



FRWD
Front Range
Waste Diversion

TOWN OF BENNETT FINAL REPORT

April 2024



PROJECT OVERVIEW



Conduct a feasibility study for developing a community composting program with a local regenerative farm or alternative regional composter.

SUMMARY OF ACTIVITIES

Item	Completed
#1 MOU Agreement	11/3/2023
#2 Kick Off	11/14/2023
#3 Determine Composting Requirements	01/22/2024
#4 On-Farm Meeting with Grafted Yoke Farm	12/18/2023
#5 East Regional Landfill	01/22/2024
#6 Town of Bennett Meeting	01/23/2024
#7 Community-Wide Survey Questions	02/05/2024
#8 Final Report	03/26/2024

KEY ENTITIES

Town of Bennett

- Population: 3,295
- Adams and Arapahoe County
- No current composting services

Grafted Yoke Farm

- Small Regenerative Vegetable Farm
- 10-acre property
- Located in unincorporated Adams County

East Regional Landfill

- Managed by Republic Services
- Operates a food scraps/yard waste composting facility
- Hauls organics from nearby Denver International Airport

TASP Team

- Resource Recycling Systems (RRS)
- EcoCycle
- Compost Queen

KEY FINDINGS

Permit

- A small-scale compost operation at Grafted Yoke Farms would most likely be considered a Conditionally Exempt Small Quantity (CESQ) processor. State regulations explicitly have a classification for Conditionally Exempt Small Quantity (CESQ), Adams County regulations do not include CESQ.
- The lack of alignment between state and county regulation is a challenge for small scale processing. Bennett should consider collaborating with the County to discuss opportunities to align county and state regulations.

Site Options

- Grafted Yoke Farm may be a viable option in the future, however permitting is a significant barrier to near term success. *Not feasible in near term due to permitting issues, may be feasible in future.*
- East Regional Landfill (<10mi one way) is a privately owned / operated Class III compost processor. A public drop off serviced by a private hauler can effectively transport materials to East Regional Landfill for processing. *Feasible in the near term if Bennett is interested in managing a public site.*

Next Steps

- Bennett will use the survey questions developed under this project to gather an understanding of the residents' interest and understanding of composting.
- Town of Bennett staff and East Regional Landfill connect to discuss feasibility of incorporating a food scraps collection point for residents.
- Town of Bennett and Grafted Yoke Farm to reassess options once the farm has expanded their business model to include Farmers' Markets and conducted a training course in 2025.
- Prior to any pilot, extensive and consistent messaging about composting is recommended to minimize contamination.

RECOMMENDATION

Deploy the community-wide survey to assess residential interest in participating in a food scraps collection program.

Continue conversations with East Regional Landfill and Grafted Yoke Farm dependent on the interest voiced from the community.

Determine what role Town of Bennett would like to play in supporting local food scrap composting options for residents.



FINDINGS

Activity 3-7

TOWN OF BENNETT SUMMARY

Population: 3,295

Households: 1,054

Located in Adams
and Arapahoe
Counties

Denver International
Airport: 25 minutes

Trash and Recycling
Collection: Open
Market

Organics Collection
Services: None
available (including
curbside collection
and drop off)

Approximately 5.4
square miles

COMPOST REQUIREMENTS - ACTIVITY 3

State

- Grafted Yoke Farm would likely be classified as Conditionally Exempt Small Quantity (CESQ) site.
- Classification allows processing up to 100 cubic yards of Type 1 (vegetative) and 20 cubic yards of Type 2 (animal, manure, source separated organics, food residuals, and food processing vegetative waste) materials onsite.
- Commercial operations must maintain records of feedstock, submit annual reports, and conduct sample/testing of finished compost.

County

Two permitting pathways exist in Adams County.

- 1) Special Use Permit
- 2) Commercial Composting standards.

Option 1 is for non-permanent activities (lasting less than 5 years). The permit cost is \$1,000. Additional conversations will be needed with Grafted Yoke Farm and Adams County to confirm this pathway because it is case dependent. Considering the time limit (5 years), Grafted Yoke Farm would want to discuss this pathway with Adams County first.

Option 2 is cost and resource prohibitive for small scale composters. It is not recommended for Grafted Yoke Farm to pursue option 2. Memo “Activity #3: Composting Requirements” details this further.

Bennett, Grafted Yoke, and Adams County should consider collaborating to discuss whether the county is open to adopting composting regulations than mirror the state level permitting classifications and regulations.

Local

The Town of Bennett’s code requirements for refuse, garbage transportation and trash enclosures will not apply to Grafted Yoke Farm, as it is in the unincorporated region of Adams County.

The code typically relates to entities involved in material collection, such as haulers or drop-off enclosures. Memo “Activity #3: Composting Requirements” details these codes further.

If a drop-off site is piloted, the site will be subject to these code requirements.

GRAFTED YOKE FARM - ACTIVITY 4

- A site visit on December 18, 2023, involved the Front Range Waste Diversion Technical Assistance Service Provider (TASP) team, Town of Bennett staff, and a compost expert to assess the farm's feasibility for composting.
- Grafted Yoke Farm currently runs a Community Supported Agriculture with 30 residents and is contemplating producing on-site compost to help off-set high costs for finished compost.
- While the physical location and set-up is well suited for composting, key challenges include additional educational, startup costs, and County requirements for processing facilities.
- Colorado Department of Agriculture allows for composting of materials generated on-site. This initial step could help Grafted Yoke Farm expand understanding and comfort with composting.
- Memo Activity #4: Summary of Meeting with Grafted Yoke Farm includes additional details for composting best practices and siting at Grafted Yoke Farm.



FINDINGS: Pending a successful permitting process and additional training, Grafted Yoke Farm is well-suited for food scraps composting. However, due to permitting issues, a drop-off food scrap composting operation is not feasible at Grafted Yoke in the near term.

EAST REGIONAL LANDFILL



- Republic Services owns and operates the landfill.
- Processes 3,233,767 annual of tons of industrial and municipal waste at their landfill.
- Distance from Landfill to Town of Bennett Town Hall: 9.6 miles, 15 minutes
- The landfill currently accepts food scraps and yard waste for composting (permitted class III) but expressed reluctance to include compostable plastics due to contamination concerns.
- The estimated tipping fee for food scraps currently (March 2024) ranges from \$60-\$100 per ton, with a two-ton minimum service. Since the proposed food scraps would be transported to the landfill, this minimum service is not applicable.
- Operates Monday-Friday 7:00am-4:30pm

EAST REGIONAL LANDFILL - ACTIVITY 5

TASP team met with the Landfill to explore their capacity and interest for receiving source-separated food scraps from the Town of Bennett.

- Republic Services, who manages the landfill, is supportive of composting in Bennett.
- Preference would be to initiate a pilot program with a sample of residents (30-100 homes) for source separated food scraps.
- Not open to direct drop-offs at the landfill but accommodating to collecting aggregated residential food scraps services at a drop-off located elsewhere.
- Republic Services may be able to provide the container(s) for a drop-off collection point. Although future exploration for existing routes is needed.
- Emphasis on robust outreach and education was expressed to reduce contamination.

FINDINGS: It is feasible for East Regional Landfill to accept organic materials from Bennett if this material was aggregated in town at a collection point and transported to the landfill.

TOWN OF BENNETT MEETING - ACTIVITY 6

- TASP met with Town of Bennett staff on January 31, 2024. The team summarized the findings of the research and discussed the objectives of the community-wide survey.
- Upon review of the findings, the team decided to meet with Grafted Yoke Farm to evaluate their interest in pursuing organics composting. A follow up meeting was scheduled for February 12, 2024, with the owner of the farm.
- When discussing the feasibility of initiating the permitting process and attending the upcoming US Composting Council Compost Operations Training Course, the owner advocated to wait until 2025 to pursue this further. There is interest in composting, but the training overlaps with peak growing season (June) and Grafted Yoke Farm would like to learn more about operating a compost site before accepting off-site material.

COMMUNITY-WIDE SURVEY QUESTIONS - ACTIVITY 7

TO: TOWN OF BENNETT
FROM: RRS
DATE: FEBRUARY 1, 2024
RE: PRIMARY ACTIVITY #7 - DRAFT SURVEY QUESTIONS

The questions below are intended to gather the interests of Town of Bennett's residents in participating in an organics collection program.

The Town of Bennett is seeking your input on current efforts and interests in increasing composting efforts in the town. By completing this survey, you help Bennett consider a program that will provide the most benefit and likelihood for success. Your insights are crucial to the process. Thank you for taking the time to share your thoughts.

Current Practices:

- a. Are you familiar with the process of composting? Composting is the natural process of recycling organic matter, such as leaves and food scraps, into a valuable fertilizer that can enrich soil and plants.

Very unfamiliar, somewhat unfamiliar, neutral, somewhat familiar, very familiar

- b. Does your household currently compost yard debris, such as grass, leaves, prunings and small branches?

Yes, no

- c. Does your household currently compost any food scraps, such as fruit and vegetable trimmings, egg shells or coffee grounds?

Yes, no

- d. How many people live in your household?

- e. According to a MITRE-Gallup study, U.S. households produce about 6 cups of food scraps per week. How many cups per week do you estimate your household generates for food scraps?

1-3, 3-6, 6-8, 10+

- f. How familiar are you with the concept of yard waste and/or food scrap collection or drop-off programs? Many communities across the country offer services for residents to begin composting. These services may include aggregated collection points where residents may bring the acceptable material, or hauling services that collect organic matter from residents.

Very unfamiliar, somewhat unfamiliar, neutral, somewhat familiar, very familiar

Interest and Motivation:

- a. Would you be interested in participating in a compost/food scrap collection or drop-off program?

Not interested, somewhat interested, neutral, somewhat interested, very interested

- The survey was designed to gather input from residents of the Town of Bennett regarding their current composting practices, interest, motivations, and preferences for a potential composting program.

- Example questions:

1) *Are you familiar with the process of composting? Composting is the natural process of recycling organic matter, such as leaves and food scraps, into a valuable fertilizer that can enrich soil and plants.*

Very unfamiliar, somewhat unfamiliar, neutral, somewhat familiar, very familiar

2) *Would you be interested in participating in a compost/food scrap collection or drop-off program?*

Not interested, somewhat uninterested, neutral, somewhat interested, very interested

3) *How much would you pay weekly for drop off compost?*

Up to \$15, up to \$25, up to \$30, up to \$40, none

Note: Project plan did not include budget to deploy the survey or conduct the analysis. It only included the development of the survey questions.

NEXT STEPS/ RECOMMENDATIONS

- Town of Bennett will send community-wide survey to residents in 2024 to understand community interest in participating in a composting program.
- Grafted Yoke Farm will pursue an educational course, such as Certified Operations Training Course (COTC) led by US Composting Council. While COTC is not a requirement for CESQ sites, Grafted Yoke would like to pursue training before accepting off-site material.
- Town of Bennett and Grafted Yoke Farm will reassess once the farm has expanded their business model to include Farmers' Markets and conducted a training course in 2025.
- Town of Bennett to pursue conversations with East Regional Landfill to identify where a collection point for food scraps could be located for residents who opt-in.
- The appendix includes details on staffing, costs, and siting of a potential collection points for organics. If Bennett is interested in managing a public drop-off, staff should consider applying for a FRWD grant of \$10,000, which, if awarded, can help cover the costs for initial set up, marketing, and one year of service.



DEVELOPED PROJECT MATERIALS

- Activity #2: Kick Off Meeting Slide Deck
- Activity #3: Composting Requirements
- Activity #4: Summary of Meeting with Grafted Yoke Farm
- Activity #5: Summary Discussion with East Regional Landfill
- Activity #6: Slide Deck for Summary of Findings
- Activity #7: Community-wide Survey Questions



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Contact TASP

PROJECT MANAGER

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<https://www.coloradofrwd.org/>

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APPENDIX







Potential Scenario: PHASE I FOOD SCRAP COLLECTION POINT- DESIGN BASICS



City of Knoxville Compost Program

- Located at point in town, common collection points include transfer stations, community buildings, or recreation centers.
- Site 3 to 4, 64-gallon wheeled and lidded carts.
- Ensure the area has signage on YES/NO items, and the carts have locks.
- Residents pay an annual fee for access and receive the code to the locks.
- Town of Bennett contracts with a hauler to collect the carts once per week to haul material to the East Regional Landfill.

PHASE I FOOD SCRAP COLLECTION POINT-IMPLEMENTATION

- ✓ Complete community-wide survey to gauge initial interest and estimate participation
-  Determine site for aggregated food scraps from residents
-  Contact local haulers to secure hauling partner, i.e., Republic Services
-  Town buys carts and equipment (Consider FRWD grant to purchase equipment)
-  Conduct outreach to solicit resident participation
-  Mitigate contamination by developing signage and adding YES/NO stickers to carts
-  Monitor carts weekly with lid-flips to pinpoint contamination

PHASE I FOOD SCRAP COLLECTION POINT-COSTS



Charleston's Food Scrap Drop Off

Costs		
	Low	High
Capital Costs (signs, carts, stickers, locks)	\$ 2,000	\$ 3,000
Marketing	\$ 2,500	\$ 3,250
Service costs	\$ 600	\$ 1,080
TOTAL COST	\$ 5,100	\$ 7,330

Staffing	
Set-up	40 hours (one time)
Marketing and Outreach	20 hours (annually)
Monitoring	4 hours (per week on-going)
TOTAL TIME	~0.1 FTE

Estimated Diversion		
	Low	High
Number of households	3%	5%
Pounds per week	75	125
Pounds per year	3900	6000
TONS PER YEAR	1.95	3.25

PHASE II FOOD SCRAP COLLECTION- GRAFTED YOKE FARM



Grafted Yoke Farm

Upon completion of the Compost Operations Training Course, or similar, the Town of Bennett can continue to support Grafted Yoke Farm.

- 1) Encourage Grafted Yoke Farm to start small, composting on-site material only.
- 2) Organize and facilitate conversation with Adams County to discuss permitting options for Grafted Yoke Farm.
- 3) If/when Grafted Yoke Farm can collect off-site material, the Town of Bennett can support outreach and provide carts and signs for collection point. Depending on timing, this may be included in the initial grant request to support Phase I of the pilot.



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FRONT RANGE WASTE DIVERSION TECHNICAL ASSISTANCE SERVICE PROVIDER (TASP)

PROJECT KICK-OFF: BENNETT

November 14, 2023



AGENDA

- Project Review and Background
 - *Goal: This project will conduct a feasibility study for developing a community-composting program with a local regenerative farm or alternative in-town or regional composter. The project serves to evaluate an organics diversion program as a potential first step in the Town's waste diversion offering.*
- Timeline Review
- Next Steps

TIMELINE

Activity	Date	Lead/Status/Notes
Agreement between RRS and Bennett	November	Complete
Kick off meeting	November	In-progress
Composting Requirement Research	November-December	RRS and Bennett
On-site Meeting with Grafted Yoke Farm	December	RRS and Compost Queen
Virtual Meeting with East Regional Landfill	December	RRS
Town of Bennett Debrief	December	RRS and Bennett
Framework of Survey Questions	December	RRS
Final Report Slide Deck	January	RRS
Presentation to Town Board of Trustees	January	RRS and Bennett

YOUR GOALS/BACKGROUND

- What is a successful outcome?
- Any predictions for roadblocks or hurdles?
- History with Grafted Yoke Farm

COMPOSTING REQUIREMENTS

- RRS to identify:
 - On-farm compost operations permitting requirements
 - On-farm compost operations regulations
- Town of Bennett to lead:
 - Local composting regulation and permitting requirements
 - County composting regulation and permitting requirements
 - Local zoning requirements
- Next Steps:
 - What support do you need?
 - Timeline for gathering the information above

GRAFTED YOKE FARM

- Town of Bennett to lead:
 - What is the status currently?
 - When is the preferred meeting time?
 - Would the town like to participate in the on-site meeting?
- Next Steps:
 - Introduction from Bennett between Grafted Yoke Farm and RRS to set-up meeting
 - Meeting tentatively week of December 16th

OUTPUTS

- Final Report Slide Deck
 - a. Summary of applicable regulations
 - b. Summary of on-farm meeting
 - c. Summary of landfill meeting
 - d. Feasibility assessments
 - e. Community-wide survey questions
 - f. Recommendation(s)

- Presentation to Town of Bennett Staff



THANK YOU & QUESTIONS

EMAIL

FrontRangeTASP@recycle.com

PHONE: 720.213.6619

TO: TOWN OF BENNETT
FROM: RRS
DATE: JANUARY 10, 2023
RE: PRIMARY ACTIVITY #3 - REGULATORY EVALUATION

This research examines Colorado's composting regulations with the intention of informing the Town of Bennett how the community may begin composting food scraps with a local on-farm composting partner. This memo aims to identify key aspects for permitting and regulating compost sites designated for food scraps processing, and includes state, county, and local regulations. The research specifically focused on the regulations that would apply to an on-site composting operation at Grafted Yoke Farms (46650 Oak Park Dr. Bennett, CO). This research was conducted under the Front Range Waste Diversion (FRWD) Technical Assistance Service Provider (TASP) program.

Summary of Findings

The relevant state, county, and local regulations relevant to a composting operation at Grafted Yoke Farm include the following:

State Regulations: Initial evaluation of the Grafted Yoke Farm composting operation indicates it would most likely fall under the Conditionally Exempt Small Quantity (CESQ) composter classification. A CESQ site must register with CDPHE and can process up to 100 cubic yard of Type 1 onsite or in process with up to 5 cubic yards of Type 2. If operating commercially, the site must also keep records of feedstock types and quantities, report annually, submit a closure report if ceasing operations and sample / test finished compost.

County Regulations: Processing food waste in Bennett, Colorado requires adherence to Adams County Board of Commissioners' Development Standards and Regulations. Research suggests there are two permitting pathways that could be used to regulate an on-site composting operation. The easier pathway is for the site to obtain a Special Use Permit. The second option, following the county's Commercial Composting standards, requires significant investments in time, planning, and money, and while technically feasible, would be operationally prohibitive.

Local Regulations: Town of Bennett has code requirements for refuse¹, transporting garbage², and trash enclosures³. However, because Grafted Yoke Farm is in the

¹ library.municode.com/co/bennett/codes/municipal_code?nodeId=CH7HESA_ARTIIIIRE

² library.municode.com/co/bennett/codes/municipal_code?nodeId=CH7HESA_ARTIINU_S7-2-90TRGAMA

³ library.municode.com/co/bennett/codes/municipal_code?nodeId=CH16LAUSDE_ARTIIZO_DIV7LAST_S16-2-730SCSI

unincorporated region of Bennett, these codes will likely not apply. These codes would apply to the entities which are collecting the materials (i.e., hauler or drop off enclosure).

State Regulation Details

The Colorado Department of Public Health and Environment (CDPHE) is charged with the permitting, enforcement, and oversight of solid waste management, including organics processing. This responsibility includes the enforcement of Section 14 of the state regulations related to the oversight of commercial compost facilities⁴. A commercial compost facility is defined in Colorado as a facility that ‘accepts a fee for solid waste composting, or any solid waste composting facility that composts solid waste to create a compost or soil amendment and distributes the compost’.

The regulatory structure and permits are based on the **defined feedstock types** and processed **volumes**. The state statutes define source separated organics as compostable material separated at the point of generation ‘including but not limited to yard waste, food residuals, vegetative waste, woody materials, and compostable products. Green waste includes ‘yard waste, vegetative plant wastes from the vegetable food processing industry, untreated wood wastes, paper products and pre-consumer vegetative food waste’.

Feedstocks are classified as:

- **Type 1:** Vegetative waste
- **Type 2:** Animal waste, manure, source separated organics (SSO), food residuals, and food processing vegetative waste.
- **Type 3:** Biosolids, mixed solid waste, processed solid waste and sludges, and food processing residuals not included in Type 1 or 2.
- **Agricultural Waste:** All discarded or residual plant or animal materials directly resulting from the raising of crops or animals, including animal manures, that are applied to the soils as fertilizers, soil conditioners, or compost, are composted and applied to the soils or used for other agricultural purposes. Includes animal carcasses resulting from any mass livestock mortality.

Initial evaluation of the Grafted Yoke Farm composting operation indicates it would most likely fall under the Conditionally Exempt Small Quantity (CESQ) composter classification. A CESQ site must register with CDPHE and can process up to 100 cubic yard of Type 1 onsite or in process with up to 5 cubic yards of Type 2. If operating commercially, the site must also keep records of feedstock types and quantities, report annually, submit a closure report if ceasing operations and sample / test finished compost.

⁴<https://www.sos.state.co.us/CCR/GenerateRulePdf.do?ruleVersionId=8857&fileName=6%20CCR%201007-2%20Part%201>

There are several proposed updates to Section 14⁵, the state regulations related to the oversight of commercial compost facilities, that will impact future compost processors in the state. If the proposed revisions are approved, rule implementation is expected to be April 2024. Table 2 presents the current classifications, feedstock materials, and key regulations included permitted volumes, along with proposed 2024 changes. In summary, CDPHE states that the proposed regulatory changes would:

- Increase the volume of Type 2 material that Conditionally Exempt Small Quantity Composting Operations can manage.
- Create increased opportunities for composting source separated organics and food residuals under the Class I designation.

Table 1: Compost Facility Classifications

Classification	Material	Size & Regulations
Class I	Type 1	<ul style="list-style-type: none"> - Less than 50,000 cubic yards of feedstock onsite (not including finished compost) OR - Compost SSO and food residuals generated together with less than 5,000 cubic yards of SSO onsite and composting area less than 2 acres in size* - Also includes composting at the site of generation or an agricultural zoned property that does not meet the regulatory exemptions for permitting <p><i>*Proposed change of Composts Type 1 feedstocks, source separated organics, food residuals and food processing vegetative waste, and has no more than 5,000 cubic yards of feedstocks and in-process materials onsite at any one time. In addition, Each Class I compost facility operating under Section 14.2.1(B) and 14.2.1 (C) must have at least one operator complete a certified operator training.</i></p>
Class II	Type 1 & Manure	<ul style="list-style-type: none"> - Process Type 1 feedstocks and manure and have less than 50,000 cubic yards onsite at any one time
Class III	Type 1, 2 and/or 3	<ul style="list-style-type: none"> - Can include any feedstock material types - Most stringently regulated class in the state
Conditionally Exempt Small Quantity (CESQ) Compost Operations	Type 1 and/or Type 2	<ul style="list-style-type: none"> - Must register with CDPHE, if operating commercially - Up to 100 cubic yard of Type 1 onsite or in process with up to 5 cubic yards of Type 2** - If operating commercially, must keep records of feedstock types and quantities, report annually, submit a closure report if ceasing operations and sample / test finished compost. <p><i>**Proposed change to 20 cubic yards of Type II</i></p>

⁵ cdphe.colorado.gov/hm/sw-proposed-rulemakings-stkh-proc

CDA Facilities - Generally Exempt	On-Site Agricultural Waste	<ul style="list-style-type: none"> - Must register with the CDA - Finished compost distributed off-site meets the specifications for compost established by the CDA
CDA Facilities - Conditionally Exempt	On-Site Agricultural Waste & Imported Wood, Leaves, Lumber	<ul style="list-style-type: none"> - Must register with CDA; comply with all requirements / specifications - Using imported wood chips, tree branches, sawdust, leaves, or untreated lumber occurs in quantities necessary for effective composting - Storage of these imported materials is limited to nine months - Finished compost can only be used on agricultural zoned property

County Regulations

Processing food waste in Bennett, Colorado requires adherence to Adams County Board of Commissioners' Development Standards and Regulations. Research suggests there are two permitting pathways that could be used to regulate a CESQ on-site composting operation. The easier pathway is for the site to obtain a Special Use Permit. The second option, following the county's Commercial Composting standards, requires significant investments in time, planning, and money, and while technically feasible, would be operationally prohibitive. This is particularly true for a small composting operation that would fall under the state's CESQ classification. The County also offers a Conceptual Review Process to simplify the regulatory process before submitting a permit application⁶. The associated fee for this review is \$600, ensuring Grafted Yoke Farm complies accurately with the required permit. The two permitting options are presented below:

Special Use Permit

One potential avenue is to pursue a **Special Use Permit**⁷, which applies to non-permanent activities (lasting less than five years) that support other authorized land uses in a zone district or public utilities/services. This option could be viable for Grafted Yoke Farm. There is the possibility that additional permitting pathways could emerge within this initial timeframe. The associated permit fee for this route is \$1,000. The process and requirements for obtaining a Special Use Permit are outlined below.⁸

2-02-12-05 SPECIAL USE PERMIT REVIEW STEPS

1. Conceptual Review: Optional, unless the County Manager or his or her designee waives this requirement.
2. Neighborhood Meeting: Optional, unless the County Manager or his or her designee determines the development proposal could have significant neighborhood impacts.
3. Development Application Submittal: All items or documents required for special use permits requiring a public hearing as described in the development application submittal

⁶ epermits.adcogov.org/sites/default/files/2023-05/conceptual-review-meeting.pdf

⁷ epermits.adcogov.org/sites/default/files/2024-01/special-use-permit.pdf

⁸ adamscounty.municipalcodeonline.com/book?type=temp#name=2-02-12-05_SPECIAL_USE_PERMIT_REVIEW_STEPS

requirements shall be submitted to the County Manager or his or her designee at least thirty (30) days prior to the first unfilled Board of Adjustment public hearing agenda.

4. Determination of Sufficiency: Applicable. No application shall be processed if taxes due are not paid.
5. Staff Report: Applicable.
6. Notice: Applicable. However, published notice is not required.
7. Public Hearing: Applicable. A public hearing shall be held before the Board of Adjustment.
8. Standards: Applicable.
9. Conditions of Approval: Applicable. The Board of Adjustment in approving a special use permit may attach any conditions necessary to implement the Adams County Comprehensive Plan and to ensure compatibility with adjacent uses. In addition to other conditions the Board of Adjustment may place on a special use permit, the Board of Adjustment shall specify the term of the special use permit. The term of a special use permit shall be limited to the absolute minimum term necessary for the proposed use, but in no case shall any one special use permit exceed five (5) years. A special use permit may be renewed following the same procedure used in granting the initial permit, but any specific special use shall not exceed five (5) years cumulatively. The Board of Adjustment in approving a special use permit may condition the approval on one (1) or more of the following:
 - A requirement the development or activity proceeds in accordance with a specific site plan and/or development schedule.
 - A requirement the design and mitigation measures be put in place including, but not limited to, limits on the hours of operation and traffic generating uses; improvements to on-site and off-site pedestrian, bicycle, and vehicular circulation; alternative access and open space provisions to address site capacity and resource protection issues; controls on noise, light, odors and other potential nuisances; measures to protect and improve the aesthetic value of high traffic areas; aesthetic value of high traffic areas; requirements to protect air and water quality; construction of fencing and planting of landscaping; restrictions on signage and outdoor lighting; changes in off-street parking layout and design; restrictions concerning the building bulk, height, setback, location, and external appearance; stipulations concerning adequate storm drainage or utilities; and other appropriate conditions in order to protect the health, safety and welfare of Adams County residents, and to provide for sound environmental practices.
10. Amendments: Applicable.

2-02-12-06 GENERAL CRITERIA FOR APPROVAL

The Board of Adjustment, in approving a special use permit, shall consider:

1. The special use is consistent with the purposes of these standards and regulations.
2. The special use will comply with the requirements of these standards and regulations including, but not limited to, all applicable performance standards.
3. The special use is compatible with the surrounding area, harmonious with the character of the neighborhood, not detrimental to the immediate area, not detrimental to the future

development of the area, and not detrimental to the health, safety, or welfare of the inhabitants of the area and the County.

4. The Special Use Permit has addressed all off-site impacts.
5. The site is suitable for the special use including adequate usable space, adequate access, and absence of environmental constraints.
6. The site plan for the proposed special use will provide adequate parking, traffic circulation, open space, fencing, screening, and landscaping.
7. Sewer, water, storm water drainage, fire protection, police protection, and roads are to be available and adequate to serve the needs of the special use as designed and proposed.

Commercial Composting Operation

Another option is if the site is defined as a **Commercial Composting Operation** within these county standards, and thus would require a Conditional Use Permit⁹. This is a more arduous process, and due to the requirements, may not be the preferred process for the farm.

4-11-02-03-02 SOLID AND HAZARDOUS WASTE DISPOSAL

General Operating and Performance Standards: The following General Operating and Performance Standards are applicable to all Solid Waste Disposal Sites and/or Processing Facilities:

1. Compliance with Colorado Solid Waste Act: Operators shall comply with the Colorado Solid Waste Act (C.R.S. 30-20-100 et seq.), and all regulations promulgated pursuant to said Act by the Colorado Department of Public Health and Environment.
2. Compliance with State Standards and Regulations: Operators shall comply with all adopted State and Federal regulations, whether such regulations are adopted prior to, or after, approval of a Certificate of Designation under these standards and regulations.
3. Performance Bond Required: Prior to commencing operations, and thereafter during the active life of the facility, the operator shall post and maintain a performance bond or other approved financial instrument with Adams County.
4. Liability Insurance Required: All solid waste disposal site and/or processing facility operators shall maintain adequate liability insurance in the amount of one million dollars and submit evidence of such insurance upon request from the Director of Community and Economic Development.
5. Outdoor Processing Prohibited: All solid waste processing facility operations shall take place completely enclosed within a building unless otherwise specifically provided for in the approved plan.
6. User Service Charges Required: All solid waste disposal site and/or processing facility operators shall collect service charges from users for the purpose of solid waste management in the County. Such charges shall be collected pursuant to the Board of County Commissioners Resolution of August 28, 1985, as amended.
7. Uncovered Loads: All uncovered loads shall be charged double the normal disposal rate.
8. Waste Along Public Rights-of-Way Control: Operators shall remove trash, or other waste material, disposed of or treated at their facility, along all public rights-of-way within one

⁹ permits.adcogov.org/sites/default/files/2024-01/conditional-use-permit.pdf

(1) mile of the facility and up to five (5) miles along the approved haul routes, or as otherwise specified.

9. Odor Control: At no time shall a waste disposal site or waste processing facility create malodorous conditions.
10. Erosion Control: At no time shall a waste disposal site or processing facility allow soil loss or erosion beyond that provided for in the erosion control measures approved in the design and operations plan.
11. Storage of Untreated or Unprocessed Waste: Storage of authorized untreated or unprocessed waste shall not exceed the time limit described in the approved plan, conditions of approval required with the Certificate of Designation, or otherwise required by the Colorado Department of Public Health and Environment.
12. Outside Storage: All allowed accessory outside storage shall be concealed by an eight (8) foot solid screen fence or other effective screening material as approved by the Director of Community and Economic Development.
13. Right-of-Way Screening: All new facilities shall provide and maintain attractive visual screening from any public right-of-way from which the facility is visible.
14. Waste Minimization Program: All operators shall conduct a waste minimization program both with the community and with generators, providing public information and assistance for waste reduction, recycling, and reuse programs.
15. Certification of Special Structures and Equipment: Special structures not addressed in these standards and regulations, and processing equipment which has the potential to create external environmental impacts (through air emissions, groundwater impacts, etc.), shall be certified by a registered professional engineer or other qualified expert, as determined by the Director of Community and Economic Development, as to proper installation and construction in accordance with the approved design and operations plan prior to start of operations.
16. Quarterly Reports: Operators shall submit quarterly reports no later than thirty (30) calendar days following the end of the calendar quarter to the Director of Community and Economic Development, Adams County Health Department, and the Colorado Department of Public Health and Environment, summarizing:
 1. Results of Monitoring Data: The results of air and water monitoring data, monitoring of landfill gas, and other environmental monitoring data, as applicable, prepared by a qualified independent firm or other qualified professionals, including in-house certified staff and laboratories acceptable to the Director of Community and Economic Development.
 2. Received Waste Figures: Daily average and cumulative figures for the quantity and types of waste received. The cumulative figure shall be related to a percentage completion figure for the current phase of operation or approved operating capacity.
 3. Gross Quarterly Revenues: Gross quarterly revenues for calculation of the County's Solid Waste Management Fee.

17. Annual Reports: Operators shall submit annual reports to the Director of Community and Economic Development, Adams County Health Department, and the Colorado Department of Public Health and Environment.
 1. Purpose of Annual Reports: The annual reports shall be used to determine if the amount of the performance bond is still adequate and whether timely progress is being made toward completion or closure, if applicable to the specific operation.
 2. Content of Annual Reports: The annual reports shall summarize the following information
 1. Waste Types and Volumes: The waste types and volumes handled throughout the year.
 2. Operation Completion: The percentage of operation completion to date.
 3. Monitoring Information: An interpretation of all monitoring information on a yearly basis.
 4. Reclamation Activities: A tabulation of reclamation activities to date.
 5. Operational Plans for Following Year: A description of operational plans for the following calendar year.

Composting Operation Standards (required in addition to General Standards)

1. *Removal of Trash from Right-of-Way*: Operators shall remove trash, or other waste material, of the type, which is brought to the composting facility, along all public rights-of-way within one-half (1/2) mile of the facility.
2. *Performance Bond*: Prior to commencing operations, and thereafter during the active life of the facility, the operator shall post and maintain a performance bond or other approved financial instrument with Adams County. Said bond shall be sufficient to ensure compliance with operating conditions of the Permit, the amount of which shall be established by the Board of County Commissioners. Should any corrective actions be required by the County in order to protect the health, safety, and general welfare which result from failure of the operator to follow any regulations, standards, or conditions of approval, the performance bond shall be forfeited in an amount sufficient to defray the expense of said actions, including staff time expended by Adams County involved in such corrective actions.
3. *Environmental Bond*: Prior to commencing operations, and thereafter during the active life of the facility, and for five (5) years after closure, the operator shall post a bond sufficient to ensure compliance with the closure plan, and to effect remedial measures if environmental damage is found to be taking place.
4. *Traffic Control Plan*: Provisions of the approved traffic control plan shall be followed.
5. *Appearance*: All sites shall maintain a clean, neat, and orderly appearance. Litter, dust, and odors may not leave the boundaries of the site.
6. *Vehicle Parking*: Transfer vehicles may not be parked on public streets.
7. *Vector Controls*: All sites shall maintain vector controls as prescribed by the approved plan.

Local Regulations

Town of Bennett does have code requirements for refuse¹⁰, transporting garbage¹¹, and trash enclosures¹². However, because Grafted Yoke Farm is in the unincorporated region of Bennett, these codes will likely not apply. These codes will apply to the entities which are collecting the materials (i.e., hauler or drop off enclosure).

¹⁰ library.municode.com/co/bennett/codes/municipal_code?nodeId=CH7HESA_ARTIIRE

¹¹ library.municode.com/co/bennett/codes/municipal_code?nodeId=CH7HESA_ARTIINU_S7-2-90TRGAMA

¹² library.municode.com/co/bennett/codes/municipal_code?nodeId=CH16LAUSDE_ARTIIZO_DIV7LAST_S16-2-730SCSI



TO: TOWN OF BENNETT
FROM: RRS
DATE: JANUARY 30, 2023
RE: PRIMARY ACTIVITY #4

Grafted Yoke Farm

This research explores the potential of implementing a food scrap composting program at Grafted Yoke Farm. On December 18, 2023, the Front Range Waste Diversion (FRWD) Technical Assistance Service Provider (TASP) team conducted a site visit with Grafted Yoke Farm, Town of Bennett staff, and a compost expert from Compost Queen. The purpose of the meeting was to assess the farm's feasibility for collaborating with the Town of Bennett to establish a community composting initiative for residential food scraps.

Grafted Yoke Farm, located at 49950 Oak Park Dr, Bennett, CO, spans 10 acres, is owned by Chelsea Nelan, and is on unincorporated land. Currently running a Community Supported Agriculture (CSA) program with around 30 participants during the growing season, Grafted Yoke acknowledged the need for compost due to sustainable regenerative practices. The farm incurs substantial annual costs for purchasing and transporting compost, prompting them to explore the possibility of producing their own compost and proposing a community composting program to the Town of Bennett.

Several considerations come into play when contemplating a community composting program in Bennett. Considerations include building an educational program to promote and sustain residential participation, the start up costs for composting on-site, and the regulatory requirements for processing food scraps.

The Town of Bennett will likely need to support Grafted Yoke Farm with education and outreach to increase residential awareness and interest in source separating food scraps for collection and processing. Leveraging Grafted Yoke's existing CSA program could be advantageous in kickstarting the initiative, given the established customer base traveling to and from the farm.

Startup costs and labor are critical factors in initiating a composting program. With only one full-time employee at Grafted Yoke Farm, additional manpower would be necessary to manage farm activities and the composting program during the growing seasons. Curbside pickups from customers will also require hiring a dedicated employee and acquiring a company vehicle. Conducting a cost-impact analysis for upfront costs, including collection bins, signage, regulatory requirements, and equipment, may be essential to determine funding needs and potential sources.

Grafted Yoke will also need to conduct research and gain the necessary education to comply with federal and state guidelines. Different composting processes, such as windrow, static pile, aerated static pile, bunker, and in-vessel, each entail specific equipment, operations, and monitoring. Additionally, compost typically experiences a shrinkage rate of approximately



75%, necessitating composting about four times the required amount for a finished product. Considering Grafted Yoke’s substantial compost needs, this may pose feasibility challenges.

Recommendations for moving forward include reviewing requirements for a Conditional Exempt Small Quantity (CESQ) facility. Meeting requirements would involve obtaining education and materials for commercial composting, including options like Compost Operations Training Course (COTC), 131 School of Composting Certificate, local Master Composter programs, Compost 101 classes, and relevant literature.¹ Deciding on the composting method, acquiring necessary infrastructure and equipment, ensuring a supply of quality carbon feedstocks, and initiating the program as a drop-off option for CSA members are vital steps.

In addition, research suggests there are two permitting pathways that could be used to regulate an on-site composting operation applicable to Adams County Board of Commissioners’ Development Standards and Regulations. The easier pathway is for the site to obtain a Special Use Permit. The second option, following the county’s Commercial Composting standards, requires significant investments in time, planning, and money, and while technically feasible, would be operationally prohibitive. The Special Use Permit will still require initial investment and planning.

The existing CSA program provides a valuable resource to initiate a small-scale collection and processing program. A phased approach, starting with a pilot program and addressing operational needs on a small scale, is advantageous. While community involvement beyond CSA members may require additional help and decisions on hiring, aligning revenue from consumers with employee costs is an ideal scenario. The main challenge lies in collecting sufficient organic green waste to manufacture compost for the farm’s needs. If Grafted Yoke finds it acceptable to implement a small-scale collection and processing system for organics, the project can and should move forward.

¹Not applicable. Colorado Department of Public Health and Environment approved regulations, effective 3.30.2024, which does not include a COTC requirement for CESQ sites.



TO: TOWN OF BENNETT
FROM: RRS
DATE: JANUARY 30, 2023
RE: PRIMARY ACTIVITY #5

East Regional Landfill

Conducted under the Front Range Waste Diversion (FRWD) Technical Assistance Service Provider (TASP) program, the TASP team met with the East Regional Landfill to discuss their interest in and capacity to receiving source-separated food scraps from the Town of Bennett. The compost facility at the East Regional Landfill currently accepts food scraps and yard waste but is not inclined to expand its acceptance to compostable plastics due to contamination concerns. The tipping fee for food scraps at the compost facility is estimated to range from \$60 to \$100 per ton, with a two-ton minimum per load. Republic Services, responsible for the landfill, demonstrates interest in and capacity to process the organics from Bennett. The landfill staff recognizes the potential to separate food scraps at the source, thereby reducing contamination in their recycling streams.

Their preference would be to initiate a pilot program involving a sample of residents, and, currently, they are not interested in direct drop-offs from residents at the landfill. Instead, they are open to a program that aggregates residential food scraps from a small sample of homes (30-100) in Bennett. The staff will circle back to TASP about the feasibility of sourcing a small-scale container (3-4 yard open top container) and handling the material. Despite the landfill's drop-off hours being from 7:00 am to 4:30 pm Monday through Friday, their inclination is to collaborate with their hauling services or an established waste collection service to collect the aggregated residential food scraps.

The TASP team advises the Town of Bennett to utilize the potential and momentum from Grafted Yoke Farm's Community Shared Agriculture (CSA) members to begin a pilot program that collects source-separated food scraps. Republic Services may be able to provide the container for the drop off, and then haul the material. There may be the option to collaborate with Republic Service's existing organics collection routes, as they currently pick up organics from the nearby Denver International Airport. However, any pilot that is implemented must include robust outreach and education to mitigate contamination.



FRWD

Front Range
Waste Diversion

TOWN OF BENNETT GRAFTED YOKE FARM RESEARCH

2/12/24

COMPOST REQUIREMENTS

- Likely to fall under State's Conditionally Exempt Small Quantity Compost Classification. Site must register with state, and, pending updates, complete operator training.*
- County requirements likely fall under Special Use Permit. Special Use Permit incurs a cost and will need further discussion with County representatives.
- Local requirements not applicable.

*Not applicable. Colorado Department of Public Health and Environment approved regulations, effective 3.30.2024, which does not include a COTC requirement for CESQ sites.

STATE COMPOST REQUIREMENTS



- Likely to fall under Conditionally Exempt Small Quantity (CESQ)
- Must register with CDPHE
- Can process up to 5 cubic yards of Type II* (source separated organics, food processing vegetative waste, etc.)
- *Proposed change up to 20 cubic yards**
- Must keep records of feedstock types and quantities with annual reports.



COUNTY COMPOST REQUIREMENTS

- Likely to fall under Special Use Permit
- Applies to non-permanent activities (less than 5 years)
- Associated permit is \$1,000
- County recommends Conceptual Review Process before designating a pathway with a \$600 fee.



COMPOST SITE RESOURCES

- Start small as best practice to reduce contamination and monitor success.
- Additional staff to manage site
- There are several types of composting methods that could work for the farm
- Compost training operator course for site-specific best practices
- 340 pounds/household annually equals about 5 tons of organics to process annually, with about 30 homes participating
- Is this enough to offset finished compost needs?
- Aggregating and collecting feedstock

TO: TOWN OF BENNETT
FROM: RRS
DATE: FEBRUARY 1, 2024
RE: PRIMARY ACTIVITY #7 - DRAFT SURVEY QUESTIONS

The questions below are intended to gather the interests of Town of Bennett's residents in participating in an organics collection program.

The Town of Bennett is seeking your input on current efforts and interests in increasing composting efforts in the town. By completing this survey, you help Bennett consider a program that will provide the most benefit and likelihood for success. Your insights are crucial to the process. Thank you for taking the time to share your thoughts.

Current Practices:

- a. Are you familiar with the process of composting? Composting is the natural process of recycling organic matter, such as leaves and food scraps, into a valuable fertilizer that can enrich soil and plants.

Very unfamiliar, somewhat unfamiliar, neutral, somewhat familiar, very familiar

- b. Does your household currently compost yard debris, such as grass, leaves, prunings and small branches?

Yes, no

- c. Does your household currently compost any food scraps, such as fruit and vegetable trimmings, egg shells or coffee grounds?

Yes, no

- d. How many people live in your household?

- e. According to a MITRE-Gallup study, U.S. households produce about 6 cups of food scraps per week. How many cups per week do you estimate your household generates for food scraps?

1-3, 3-6, 6-8, 10+

- f. How familiar are you with the concept of yard waste and/or food scrap collection or drop-off programs? Many communities across the country offer services for residents to begin composting. These services may include aggregated collection points where residents may bring the acceptable material, or hauling services that collect organic matter from residents.

Very unfamiliar, somewhat unfamiliar, neutral, somewhat familiar, very familiar

Interest and Motivation:

- a. Would you be interested in participating in a compost/food scrap collection or drop-off program?

Not interested, somewhat interested, neutral, somewhat interested, very interested



b. What factors would motivate you to participate in such a program? (check all that apply)

- Having a compost bin provided by the Town
- An educational guide to getting started
- Understanding how compost helps our local community
- Free or low-cost participation
- Drop off within town or pickup from homes
- Other (please specify)
- Not interested

Program Preferences:

a. Which type of compost program would you participate in?

Drop off

Pick Up Services

Either

Neither

Other (please specify)

b. How much would you pay weekly for drop off compost?

Up to \$15, up to \$25, up to \$30, up to \$40, none

c. How much would you pay weekly for the collection of compost at your house?

Up to \$15, up to 25, up to 30, up to 40, none

d. how far would you travel to drop off your food waste at a composting hub?

A walkable distance, up to 5-minute drive, up to 10-minute drive, only interested if picked up at my house.

e. Suggestions to where a collection point may be feasible.

Open text

Education and Outreach:

a. How do you prefer to receive information about a future residential composting program? (Check all that apply)

-community meetings

-social media

-flyers

-door to door outreach

-other (please specify)

b. What resources would help you learn how to participate in this proposed program? (Check all that apply)

-Refrigerator magnet

-Bin signage

-Email Tutorial

-Instructional Video

-Other

Contact Information:

Would you be willing to provide your contact information for future updates and communications regarding compost collection programs?