



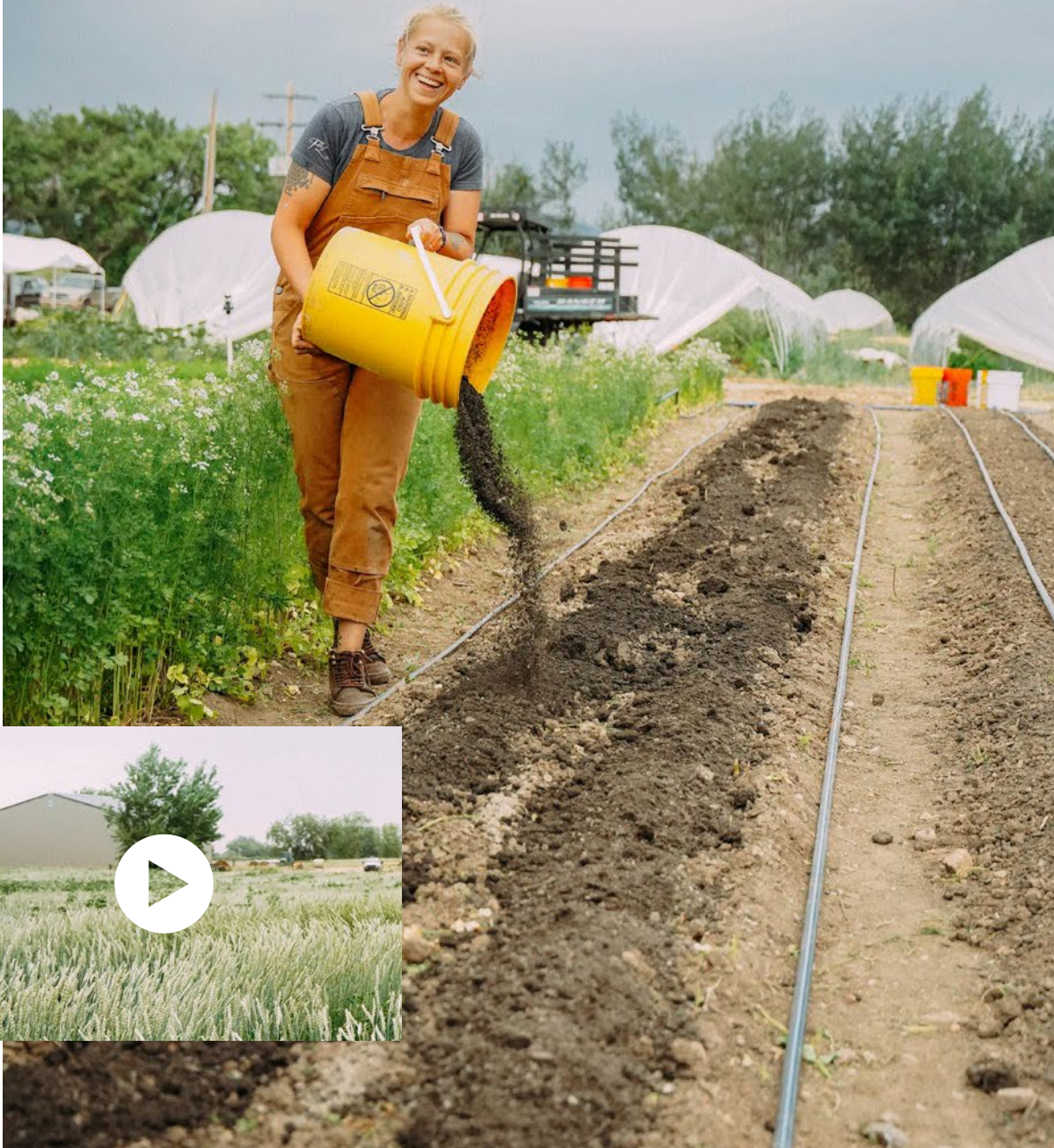
Sustainability,
Climate Action
& Resilience

Reporting Period: 9 30 2021 – 9 30 2022
Grant Number: NR203A750027C015

Restore

COLORADO

A Table to Farm Movement



— Meet the people behind the movement



RESTORE COLORADO

Together with Boulder County and Zero Foodprint, Restore Colorado is a “table-to-farm” movement, mobilizing Coloradans around agricultural climate solutions. Food systems are a critical force for reversing climate devastation. By creating an economic connection from consumers and businesses back to farmers and ranchers, soil health can be restored and carbon can be sequestered to improve the overall resilience, prosperity, and nutrient density of local land.



— *Meet the farmers, ranchers, chefs and business owners behind this table to farm movement*

CONTENTS

4
EXECUTIVE SUMMARY

6
ACCOMPLISHMENTS
AND DELIVERABLES

12
PROJECT OUTCOMES
AND PROGRESS

46
LESSONS LEARNED

50
ONGOING WORK

MAD!



Sustainability,
Climate Action
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Restore Colorado: A Table to Farm Movement

EXECUTIVE SUMMARY

A TABLE TO FARM MOVEMENT

A few cents per meal adds up to big investments in soil and more acres of regenerative farming.

We can restore underground ecosystems by restoring carbon in the soil.

Restoring carbon in the soil removes carbon from the atmosphere.

Removing carbon from the atmosphere improves food and restores our climate.

Restore Colorado (Restore CO) is a “table-to-farm” movement, mobilizing Coloradans around agricultural climate solutions. Built on the Zero Foodprint model launched in California, Restore Colorado has created a public-private collaboration to raise private capital for compost application and soil regeneration projects.

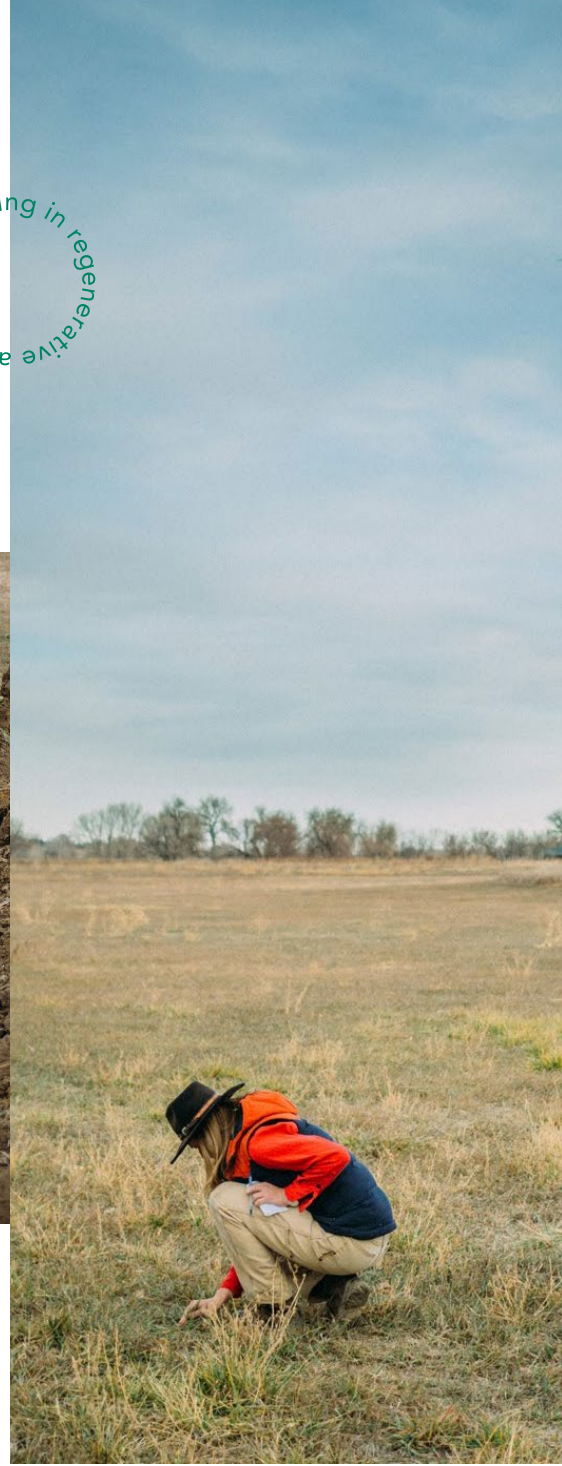
Participating businesses assess a fee for 1% of the cost of their meals to customers to supply the Restore CO fund. This fund is managed by Zero Foodprint to pay for regional farm and ranch carbon sequestration projects which are overseen by Mad Agriculture. The Restore CO program was launched with an initial pilot year in 2021, with support from a \$90,000 grant from the U.S. Department of Agriculture. At launch there were 24 restaurants and food businesses, three compost companies, and numerous local governments and non-governmental coalitions participating in the program across the Front Range of Colorado.

In the year one pilot season, private capital raised through this program was distributed as grant funding to five farm projects. These projects focused on implementing compost application or perennial plantings as conservation practices. The five farm partners were (1) McCauley Family Farm, (2) Esoterra Culinary, (3) Grama Grass & Livestock, (4) Speedwell Farm & Garden, and (5) Frontline Farming.

Key partners in the Restore CO program include Boulder County’s Office of Sustainability, Climate Action & Resilience; Zero Foodprint; Mad Agriculture; Boulder County’s Partners for a Clean Environment (PACE); the City of Boulder’s Climate Initiative Department; and the City and County of Denver’s Climate Action, Sustainability & Resiliency Office.

In year two Restore CO expanded to 32 participating businesses, including corporate donations from Eco-Products and Oatly, with The Denver Museum of Nature and Science joining as the program’s first anchor institution. The program received 19 applications during a summer grant period and had sufficient funding to award six farm projects. In the second year of the program the six farm partners were: (1) Emerald Gardens, (2) Olander Farms, (3) Longtable Farmstead, (4) Drylands Agroecology Research, (5) Boulder Valley Honey, and (6) Switch Gears Farm.

Investing in regenerative agriculture



EXPECTED ACCOMPLISHMENTS AND DELIVERABLES

1. MAKE COMPOST EASILY ACCESSIBLE TO AGRICULTURAL PRODUCERS, INCLUDING COMMUNITY GARDENERS

Indicator 1: Number of cubic yards of compost applied to 100-600 acres of working lands: 17,000-100,000 cubic yards

Milestones

- September 2021: Participation of 20+ restaurants in Restore Colorado who raise \$100,000 for compost application on an annual basis.
- September 2022: Recruit five additional Colorado municipalities to promote the program in their jurisdictions.
- September 2022: Participation of an additional 30 restaurants (50 total) who collectively raise \$200,000 for compost application on an annual basis, reaching 100% financial self-sustainability for Restore Colorado by the end of the grant period.

Year 1 Results

- 1,262 cubic yards of compost applied on 70 acres. See [page 18](#) for a discussion about challenges encountered.
- 27 participating restaurants and businesses (135% of the year one goal)
- Projected funding raised in 2021: \$100,000 (100% of the year one goal)

Year 2 Results

- 3,000 cubic yards of compost applied on 700 acres.
- Funds used to implement conservation practices, including materials and technical assistance, totaled \$63,095.90.
- Total funds raised to date: \$305,083.15 with estimated \$150k-\$200k in ongoing annual funding for carbon sequestration projects.
- Plans for ongoing grants in 2023 in and around Boulder County for compost application and carbon sequestration projects, including a proposed \$40,000 match from Boulder County.

- Plans for statewide projects in 2023 in collaboration with the Colorado Dept of Agriculture's STAR Plus program. The Restore CO funds would financially support compost application and other conservation practices on additional acres for STAR Plus applicants.
- Distributed a guide for food waste recovery to over 10,000 businesses, with 100 businesses adopting compost collection practices.
- Plans for ongoing marketing and outreach support from the City of Boulder.

2022 RESTORE CO	GRANT BID	TECHNICAL ASSISTANCE	TOTAL COST FOR PROJECT	ACRES IMPACTED
Dry Land Agroecology	\$15,000.00	\$2,250.00	\$17,250.00	23
Emerald Gardens	\$11,000.00	\$1,650.00	\$12,650.00	15
Longstable Farmstead	\$4,766.00	\$714.90	\$5,480.90	16
Olander Farms	\$18,000	\$2,700.00	\$20,700.00	650
Switch Gears Farm	\$1,500.00	\$225.00	\$1,725.00	1
Boulder Valley Honey	\$4,600.00	\$690.00	\$5,290.00	1
TOTALS	\$54,866.00	\$8,229.90	\$63,095.90	706

Indicator 2: Number of cubic yards of compost provided to urban farmers and community gardens free of charge.

2021: Zero Foodprint, in collaboration with A1 Organics and Ace Hardware, oversaw a compost giveaway program. Participating Zero Foodprint restaurants were given coupons for free bags of compost to distribute to diners who mention Restore Colorado. See [page 43](#) for additional details and discussion of how this strategy was not successful.

2022: Boulder County, in collaboration with Eco-Cycle, oversaw a compost giveaway program. Members of the public were invited to pick up free compost as a part of Eco-Cycle's Carbon Farming program. See [page 43](#) for additional details and discussion of how this strategy was successful in distributing compost to natural urban landscapes.

2. INCREASE KNOWLEDGE ABOUT COMPOSTING AND FOOD WASTE REDUCTION THROUGH THE FOOD WASTE RECOVERY

Indicator 1: Number of restaurants who participated in training and Food Waste Recovery curriculum: 10,000

Boulder County staff created a Business Guide to Reducing Food Waste. The guide was distributed to 5,343 businesses via email and in-person outreach in 2022. The distribution of this guide supported the adoption of compost collection by approximately 100 businesses, with over 1,000 businesses continuing to compost properly. See [page 18](#) for additional details.

Indicator 2: Tons/per year of organic matter diverted from the landfill based on Food Waste Recovery Training:

- 2019: 10 tons
- 2020: 10 tons
- 2021: 30 tons (125 restaurants x 50 weeks x 10lbs/week = ~60,000lbs/2000 = 30 tons)
- 2022: 25 tons (100 restaurants x 50 weeks x 10lbs/week = ~50,000lbs/2000 = 25 tons) *Estimate of diversion is based on previous participating restaurants diversion numbers.*

3. IMPROVED RATE OF ORGANIC MATTER DIVERSION FROM LANDFILL

summary Two year pilot program



Restore Colorado: A Table to Farm Movement

TIMELINE SUMMARY

Sept 2020	Kickoff meeting
Oct 2020	Prepare promotional campaign and food waste reduction training
Oct 2020	Awareness building with farmers about the Restore Colorado Campaign
Nov 2020-Feb 2021	Initial campaign to solicit participation of restaurants
Nov 2020-Feb 2021	Promotion of subsidized food waste recovery support
Dec 2020	Coordination around pilot carbon farming projects
Jan 2021	1% fee collection starts
Feb 2021-Sept	Education of participating restaurants on food waste reduction
April 2021	Award of first grants from restaurant proceeds
April 2021	Urban compost distribution begins
April 2021	Marketing the impact of grants and restaurant food waste reduction
July 2021	Solicitation of first grant applications
Aug 2021	Annual evaluation and lessons learned from participating restaurants year one
Sept 2021	Revise campaign and solicit participation of additional restaurants
Sept 2021	Share successes and lessons learned with regional partners
Jan 2022	Restore CO application announced to farmers for 2022
Feb 2022	Restore CO applicants selected
Feb 2022	MOU with Colorado Department of Agriculture formalized
June 2022	Partnership with the Colorado Restaurant Association established
May-June 2022	Restore CO project contracts signed and funds allocated to farmers.
Aug 2022	First "Anchor Institution" onboarded: The Denver Museum of Nature & Science
Sept 2022	Restore CO projects completed
Sept 2022	Exploring statewide pilot projects
Sept 2022	Exploring collaboration with San Miguel County Payment for Ecosystem Services
Sept 2022	Exploring continuation of collective funding program with City of Boulder



connectious Local farm to table

PROJECT OUTCOMES AND PROGRESS

KICKOFF MEETING

The Restore Colorado group began meeting on September 23, 2020. Weekly meetings were held until June 2021, after which meetings were held on a biweekly basis. These meetings are attended by staff or representatives from Boulder County, Zero Foodprint, Mad Agriculture and the following organizations and businesses:

- Colorado Restaurant Association
- City of Boulder
- City and County of Denver
- Subway Sandwiches
- Good Business Colorado
- Eco-Cycle
- Resilient Restaurants

PREPARE PROMOTIONAL CAMPAIGN AND FOOD WASTE REDUCTION TRAINING

See [page 14](#) for promotional campaigns and [page 18](#) for food waste reduction training.

AWARENESS BUILDING WITH FARMERS ABOUT THE RESTORE COLORADO CAMPAIGN

Since the launch of the program, Mad Agriculture has actively shared this funding opportunity throughout its network of Colorado farmers with social media campaigns, conversations with eligible farmers, and resources on the Mad Agriculture and Zero Foodprint websites. Mad Agriculture has participated in multiple webinars hosted by PACE and Zero Foodprint and invited regional stakeholders and farmers to these events. At the Soil Rejuvenation Conference held in Boulder in December 2021, Mad Agricultural presented the Restore CO program to over 150 in-person attendees in addition to a virtual broadcast. Over one third of the attendees for this event were farmers. Through social media, email communications, various public events, and further spread by word of mouth, we have been able to solicit over 30 applications for the Restore CO grant program.

Video interviews were conducted with several farm and restaurant partners during the pilot phase; Mark DeRespinis of Esoterra, Andy Breiter of Grama Grass & Livestock, Melissa Ogilvie of Speedwell Farm & Gardens, [Caroline Glover of Annette](#), Mara King of Dry Storage, Kelly Whitaker of Id Est Hospitality, and [Marcus McCauley of McCauley Family Farm](#). Photo content has been collected across all pilot partners to build campaigns and storytelling initiatives. Documenting project implementation has been critical for building trust with new farmers and partnering restaurants. We anticipate additional farms looking for engagement opportunities as we demonstrate these successful partnerships and we will also be promoting Restore CO to farmers leasing land from Boulder County Parks and Open Space.

INITIAL CAMPAIGN TO SOLICIT PARTICIPATION OF RESTAURANTS

Boulder County, Zero Foodprint, and Mad Agriculture collaborated to perform the following education and outreach activities:

- Conducted targeted email outreach to individual restaurants
- Held over 50 meetings and info sessions with prospective business members, stakeholders, and press around Restore Colorado
- Featured Restore Colorado in six PACE newsletter communications
- Held a webinar on February 17, 2021 for Boulder County restaurants to explain the program and how to become involved. The webinar had 97 attendees and was promoted through PACE newsletters and by way of targeted/personal outreach efforts from PACE advisors. The webinar was recorded and sent to all attendees and 4,700 additional PACE business contacts and 858 Boulder County restaurant contacts through PACE communications.
- Published a joint press release from [Boulder County and the City and County of Denver](#)
- Worked with [the Regenerative Recovery Coalition](#) to promote Restore CO to its members and began direct collaboration with the regenerative agriculture working group, laying the groundwork for potential collaboration with Colorado Department of Agriculture.
- Partnered with the [Colorado Restaurant Association](#)
- [Hosted a webinar with the Colorado Department of Agriculture for Colorado Proud businesses to learn more about the program.](#)

The success of the Restore CO program and collaborative outreach efforts earned media coverage from the following publications:

- Westword 3/24/21: [Restore Colorado Will Take Dinners From the Table to the Farm](#)
- Daily Colorado News 4/19/21: [Restore Colorado starts in Boulder County and Denver](#)
- Daily Camera 4/20/21: [Boulder County restaurants join Restore Colorado to fund regenerative farming projects](#)
- DenverGov 04/20/21: [Restore Colorado launches in Boulder County and Denver](#)
- Colorado Hometown Weekly 4/20/21: [Boulder County restaurants join Restore Colorado to fund regenerative farming projects](#)
- BizWest 4/20/21: [Boulder County restaurants join Restore Colorado to fund regenerative farming projects](#)
- Longmont Leader 4/21/21: [From table to farm, how restaurants are helping local agriculture](#)
- Ag Information Network 4/21/21: [Earth Day Food Waste](#)
- Boulder Weekly 4/22/21: [Investing in good food](#)
- KVNF 4/22: [Restore Colorado](#)
- Yellow Scene Magazine 4/27/21: [Month in Review | April 2021](#)
- Colorado Public Radio 5/3/21: [This Restaurant-Led Agriculture Effort Wants to Help Farmers and Ranchers Fight Climate Change](#)
- US News & World Report 5/9/21: [Restaurant-led agriculture effort aims to fight climate change](#)
- The Denver Post 5/9/21: [Restaurant-led agriculture effort aims to fight climate change](#)
- The Colorado Sun 5/10/21: [Colorado restaurants are funding farming and ranching projects that suck carbon from the atmosphere](#)
- Food Tank 8/28/21: [The Table to Farm Movement Championing Sustainable Agriculture in Colorado](#)
- Colorado Politics 10/28/21: [Colorado steps up on regenerative agriculture](#)
- USDA News Release 3/22/22: [USDA Helps Urban Communities Improve Colorado Soils While Supporting Urban Agriculture](#)
- Colorado Restaurant Association News Release 7/6/22: [Colorado Restaurant Association Announces Partnership with Climate-Solution Organization Zero Foodprint](#)

- Boulder Weekly 7/21/22: Size Order of Sustainability
- KUNC (NPR for Northern Colorado) 11/3/22: Of soil and sandwiches: urban restaurants fund regenerative farming in Colorado
- NPR Marketplace 11/28/22: To fund climate-friendly agriculture, farmers seek financial support from restaurants

Projected annual revenue, including donations from corporate sponsors, is approximately \$200,000 per year and meets the goals for the grant. After two years of outreach efforts 32 businesses are participating in Restore CO, which is 80% of the final goal, including the following:

- A1 Organics: EcoGro Compost
- Annette (Aurora)
- Ash’Kara (Boulder)
- Bin 707 Foodbar (Grand Junction)
- Book See Financial
- Budha Creations (Denver)
- Denver Museum of Nature and Science (Denver)
- DiFranco’s (Denver)
- Dry Storage (Boulder)
- East Denver Food Hub (Denver)
- Fruition (Denver)
- GB Culinary (Longmont)
- La Cocina de Luz (Telluride)
- Nude Foods Market (Boulder)
- Roots (Broomfield)
- River and Woods (Boulder)
- Serendipity Cafe
- Serendipity Catering
- Serendipity Coffee Bar (Denver)
- Somebody People (Denver)
- Scraps (Denver)
- Subway (All Boulder Locations)
- Sullivan Scrap Kitchen (Denver)
- The Butcher and The Baker (Telluride)
- Wompost (Aurora)
- Whistling Boar (Longmont)
- Wonder Press (Boulder, Denver)

PROMOTION OF SUBSIDIZED FOOD WASTE RECOVERY SUPPORT

There are several challenges with utilizing a donation-based food recovery platform, including high costs and a restaurant's ability to administer a new program amid staffing shortages. Many restaurants have also shifted their way of doing business as a result of the COVID-19 pandemic. Making the business case and understanding how much food can be donated in a typical year has been difficult in the wake of impacts from COVID-19.

It's not likely that a food recovery platform will be subsidized during this grant cycle, but Boulder County has been working with Boulder Food Rescue, a local nonprofit, to better understand the potential for food recovery. In 2022, Boulder County will receive metrics from Boulder Food Rescue and collaborate on ideas for the future with the goal of finding a local and affordable solution. Boulder County has also been in communication with Feeding America as they work on an application enabling restaurants to post products to be collected by a local food bank. Boulder County will promote this application to local food banks and restaurants if and when it is active.

COORDINATION AROUND PILOT CARBON FARMING PROJECTS

Mad Agriculture selected farm partners for the pilot year of this program over the course of several months in the fall of 2020. For compost application, Mad Agriculture looked for stewards managing over 20 acres of land that would be suitable for implementation. They also looked for market farmers with pastures or perennial fields who sold directly to restaurants, in order to clearly demonstrate the circular nature of this fund. It was important to find farmers who were willing to experiment by participating in this new program, as well as provide feedback and share their experience with their community. These criteria led to the selection of three partners within the bounds of this grant: McCauley Family Farm, Grama Grass & Livestock, and Esoterra Culinary Gardens. Partnerships with FrontLine Farming and Speedwell Farm & Garden were also established outside of the bounds of this grant.

The second year of farm partners selections was led by Zero Foodprint through an online application. Boulder County and Mad Agriculture provided local knowledge of farms and working lands to aid in the selection process. The Restore CO program was advertised through social media, email listserv,

and word of mouth. The application was open for three weeks and received over 30 proposals during this time. Mad Agriculture and Zero Foodprint also spoke with several other farmers across the state who inquired about the program, but were out of scope for this year's funding pool. The selection of farm projects took into consideration the estimated carbon emission reduction per dollar amount, as calculated through COMET-Planner, as well as the scale of the farm and proposed project. Efforts were made to include applicants from historically underserved communities, leading to an additional 6 farms being selected. The focus of these projects was compost application, sourced from single stream compost, organic dairy manure-based compost, and vermicompost, but other practices included annual cover crop planting and woody and perennial plantings.

1% FEE COLLECTION STARTS

To date, the Restore Colorado program has received over \$305,000 from participating restaurants and businesses. The incoming conservation funding from businesses is approximately \$50,000 per quarter and meets our goals.

EDUCATION OF PARTICIPATING RESTAURANTS ON FOOD WASTE REDUCTION

Boulder County staff created a [Business Guide to Reducing Food Waste](#). While the guide was built for Boulder County businesses, it can be easily used outside of Boulder County as long as the available resources are updated. This guide is hosted on the Partners for a Clean Environment (PACE) webpage and has been promoted through the PACE newsletter with distribution to 4,702 business contacts and 858 food service business contacts. The guide was also promoted through one on one communications with restaurants by PACE advisors.

AWARD OF GRANTS FROM RESTAURANT PROCEEDS

Zero Foodprint has provided \$40,000 of the incoming funds from the Restore Colorado program to Mad Agriculture for the purchase and application of 1,262 cubic yards of compost on 95 acres, sequestering an estimated 1,341 MT CO over the next 10 years. In our application we estimated working on 100-600 acres of working lands to apply 17,000-100,000 cubic yards of compost, considering compost application rates from the Carbon Cycle Institute. Our

original estimations on application rates were off for the solicitation of this grant, but the estimated acreage was accurate and we plan to stay within the estimated range of yards per acre by the end of the grant period. These projects required between 1/16th and 1/8th inches of compost, which was less than our originally estimated application rate. We expected a similar number of compost partners in year two and therefore needed to amend our compost yard estimate. We estimated this grant will enable 200 acres of practice with up to 3,000 yards of compost over the initial two year period.

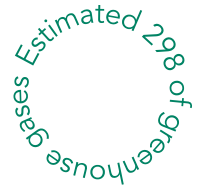
Compost application is often cost prohibitive for producers and spreading compost can be difficult without access to proper equipment. Part of the high cost in the initial round of projects was attributed to this context.

Finding the right partners and scale of equipment is crucial for the success of this conservation practice. Mad Agriculture initially selected United Ecology as a partner, as a burgeoning business and regenerative alliance looking to implement regenerative practices for land stewards. A third party had to be hired for the compost spreading and this group had equipment meant for smaller scale application, leading to additional time needed to spread compost for two of the three projects in year one. This lesson will guide us to projects scoped for the equipment at hand, or to seek out the right compost spreader for this type of project. Two other compost spreaders associated with other compost companies were identified. Solving these equipment challenges may require sourcing from another compost facility.

We have found that farmers have different preferences for types of compost depending on their operation and land use. Some farmers were willing to use the EcoGrow product from A1 Organics, a Class 1 Compost produced using feedstocks of primarily ground trees and limbs, leaves, grass, source-separated food, and brewery residuals. Other farmers preferred the OrganoSCAPE Compost from Soil Rejuvenation, a manure-based organic soil amendment that provides essential nutrients, microorganisms, and organic matter for optimal plant growth.

Moving forward, it would be beneficial to have a variety of compost companies and types to procure from and compost spreading partners that work for small, medium and large scale projects. The gaps in this system for our region shed light on opportunities for Boulder County. Understanding these gaps and potential barriers for farmers was a critical takeaway from the projects implemented in year one.

In year two, Zero Foodprint and Mad Agriculture conducted a request for proposals among local agriculture networks, resulting in 19 applications and 6 awarded grants. Zero Foodprint's selection process includes modeled carbon sequestration, but the COMET-Planner model does not yet provide estimates for compost application projects. As a result, a 2018 feasibility study prepared by Colorado State University and the COMET team for the City of Boulder and Boulder County was used to supplement this process. Zero Foodprint convened a selection process meeting with project leads from Mad Agriculture and Boulder County to review and finalize grant selections, with additional stakeholders, including the City of Boulder, invited to participate. Awarded projects are detailed below:



Estimated 298 of greenhouse gases

"We are talking about a consumer revolution, we are talking about putting the power in the hands of the consumer to decide what kind of food system they want."

*Marcus McCauley,
Restore Colorado recipient farmer*

RESTORE COLORADO GRANTEE

McCauley Family Farm

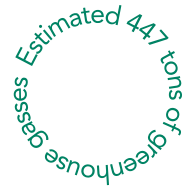
McCauley Family Farm is a regenerative whole-farm ecosystem dedicated to healing people and the planet with delicious food. They strive to connect the dots between consumers and crops, produce and people, and seeds and souls — and Restore Colorado helps them to do just that. When you contribute through your purchase, you support Colorado farms in their efforts to regenerate the land and take action on the climate crisis. Through Restore Colorado, McCauley Family Farm was able to apply 315 yards of compost that sequestered an estimated 298 of greenhouse gases.

The McCauley Family farm project took place on a property owned by the City of Boulder and managed by owner Marcus McCauley. Restoring this piece of land has been ongoing with the City of Boulder, Mad Agriculture and Marcus McCauley. The long-term vision of this project is to experiment with methods of revitalization and restoration of a plot of land that had been mismanaged to the point of losing all of its topsoil. The Restore Colorado project at McCauley Family farm applied 315 yards of compost at 1/8" depth on 20 acres for an estimated 298 MT CO of sequestration. This application was part of a longer term vision of bringing the land back to life. When this larger project started three years ago, nothing was growing and all the top soil had been blown away, leaving a rocky and harsh environment. Since this start, regenerative practices such as keyline plowing, cover cropping, swale additions, animal integration and now compost. This property is central to continued learning in this region, and the compost was a critical piece in jumpstarting biological life in this soil.



Custom Soil Resource Report
Soil Map





Estimated 447 tons of greenhouse gases

"It felt like the circle was completed. It felt like an opportunity for consumers to say they wanted to support the larger process: to support the land & ecosystem."

*Mark DeRespinis,
Restore Colorado recipient farmer*

RESTORE COLORADO GRANTEE

Esoterra Culinary Garden

Esoterra Culinary is a small farm making a big impact. Ever tasted a puntarelle? How about agretti? Mark DeRespinis, Esoterra's owner, specializes in growing unconventional vegetables for Colorado culinary innovators. That means when he chooses which crops to plant on his farm, he has to be just as creative as the chefs he grows for. Mark also wanted to get creative when considering alternatives to conventional fertilizer, and that's why he worked with Restore Colorado to substitute A1 Organics compost in his fields. This compost application means Esoterra will sequester an estimated 447 tons of greenhouse gases.

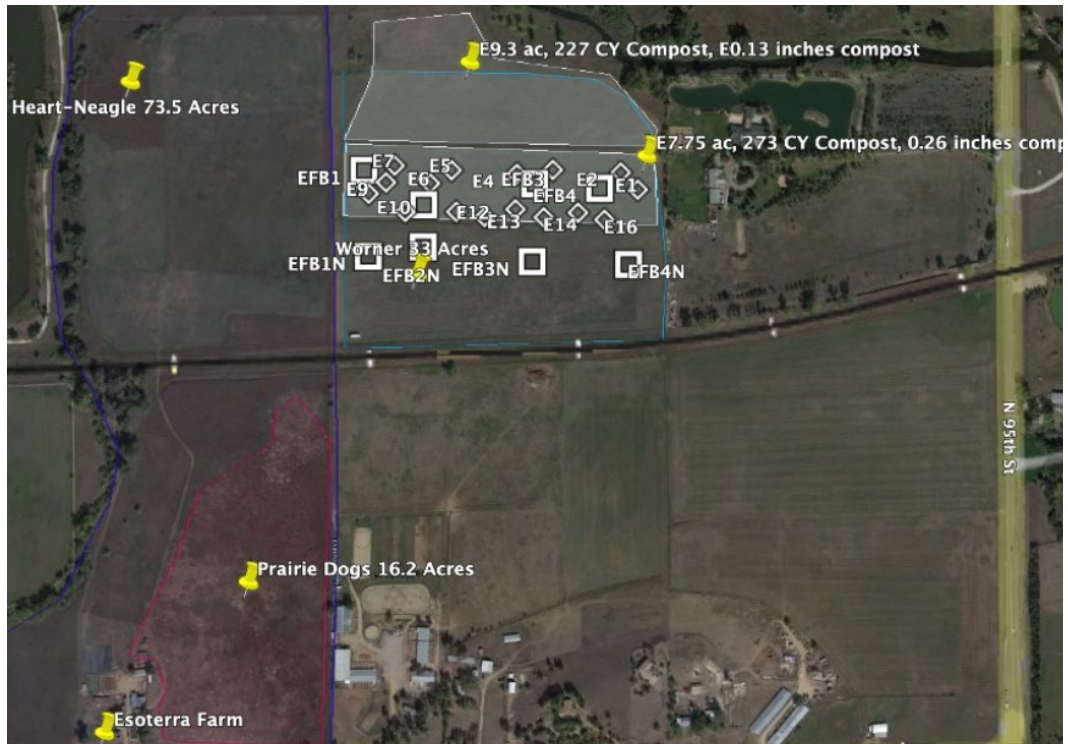
Esoterra Culinary recently acquired a long-term lease on a property owned by the City of Boulder. This land includes a high vegetable productivity zone and two large hay fields which have been managed by a neighboring farmer for years. Mark DeRespinis, owner of Esoterra, agreed to let this third party continue managing his hay fields, but he wanted to consider alternatives to the current fertilizer regime. Restore CO was able to substitute compost from A1 Organics for the intended use of fertilizers on one of the hay fields, with 495 yards of compost applied to 35 acres. Mark noted the vitality of this hay field (see photo comparison below) and his gratitude for the opportunity to work with the received compost. An estimated 447 MT CO of carbon will be sequestered from this compost application.



Without Compost



With Compost





An estimated 596 MT CO of carbon will be sequestered from this compost application on 40 acres.

health 40 acres of improved soil

RESTORE COLORADO GRANTEE

Grama Grass & Livestock

Grama moves their animals frequently and rests their pastures for long periods, imitating the way bison once interacted with the native prairie. As the animals move, they fertilize the land with manure and stimulate the growth of perennial grasses with deep, strong root systems. Restore Colorado allowed Grama to spread 450 yards of compost on 40 acres of degraded land to build soil full of life and rich with carbon. Farmer Andy Breiter has a passion for improving degraded landscapes while providing high quality meat for the Front Range community. Grama Grass & Livestock has a mobile grazing component that allows for animal integration throughout the county, with their cattle grazing on both public and private lands. The cattle are strategically moved multiple times a day to ensure they have access to fresh forage and that the pastures have time to regrow. This grazing strategy produces high quality beef while healing and caring for our prairie ecosystems. His home property received 450 yards of compost from Soil Rejuvenation through Restore CO. By hiring United Ecology, a new regenerative practitioner in Boulder County, this project not only implemented a conservation practice, but provided opportunities to two local businesses run by young farmers. An estimated 596 MT CO of carbon will be sequestered at this site.

Meet the people behind the movement





next generation of young farmers

"Being able to receive these grants is, is crucial to small scale farmers being able to gain momentum and to establish themselves as a profitable business."

*Melissa Oglivy,
Restore Colorado recipient farmer*

RESTORE COLORADO GRANTEE

Speedwell Farm & Gardens

Meet the next generation Front Range farmers! After renting out small parcels in backyards and corner lots, Speedwell Farm and Garden cooperated with other young farmers through the Treehouse Collective to lease a 17 acre parcel. By working with the public, they build community connections while helping the environment through the use of climate-beneficial farming practices. Restore Colorado was able to provide a grant for the compost needed to get them started on their regenerative farming journey.

Meet the people behind the movement





This compost application adds organic matter





*This urban farm is based in Denver
with three locations.*

RESTORE COLORADO GRANTEE

Frontline Farming

FrontLine Farming is a food and farmers advocacy group focusing on education, sovereignty and justice. At their Sister Farms site, FrontLine is reawakening community cultivation by teaching regenerative systems passed down by ancestors to a multigenerational group of community farmers. Restore Colorado provided a grant to support their work to convert an unused corner of the farm into an educational Aya garden with compost, perennials, and trees.





Farmer Damien in the orchard





Historically underserved farmer

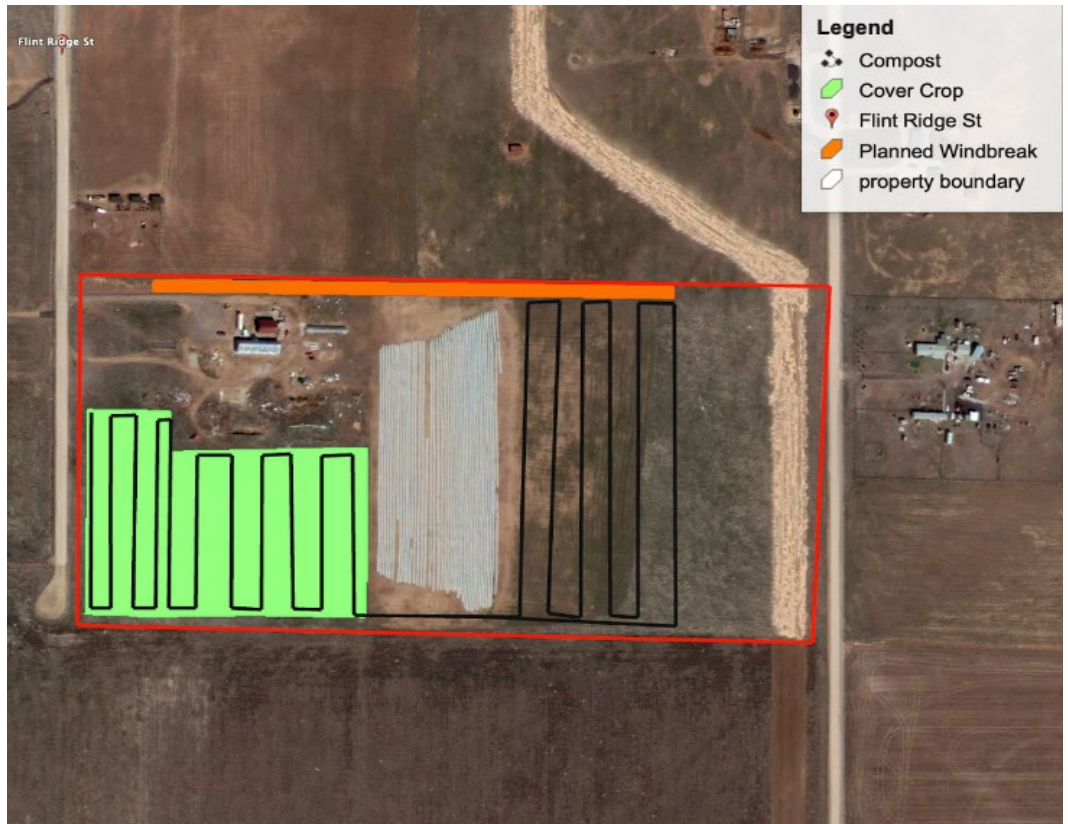
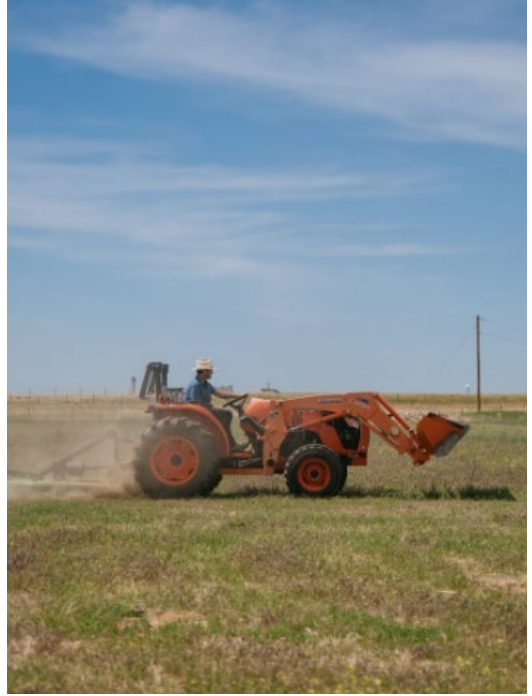
Seeded 8 acres annual cover crops

RESTORE COLORADO GRANTEE

Emerald Garden/Flynt Ridge

Roberto Meza and David Demerling invested in 30 acres of land almost a decade ago. They have also been working to build an ecosystem of businesses that support local communities with healthy, nutritious and equitable access to food, creating the East Denver Food Hub and Emerald Gardens to bring this vision to life. On their land they raise microgreens, mushrooms, goats, and geese and they have tried their hand at a market garden and a CBD hemp enterprise. The greenhouse and mushroom facilities on the property are thriving by using recycled materials and passive heating and cooling to produce goods that are sold through the East Denver Food Hub. The dryland acreage under their management was purchased in a highly degraded condition. Decades of conventional agricultural production of a wheat fallow rotation and sunflower production left depleted organic matter, compacted soils, and a high bank of undesired seeds. This land has limited irrigation from a well and water distribution has been a concern.

Restore CO has helped them restore the water and mineral cycles and improve their soil health. 240 cubic yards of compost was applied across 15 acres and 8 acres of annual cover crops were seeded as result of this grant award. 75 woody plants will be planted across the farm this fall and the following spring to complete this phase of the project. Their goal is to restore the pasture so that they can bring on future enterprises of pasture-raised laying hens and grass fed sheep or goats.





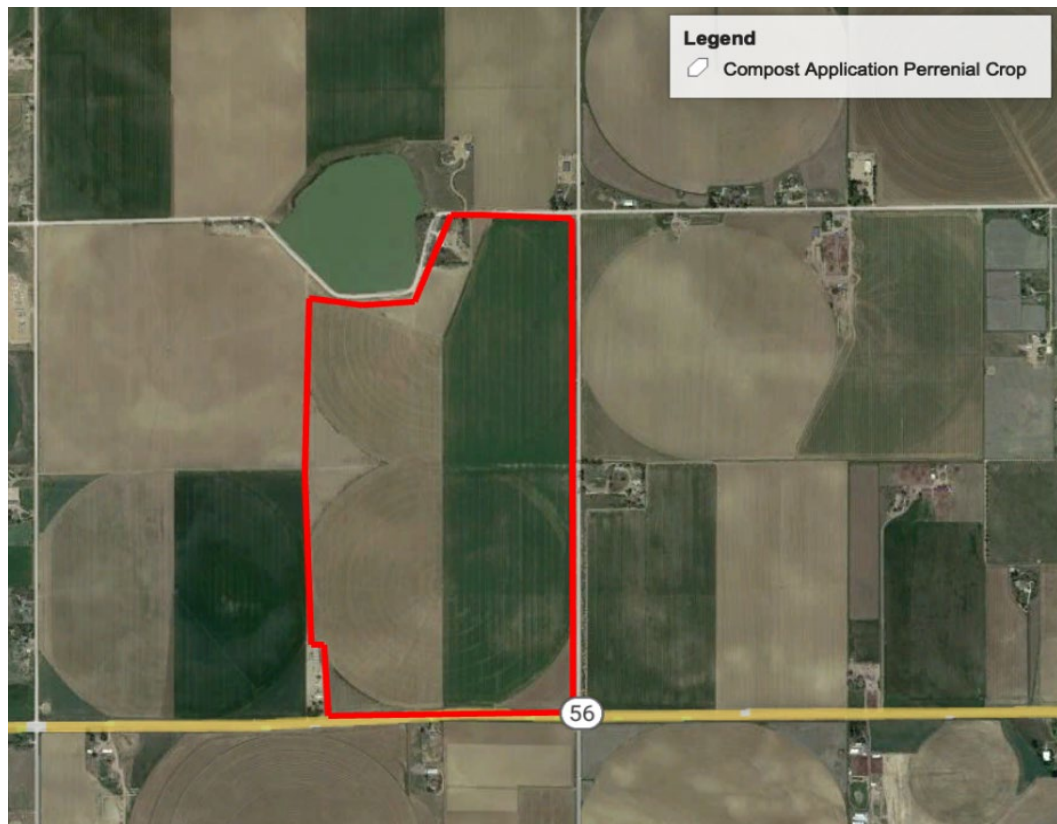
Applied 1,950 cubic yards of compost

*A multi-generational family farm
committed to community connections*

RESTORE COLORADO GRANTEE

Olander

The Olanders operate a multi-generational family farm that raises grain, forage, and livestock in Larimer County, Colorado. The farm is under pivot irrigation and processes much of the grain they raise through their malting facility, Root Shoot Malting. The Olanders are outstanding stewards of plants, soil, and water. They also partner with local, state, and federal governments, as well as non-governmental organizations, to secure land to be used for agriculture. They have built a community and employ dozens of local residents on their farm and at their malting facility. The Olanders were awarded Restore CO funds to continue reducing their dependence on synthetic fertilizers and build their soil fertility with local compost from nearby dairy farms. The Olanders used the award money to apply 1,950 cubic yards of compost on 650 acres of land in 2022. By partnering with their neighbors and supporting their local community they help reduce carbon emissions and recycle animal waste to build soil health.





Women-owned and operated

16 acres of dry land and pasture

RESTORE COLORADO GRANTEE

Longtable FarmStand

Ryan and Taylor Muglia are the owners and operators of Longtable Farm in Lyons, Colorado where they manage and irrigate 20 acres of leased land and raise sheep, pigs and chickens. They implement planned grazing on their pastures, but with Colorado's often unpredictable rainfall it can be challenging to manage recovery periods between grazing and maintain pasture fertility. Ryan and Taylor received a grant award from Restore CO to improve the fertility of their soil, which will also increase the quality of the forage they feed their livestock.

Taylor also works a full time job as a coordinator for the Quivira Coalition Apprentice program across the Front Range and the eastern plains in Colorado. She works extremely hard to keep their farm animals and customers happy while helping Quivira build future generations of land stewards across Colorado and the Mountain West. Ryan and Taylor applied 250 cubic yards of compost across 16 acres of dryland and irrigated pasture through Restore CO.





*Sharing holistic agricultural
practices across the community*

350 cubic yards of compost
on 23 acres

RESTORE COLORADO GRANTEE

Dryland AgroEcology Research

Nick DiDomenico and Marissa are leaders in the Regenerative Agriculture movement in Boulder County. They steward land themselves, while helping other farmers in the community with the design and implementation of conservation practices to restore their own lands. Nick and Marissa are keen observers of natural processes and are exploring using indigenous seeds and techniques to restore land and raise food in Boulder, Colorado. They have planted thousands of trees and educated hundreds of community members of all ages on the use of indigenous seeds, plants and livestock. With the Restore CO grant award, they purchased and applied 350 cubic yards of compost across 23 acres. Their work has a positive impact on the community and it is hoped to continue supporting their efforts to heal land through the use of holistic agricultural practices.



Agroecology Research

Legend

- 📍 Elk Run Farm - Drylands Agroecology Research
- 🔲 Untitled Polygon





*A local expert on critical pollinators is
building habitat for the native bee population*

500 woody species
for native bees

RESTORE COLORADO GRANTEE

Boulder Valley Honey

Chris Borke is what Mad Agriculture calls a “wisdom keeper.” Chris is one of the leading experts in the Boulder community on keeping and caring for bees. He runs Boulder Valley Honey and keeps his bees across several properties in Boulder County. Restore CO enabled Chris to implement a unique project planting 500 woody species across his land, supporting his commercial bee enterprise and providing food and habitat for the native bee population. This project used earthworks, compost, and woody species from the local conservation district and serves as an example of what can be accomplished by providing funds to farmers who would not have had the capital or materials to implement without this support.





*New farmer building a local
vermicomposting business*

6 cubic yards of compost
on 1 acre

RESTORE COLORADO GRANTEE

SwitchGears Farm

Brett Matson is the owner and operator of SwitchGears Farm. He leases 3 acres of land and raises market gardens to serve the Longmont, Boulder and Denver communities. Brett is new to the property and learning how to manage wind, rain, and the challenging dry periods that can occur in northeastern Boulder County. He supported a local vermicomposting business, producing a very high quality compost, and also used his funds to support single stream composting produced by A1 Organics. Restore CO funded 6 cubic yards of compost application to 1 acre of land on Brett's property.



URBAN COMPOST DISTRIBUTION

2021: Restore CO, in collaboration with A1 Organics and Ace Hardware oversaw a compost giveaway program with the goal of raising awareness about Restore CO while distributing compost to urban gardens. Participating Restore CO restaurants were given coupons for free bags of compost to distribute first to diners who mentioned Restore CO. Remaining coupons were distributed to any other diners, with digital coupons distributed to members of each restaurant's newsletter distribution list and individuals who visited the Restore CO website. This strategy was not successful due to a combination of factors including: misalignment between a restaurant distribution point and the idea of compost, limited awareness of the coupons by the public, limited redemption rates of coupons of any form, and point of sale coupon redemption issues at a key participating hardware store.

2022: Boulder County, in collaboration with Eco-Cycle oversaw a compost giveaway program as part of Eco-Cycle's Carbon Farming program. This program targets urban residential landscapes including community and household gardens. In total 1,800 bags of A1 Organics EcoGrow compost were distributed via locations in Longmont and Boulder. This effort was marketed in collaboration with International Compost Awareness Week. A1 Organics EcoGrow compost is created from food waste collected from participating restaurants via outreach and education from Boulder County's Partners for a Clean Environment (PACE) program. This strategy was successful in distributing all available compost to the targeted participants.

MARKETING THE IMPACT OF GRANTS AND RESTAURANT FOOD WASTE REDUCTION

The impacts of grants and restaurant food waste reduction was marketed through the information presented on page 14. Additional marketing will take place within the next six months. More information can be found in the "Ongoing Work: goals to accomplish within 6 months" section of this report.

SOLICITATION OF FIRST GRANT APPLICATIONS

The solicitation of grant applications was not required for the pilot year in 2021. Pilot partners were initially selected that were in line with the specific needs for the first round of the program. In year two, Zero Foodprint and Mad Agriculture conducted an RFP with the goal of deploying \$60,000-\$75,000 and received 19 applications for over \$300,000 and awarded grants for \$63,095.90.

ANNUAL EVALUATION AND REVIEW OF LESSONS LEARNED FROM PARTICIPATING RESTAURANTS FROM YEAR TWO

2021 was a challenging year for restaurants amid the disruption of the COVID-19 pandemic. Zero Foodprint was able to begin outreach in new food related sectors (compost companies, online retail, etc.) and plans to expand these efforts in 2022. Zero Foodprint also successfully engaged corporations on participation including Eco-Products and Oatly. Outreach efforts will be expanded with targeted advertising via social media and increased storytelling assets from the practices under implementation.

Based on lessons learned in year one, a pivot was made from providing compost coupons via restaurants to a curbside compost pick up program. By partnering with Eco-cycle and leveraging their existing Carbon Farming program we were successful in reaching urban backyard farmers and providing them with free compost. This program helped grow the existing movement of backyard carbon farming in Boulder County.

REVISE CAMPAIGN AND SOLICIT PARTICIPATION OF ADDITIONAL RESTAURANTS

By the end of the grant period, we have a goal of reaching 50 participating restaurants and raising \$200,000 annually. This amount would allow Restore CO to be financially self-sustainable and continue to grow across Colorado as a self-funded initiative. Zero Foodprint has discussed a statewide "Healthy Soils Challenge" with the Colorado Department of Agriculture, and we hope to enhance business outreach and corporate sponsorship through this collaboration, significantly increasing the impact of this program.

Zero Foodprint and Boulder County's communications team ran a targeted social media influencer campaign, from May to August of this year, working with five micro-influencers in the Denver and Boulder area on content including Posts, Reels, and Tik Toks. Together, this content received a total of 34,200 views. The best performing piece was a video by @theamandabittner that garnered 17,200 views on Tik Tok and 9,743 views on Instagram with 179 shares and 324 saves. Zero Foodprint will continue to leverage influencer marketing in the ongoing operations of the program with the City of Boulder and the Colorado Department of Agriculture.

SHARE SUCCESSES AND LESSONS LEARNED WITH REGIONAL PARTNERS

Beyond the initial participating municipalities, we also conducted outreach to the Colorado Department of Agriculture, the Regenerative Recovery Coalition, the City of Fort Collins, San Miguel County, High Country Conservation's ResourceWise program, Farm Runners, Rocky Mountain High Plains Cooperative, Quivira Coalition, Colorado State University, the University of Colorado, the Denver Office of Sustainability, Naturally Boulder, the New Hope Network, the Colorado Restaurant Association, Walking Mountain Science Center, and the Sustainable Living Association to solicit additional partners in promoting the program.



Using knowledge to scale a solution

LESSONS LEARNED

- Farmers and press are interested in this new approach.
- Outreach from Boulder County, the City of Denver, the City of Boulder, and other credible local stakeholders was an effective motivator in helping Restore Colorado onboard 32 businesses, even amidst a pandemic.
- Combining the aligned objectives of multiple different organizations (local government, non-profits, and for-profits) proved to be a highly effective model for creating change. Restore CO would not be a success without each of those institutions leveraging their individual strengths.
- The coupon based compost giveaway was ineffective. Likely due to a combination of factors including: the distribution point at restaurants not aligning with the idea of compost, limited awareness of the coupons by the public, the limited redemption rates of coupons of any form, and point of sale redemption issues at a key participating hardware store.
- The COVID-19 pandemic was a challenging time to conduct business outreach, though many restaurants were undeterred by the challenges of COVID-19 and eagerly signed on to the program anyway. This points to the strength of the idea and suggests that it will grow even more as the economy continues to recover.
- Staff members of participating Restore CO restaurants are passionate and knowledgeable about the program. This could potentially help with educating diners and increasing employee retention at these restaurants
- Utilizing a food recovery platform, like Copia, is expensive. It is unrealistic for restaurants with small margins and limited staff to participate and continue to fund a food recovery platform. An affordable and local solution with technical capabilities would be beneficial.
- Restore CO's "Give a Ton [of carbon emission reductions]" public donation campaign was of limited success. Many citizens are interested in regenerative agriculture and healthy soil, but it is hard to mobilize the act of donating toward investing in healthy soil. However, this also points to the value of the Restore CO model where supporting compost application and healthy soil becomes the default at participating restaurants.

- Many local governments and state agencies are interested in collaboration on the generation of private sector funds for local and statewide carbon sequestration projects. The Restore CO program has been able to secure public-private collaboration at the state level with the Colorado Department of Agriculture and at the local level with an ongoing collaboration with the City of Boulder.
- Compost can be a cost-prohibitive conservation practice for many farmers. Providing financial support for experimentation with new practices has enabled implementation.
- Distributing compost on agricultural lands at scale requires specialized equipment that is not widely available in the local market.
- In our application we estimated working on 100-600 acres of working lands to apply 17,000-100,000 cubic yards of compost, considering compost application rates from the Carbon Cycle Institute. Our original estimations on application rates were off for the solicitation of this grant, but the estimated acreage was accurate and we plan to stay within the estimated range of yards per acre by the end of the grant period. These projects required between 1/16th and 1/8th inches of compost, which was less than our originally estimated application rate. We expected a similar number of compost partners in year two and therefore needed to amend our compost yard estimate. We estimated this grant will enable 200 acres of practice with up to 3,000 yards of compost over the initial two year period.
- Overall farmers shared an overwhelming sense of gratitude for the grant award and expressed feeling very fortunate to have been a part of this amazing program. This project empowers farmers with resources, technical assistance, and sometimes labor to support the implementation of practices that they were interested in pursuing, but were unable to implement due to financial or time constraints. These practices have the potential to help the soil become more productive, stimulating plant growth and improving the natural resources under the farmers' management (habitat, fertility, erosion prevention, biomass production, etc.). Several farmers have noted more vigorous growth where compost has been applied including Mark DeRespinis of Esoterra Culinary (2021 Restore CO award recipient) and Nick DiDomenico of Drylands Agroecology Research (2022 Restore CO award recipient).

- Across the two years of the project we have worked with 11 farms with a diversity of operations including: raising vegetables in both urban and rural settings, managing pastures, growing row crops, managing hayfields, and producing honey. We have also served a vertically integrated grain farm which raises, processes, and malts their grains before marketing them directly to customers. Most of these customers are businesses who operate their brewing across the project area. We have also funded one project that created wild bee habitat and woody plantings.
- We have supported a diverse group of farms within the headwaters of the South Platte Watershed including: urban and rural farms, new and legacy farms, and small and large scale farms. The farms span four counties in the Front Range of Colorado: Boulder County, Larimer County, Adams County, and the City and County of Denver.
- Land access is a challenge for many farmers. This program has helped farmers to give back to the land and has in some cases strengthened the relationship between farmers and their landlords.
- There have been some challenges with logistics including quality of compost material and proper timing of practices. These challenges have been fueled by unforeseen variables such as inflation increasing the cost of fuel and compost materials. Some farmers felt pressure from cash flow and debt service to 3rd party vendors, a tolerance for debt and the associated risk varied between farmers.



ONGOING WORK: GOALS TO ACCOMPLISH WITHIN SIX MONTHS

SOCIAL CAMPAIGNS

Mad Agriculture, Boulder County, and Zero Foodprint have developed a team to manage communication campaigns, develop the Restore CO image, and push content to potential media outlets. In the coming months we have three targeted social media campaigns planned to (1) bring more restaurants onboard, (2) encourage the applications of farm projects and general engagement, and (3) get consumers excited about the program and ready to support partnering restaurants. These campaigns will go out separately, but will have a cohesive feel, bring narratives of restaurants and farmers to life, and present clear calls to action. Short video stories will continue to be released across platforms as they are developed.

Printed postcards proved successful and Zero Foodprint will continue to deploy them for ongoing projects.

ENGAGING REGIONAL PARTNERS

Discussion will continue with the Colorado Department of Agriculture around a statewide "Healthy Soils Challenge". Additional presentations will be given to the statewide network of green business programs to solicit further municipal and non-profit promotion of the Restore CO initiative.

HOW WE CONTINUE MOMENTUM BEYOND THE TERM OF THE GRANT

One of the primary goals of the social media campaigns is to bring more restaurants and businesses into the Restore CO program.

The program was able to meet total revenue goals despite the number of business participants falling just short of our initial target. Over \$305,000 was contributed by corporate sponsors and over \$200,000 is expected to be distributed in 2023 as a result of the collected funds. Formalizing collaboration with the Colorado Department of Agriculture on a "Health Soils Challenge" will be a key driver of awareness and participation in the program in the future. The Colorado Department of Agriculture has set lofty goals of generating \$5,000,000 per year for conservation practice implementation through the private sector. Zero Foodprint is planning ongoing outreach for restaurant participation in collaboration with the City of Boulder and the Colorado Restaurant Association. Boulder County has committed \$40,000 to carbon

sequestration grants in 2023 and will continue to engage other regional leaders and provide in-person outreach to restaurants through the PACE program.

COMPOST FOR URBAN GARDENERS

New ideas for 2022 include:

- Working with compost retailers to fund a price point discount for compost bags for any customer
- Hosting a compost sale at select compost retailers along with promotional signage for Restore CO
- Hosting a compost giveaway at an in-person gathering that includes chefs, farms, and urban gardens
- Providing a large amount of compost at farmers markets during the spring

FOOD WASTE AWARENESS AND DIVERSION

The Business Guide to Reducing Food Waste will be distributed to restaurants through new outreach campaigns administered by PACE. PACE will also provide sustainability advising to businesses who desire help with implementation or assistance outside of these topics.

MAD!



Sustainability,
Climate Action
& Resilience

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