings. Confirmation of hearing dates and times will be published online at the link above and in local newspapers.

The Community Planning & Permitting staff, Planning Commission, and County Commissioners value comments from individuals and referral agencies. Please check the appropriate response below or send a letter to the Community Planning & Permitting Department at P.O. Box 471, Boulder, Colorado 80306 or via email to avaughn@bouldercounty.org. All comments will be made part of the public record.

Please return responses to the above e-mail address by **May 23, 2023**. Late responses will be reviewed as the process permits.

We have reviewed the proposal and have no conflicts.
 Letter is enclosed.

Signed 5/17/2023 PRINTED Name Anita Riley
Agency or Address CPP - DRT - Access & Engineering



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Date: May 2, 2023

Dear Stakeholder / Interested Party,

On March 21, 2023, the Board of County Commissioners authorized the Department of Community Planning & Permitting to pursue text amendments to Article 4 of the Boulder County Land Use Code, which regulates the exempt provisions related to composting.

Summary of Proposed Changes:

- Relocates the backyard composting and composting incidental to farming exemption provisions from the Industrial Uses classification of the Code and creates new Accessory use categories
- Maintains the existing composting incidental to farming setback requirement, limits on the amount of active composting material, and limits on the material that can be removed from site.
- Removes the prohibition for Accessory Agricultural Composting to collect materials from off site and sale of finished compost and aligns the materials allowed for collection with the Colorado Dept of Public Health & Environments regulations regarding Conditional Exempt Small Quantity composting; requires compliance with State and Federal licensing and permitting as needed.
- Establishes an Accessory Backyard Composting use that which continues to support composting as a residential use and establishes parameters to ensure the use is compatible with neighborhoods.

You may also view the proposed draft text amendments and future revisions online at: boco.org/dc-23-0002

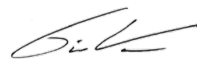
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Please return responses to the above e-mail address by **May 23, 2023**. Late responses will be reviewed as the process permits.

We have reviewed the proposal and have no conflicts.

Letter is enclosed.

Signed  PRINTED Name Tim Carden

Agency or Address Conservation Easement Program, Boulder County Parks & Open Space



Public Health

Water Quality Program

May 31, 2023

TO: Andrea Vaughn, Long Range Planner

FROM: Erin Dodge, Water Quality Program Coordinator

SUBJECT: Docket DC-23-0002: Land Use Code Amendment to 4-516.A and N Composting
Incidental to Farming Potential Water Quality Impacts

Boulder County Public Health (BCPH) – Environmental Health Division has reviewed the submittals for the above referenced docket and has the following comments.

1. **Compost pile setback from a well.** Wells serve as a direct conduit for pollutants to groundwater. Soil treatment area component of an onsite wastewater treatment setback is required to be 100 feet from a well.
 - a. **A. Accessory Agricultural Composting.** We recommend requiring a 100-foot setback from all wells for all compost piles that are maintained on pervious surfaces.
2. **Surface water quality protection.** We recommend maintaining a 50-foot setback from surface water (streams and other water features). Additionally, best management practices can be recommended, such as vegetation buffers between stockpiles and surface waters.
3. **Air quality.** These regulations are in place and enforced by CDPHE, but felt important for consideration and staff awareness during the code amendment process.
 - a. Composting operations are subject to fugitive dust regulations. Dust from piles must be managed to prevent migration off the property. Since these regulations are already in place it does not need to be specified in land use code.
 - b. While this agricultural use is not subject to nuisance odors, large composting operations can be a source of nuisance odors. Utilizing best practices and pile management can often reduce the odors.

This concludes comments from Boulder County Public Health at this time. For additional information on the OWTS application process and regulations, refer to the following website: www.SepticSmart.org. If you have additional questions about OWTS, please do not hesitate to contact HealthOWS@bouldercounty.org.





Public Works Department

TO: Andrea Vaughn, Long Range Planner
Erin Dodge, Public Health Water Quality Coordinator

FROM: Jennifer Keyes, Stormwater Quality Coordinator

DATE: May 26, 2023

SUBJECT: Composting Incidental to Farming Potential Water Quality Impacts

This memorandum was prepared to address potential water quality impacts from compost storage piles. Composting has long been viewed as a beneficial activity improving soil health, reducing erosion, and significantly reducing the volume of trash that ends up in landfills among other environmental benefits. However, to maintain the positive benefits, it is essential that compost storage facilities consider and mitigate any adverse environmental impacts to water quality.

Nutrients, associated with wastewater and waste products, can negatively waterways. Colorado Department of Public Health and Environment (CDPHE) is working to limit nutrients in state waters and has developed Regulation 85, a nutrient management control regulation to specifically address nutrients issues in the State. ([Reg 85](#)). Excessive loading of such nutrients can harm aquatic life and lead to the development of toxic algae or harmful algae blooms, called cyanobacteria or cyanoHABs.

Regulation 85 incorporates nutrient limits to wastewater permits as well as adding nutrient management and outreach requirements to Municipal Separate Storm Sewer System (MS4) permits. Boulder County has a MS4 Permit that applies to the urbanized areas within the County. In these areas, the MS4 permit requires:

- Public education and outreach on stormwater impacts associated with nutrients. The County must reduce water quality impacts associated with nitrogen and phosphorus in stormwater runoff and illicit discharges and distribute educational materials or equivalent outreach to targeted sources (e.g., residential, industrial, agricultural, or commercial) that are contributing to, or have the potential to contribute, nutrients to the waters receiving the discharge authorized under the MS4 permit.
- Pollution Prevention/Good Housekeeping for Municipal Operations associated with nutrients. The permittee must develop and implement a municipal operations program that has the ultimate goal of preventing or reducing nitrogen and phosphorus in stormwater runoff associated with County operations.

Claire Levy County Commissioner **Marta Loachamin** County Commissioner **Ashley Stolzmann** County Commissioner

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Appendix C Public Works Department

The County has met its MS4 permit requirements primarily through outreach and improvements to the County Fairgrounds and through pet waste outreach and waste receptacles; however, it would be beneficial to provide requirements for future composting stockpiles to limit water quality impacts from compost storage piles. Water quality protection can be accomplished at most composting facilities by proper attention to siting and compost pile management. For these reasons, I am proposing the following language be added to the Land Use Code Text Amendment to 4-506.A Composting Incidental to Farming Operations.

- Best practices to protect storm water quality shall be implemented so that runoff from composting does not leave the property or enter a water body.

Many guidance documents recommend including adding a siting requirement to compost stockpiles. Recommended language for accessory agriculture is:

- The compost storage location must be outside the 100-year floodplain and at least 50 feet from drinking water wells, streams, or other water features.

And for backyard is:

- The compost storage location must be outside the 100-year floodplain and at least 50 feet from drinking water wells, streams, or other water features unless compost material is fully contained on all sides.

These are recommendations and are not requirements in the MS4 permit. The County's inclusion of this language as requirements would bolster the County's nutrient management program and commitment to protecting water and drinking water quality. If compost stockpile storage location restrictions are not added to the Land Use Code, it is recommended that a guidance document be created that promotes and educates compost facilities on water quality protection.

References

References on potential negative impacts to water quality from compost stockpiles and recommended siting setbacks may be found below:

- https://www.nrcs.usda.gov/sites/default/files/2022-09/Composting_Facility_317_CPS_9_2020.pdf
- <https://compost.css.cornell.edu/waterqual.html>
- https://scholarworks.wmich.edu/cgi/viewcontent.cgi?article=1792&context=masters_theses
- <https://ir.library.oregonstate.edu/downloads/4x51hj219>
- <https://link.springer.com/article/10.1023/b:wate.0000019932.04020.b6>
- <https://www.ndsu.edu/agriculture/extension/publications/environmental-implications-excess-fertilizer-and-manure-water-quality>
- <https://www.canr.msu.edu/news/compost-handling-in-agriculture-systems-appropriate-storage-options>

Claire Levy County Commissioner Marta Loachamin County Commissioner Ashley Stolzmann County Commissioner

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Appendix C
Public Works Department

- <https://ag.umass.edu/greenhouse-floriculture/greenhouse-best-management-practices-bmp-manual/organic-waste-management>

Claire Levy *County Commissioner* **Marta Loachamin** *County Commissioner* **Ashley Stolzmann** *County Commissioner*

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Appendix D

From: [James Kentling Campbell](#)
To: [!LongRange](#)
Subject: [EXTERNAL] Docket DC-23-0002
Date: Friday, May 5, 2023 1:59:19 PM

Docket DC-23-0002

Please provide a GIS study of how many properties would be impacted by the 300' property line offset. This becomes a meaningless number and update when many of the properties in the zones listed would fail this criteria by size alone (too small).

It is easy to argue a 100' would be appropriate from a sight, smell and 'good neighbor' approach.

James Campbell
5801 Jay Rd

Appendix D

From: [Mikl Brawner](#)
To: [!LongRange](#)
Subject: [EXTERNAL] Farm Composting
Date: Monday, May 8, 2023 3:35:26 PM

I have read the general proposals for allowing a limited volume of composting on Farm and acknowledging compost as an agricultural product and allowing farmers to sell that compost. This is a local solution, helps to repurpose local wastes for building local soils and can help farmers to have compost for their own use and to give some financial support to farmers which they need.

Mikl Brawner
4795 N. 26th St
Boulder
Harlequin's Gardens

Appendix D

From: silleekim@comcast.net
To: [!LongRange](#)
Subject: RE: [EXTERNAL] Proposed Land Use Code Amendments Related to Composting
Date: Thursday, May 25, 2023 3:28:09 PM

Andrea,

Yes, please add my comments to the record. Although the intent for the agricultural use changes is to allow the resale of composted material, all of the restrictions therein apply whether or not such resale occurs. Also, there is nothing I'm aware of in the code that explicitly allows mulching, hügelkultur, and other similar methods in which composting occurs in situ, and distinguishes them from the limitations of this code. Also, there is nothing explicit regarding purchased or donated organic materials such as wood chips used in such methods if the use doesn't fall into the parameters of the resale use case.

I strongly recommend that the code be amended to state that these restrictions do not apply to the use of organic materials when added directly to a growing area (both agriculture and backyard). Otherwise, there is no guidance for zoning enforcement, and no guarantee that a code violation won't be issued for common growing methods. Also, the code should allow temporary storage of such organic materials after collection prior to application to the fields.

I would like to collect donated wood chips, in volumes greater than 50 cubic yards, and apply them directly to our fields for mulching, and the code, both as written and as proposed, would seem to disallow it, or at least be ambiguous. How can you assure me that we won't be issued a zoning violation for this, if there is nothing explicit in the code distinguishing it from these limitations? Our farm is less than 600 feet by 600 feet, and we have no intention of reselling compost, but I want it to be crystal clear that our methods, which conserve water, store carbon, and otherwise align with Boulder County goals, are permitted.

Mike

From: !LongRange <longrange@bouldercounty.org>
Sent: Thursday, May 25, 2023 2:54 PM
To: silleekim@comcast.net; !LongRange <longrange@bouldercounty.org>
Subject: RE: [EXTERNAL] Proposed Land Use Code Amendments Related to Composting

Good morning Mike,

I apologize for the delay in my response. I wanted to be sure to research some of the issues, including the zoning violation that you had referenced, before providing a response. I have provided the responses below, in the email you had provided, for clarity. Please see my responses below in **blue**. In my response, I often reference the current code provisions in 4-506.A, which can be found [here](#).

Please reach out if you have any further questions.

Appendix D

From: silleekim@comcast.net
To: [!LongRange](#)
Subject: [EXTERNAL] Proposed Land Use Code Amendments Related to Composting
Date: Thursday, May 18, 2023 11:28:24 AM

The proposed amendment specifies that if there is any agricultural composting greater than 50 cubic yards it must be located at least 300 feet from any property line. This restriction specifically prevents such composting on any property less than 600 feet wide or 600 feet long. Can you please clarify whether that is your intent? If not, please update the amendment to clarify the intent.

Also, can you please clarify in the amendment that composting does not include any composting incidental to agricultural uses, such as organic mulching or hügelkultur farming methods? These types of methods can easily add up to 50 cubic yards. These are very important methods of farming for carbon storage, water management, etc. For example, the 50 cubic yards would be met by a 25x25 foot hügelkultur bed with two feet of organic material. It would also be met by using wood chip mulch at a depth of four inches on a 4000 square foot field. Unless explicitly called out as exceptions in the code, these types of methods could be completely banned on small lots, and banned within 300 feet of the property line for larger properties. This would be completely contrary to Boulder County's environmental goals.

Please, please, update the proposal to clarify the intent for small lots and to clarify that the code does not apply to composting of organic material within agricultural fields. Even if it is not your intent to affect such practices, Boulder County code enforcement has a documented history of applying composting rules to such practices. See <https://www.dailycamera.com/2017/09/25/boulder-county-shuts-down-nederland-area-composting-project/>

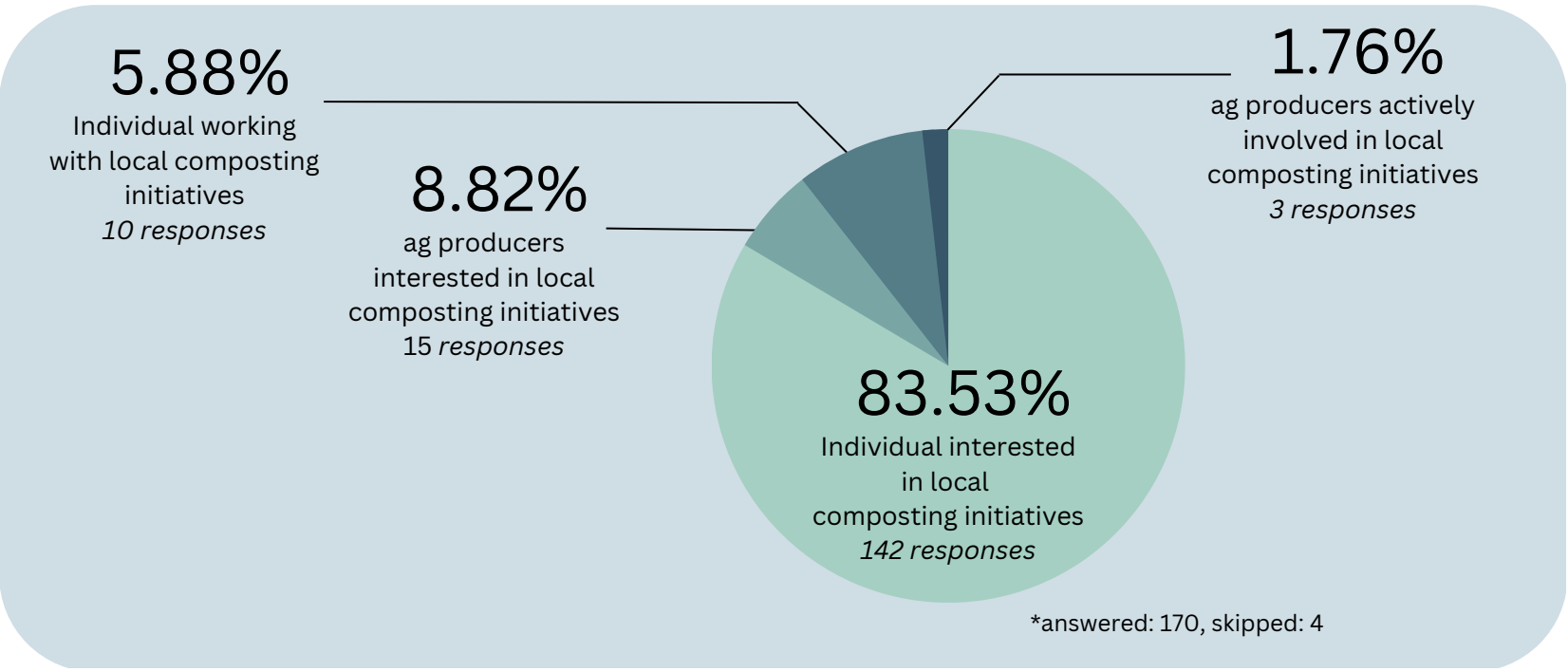
I also note that the backyard composting changes have a similar issue. An 8x10 hügelkultur bed or 20x20 mulched garden would meet or exceed the 5 cubic yards allowed, and setbacks would prevent such beds near any property line. It would also prevent the use of donated or purchased wood chips or other materials for these beds.

If you are not going to clarify these issues, please document my strenuous objection to this policy.

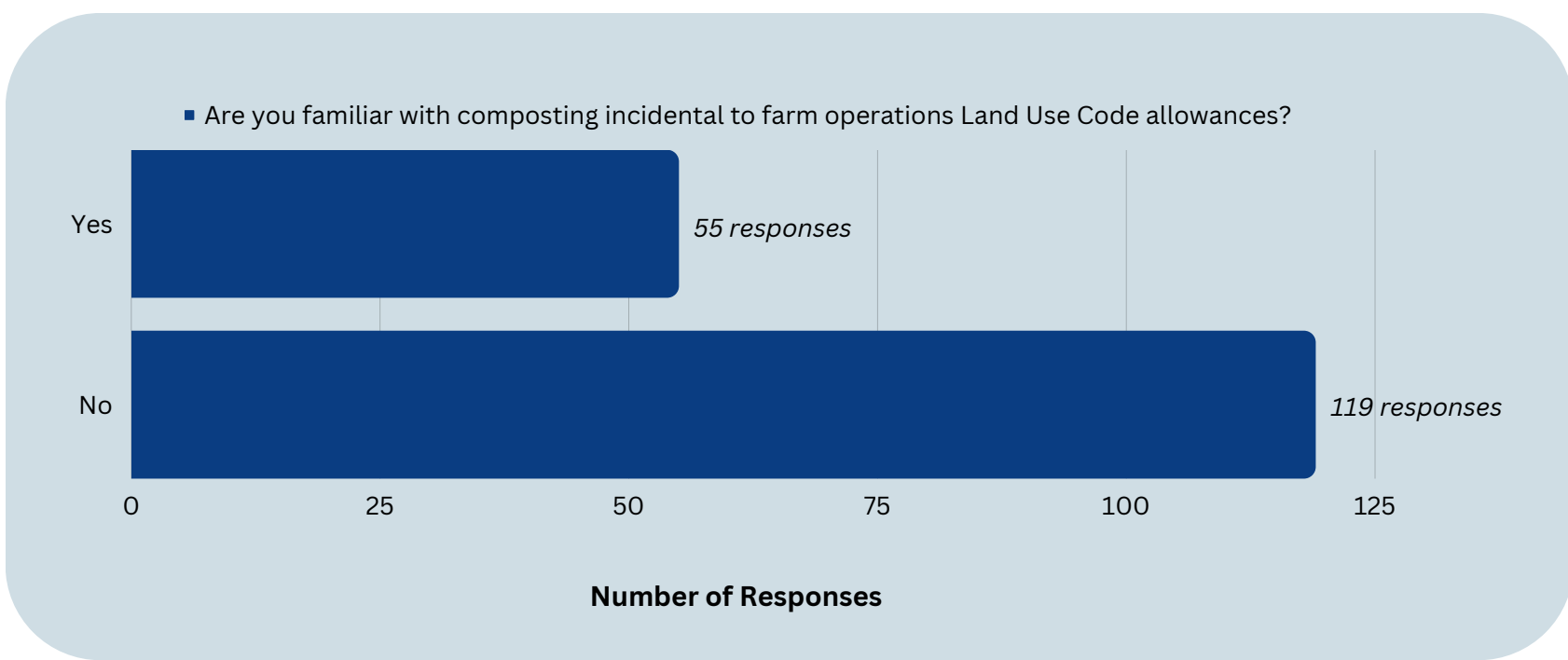
Mike Ellis
1221 Red Ash Ln
303-641-5587

ONLINE QUESTIONNAIRE FEEDBACK

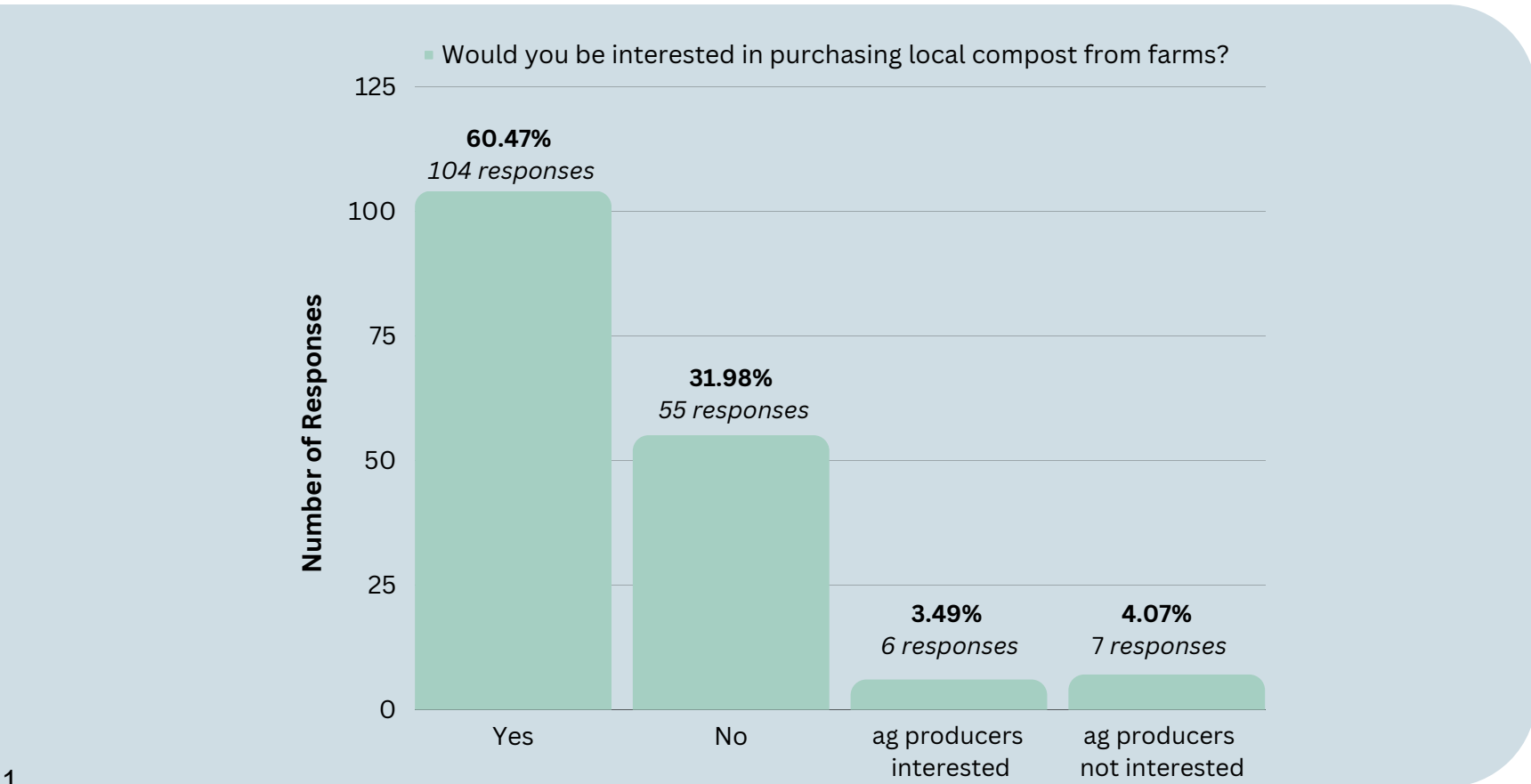
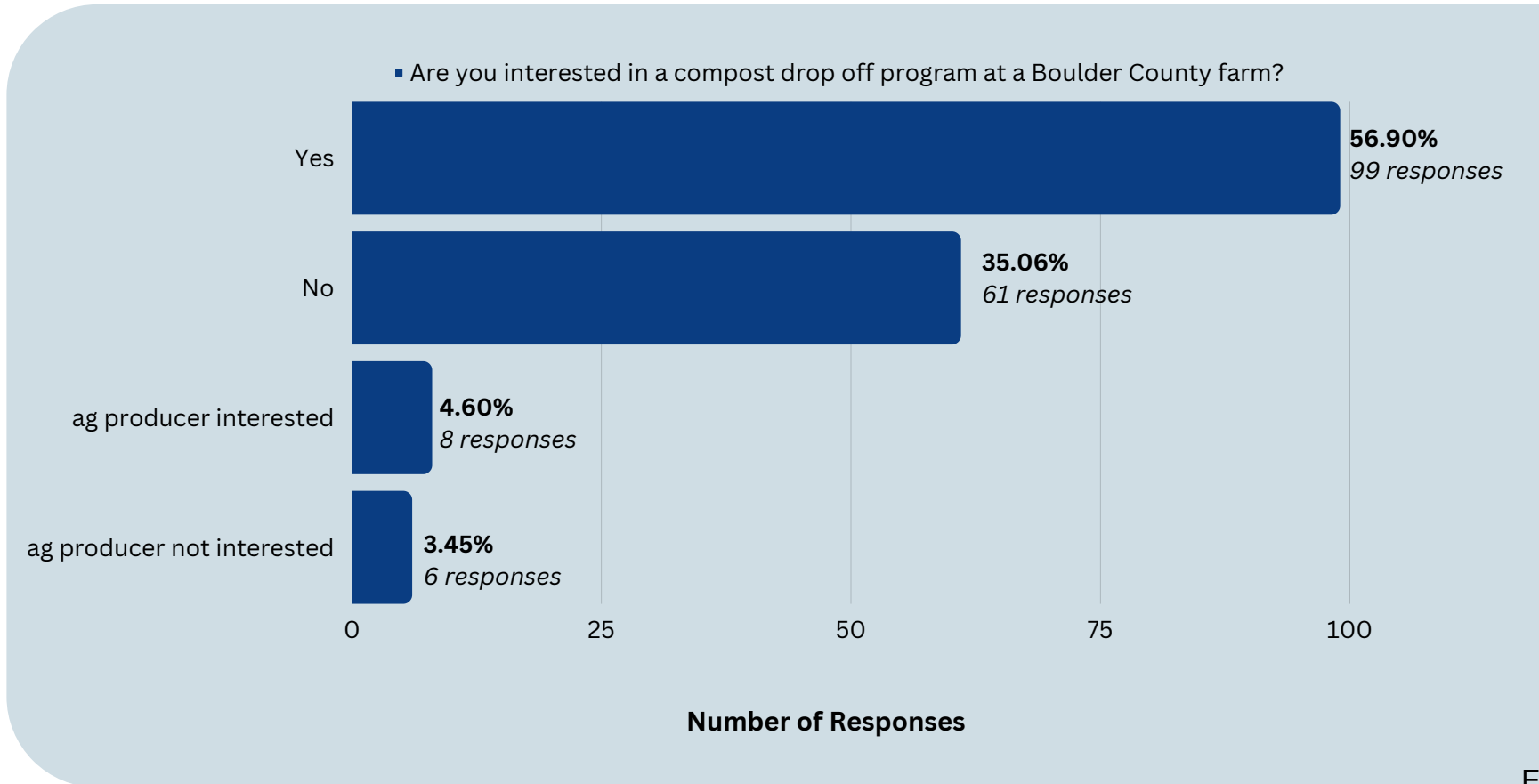
TYPES OF RESPONDANTS



LAND USE CODE FAMILIARITY



INTEREST IN COMPOST INCIDENTAL TO FARMING INITIATIVES



ONLINE QUESTIONNAIRE FEEDBACK

CONCERNS & MITIGATION

What concerns do you have regarding composting on farms?

Major Themes



Environmental health

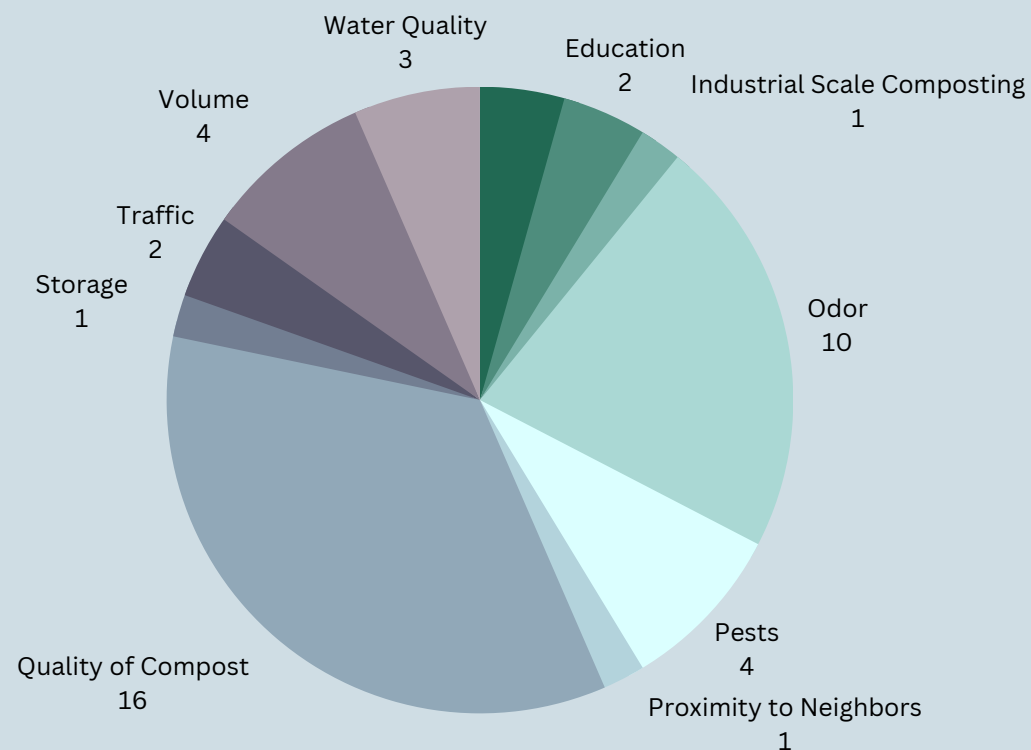


Odor

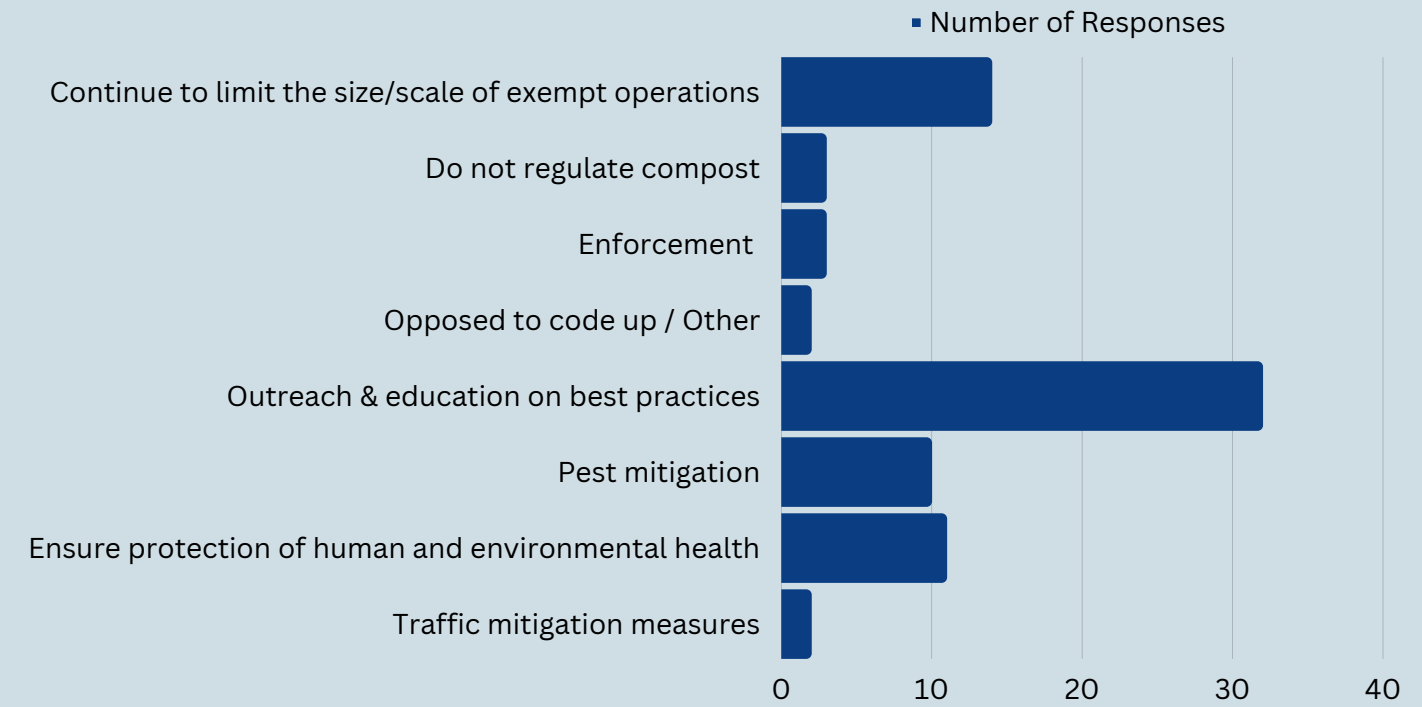


Compost Quality / Contamination

Number of Responses Per Concern Theme



What would alleviate concerns related to on-farm collection of organic matter from the public?



Number of responses regarding concerns of composting on farms

