



COMPOSTING & RECYCLING in COLORADO

Rutger Myers
Compost & Carbon Farming Director



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Who is Eco-Cycle?

- One of the oldest and largest non-profit recyclers in the nation.
- Started recycling in 1976 making Boulder one of the first communities in the nation to recycle.
- Long history of working with Boulder County and BoCo communities



ecocycle.org

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THE STATE OF
**RECYCLING
& COMPOSTING**
IN COLORADO

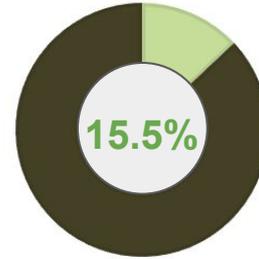
REDUCING WASTE AND BUILDING
A CIRCULAR ECONOMY

2024
8th edition

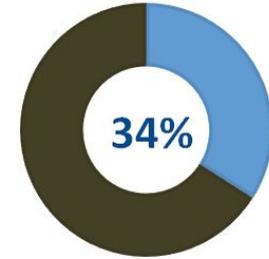
CoPIRG

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Colorado is one of the worst states at recycling



Colorado



National average

But Boulder County and many cities therein are Zero Waste leaders:

- Boulder County's = 38% diversion rate
- City of Longmont = 38%
- City of Boulder = 52%

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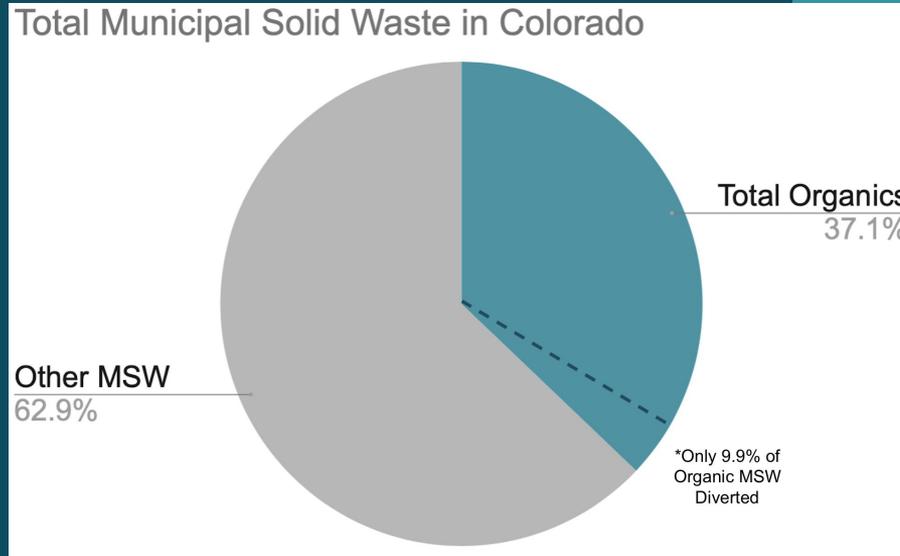
Why Compost?



- Reduces landfill methane emissions
- Increases carbon sequestration in soil
- Builds soil health, increases nutrition of crops
- Helps soils retain more moisture, builds drought resilience
- Turns a climate problem into a natural climate solution!

Organics in Colorado

- Organics (food and yard waste) account for 37.1% of municipal solid waste.
- Only 9.9% of organics are diverted for compost or other beneficial use.



Two Statewide Studies: 2022 & 2024

Colorado Department of Public Health and Environment
Jace Driver – Environmental Protection Specialist
4300 Cherry Creek Drive South
Denver, CO 80246-1530

Project Number: 197-2021-0145
August 29, 2022



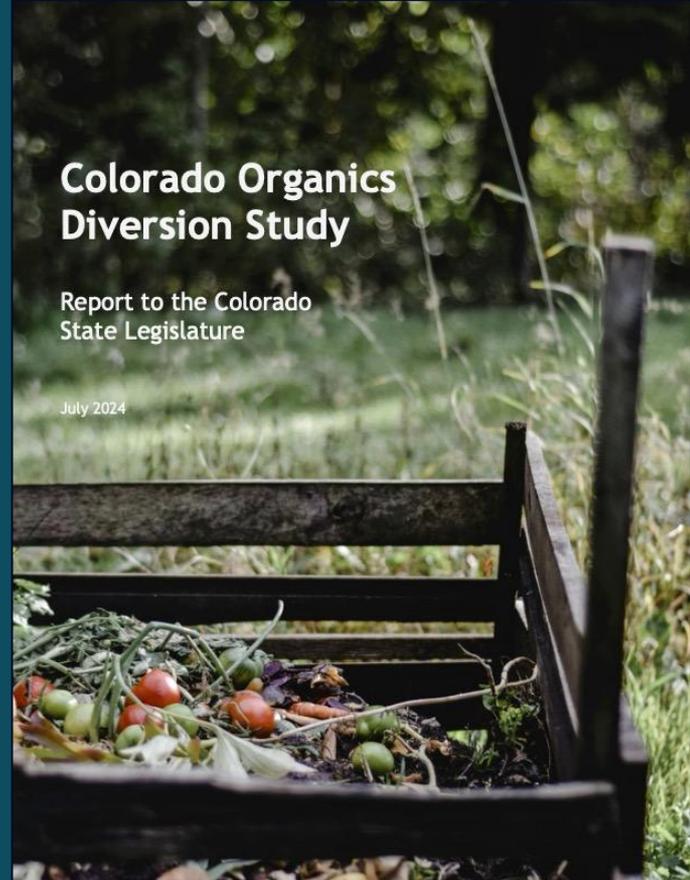
Colorado Statewide Organics Management Plan: A Framework for Regional Organics Opportunities



Colorado Organics Diversion Study

Report to the Colorado State Legislature

July 2024



Barriers to Composting In Colorado



- State & local permitting/land use regs
- Siting challenges/lack of facilities
- Low landfill tip fees
- Lack of end markets for finished compost
- Contamination
- Lack of public awareness of importance of composting/participation
- Transportation from collection to facilities
- Workforce shortage

Organics Management Plan 2.0 Scenarios

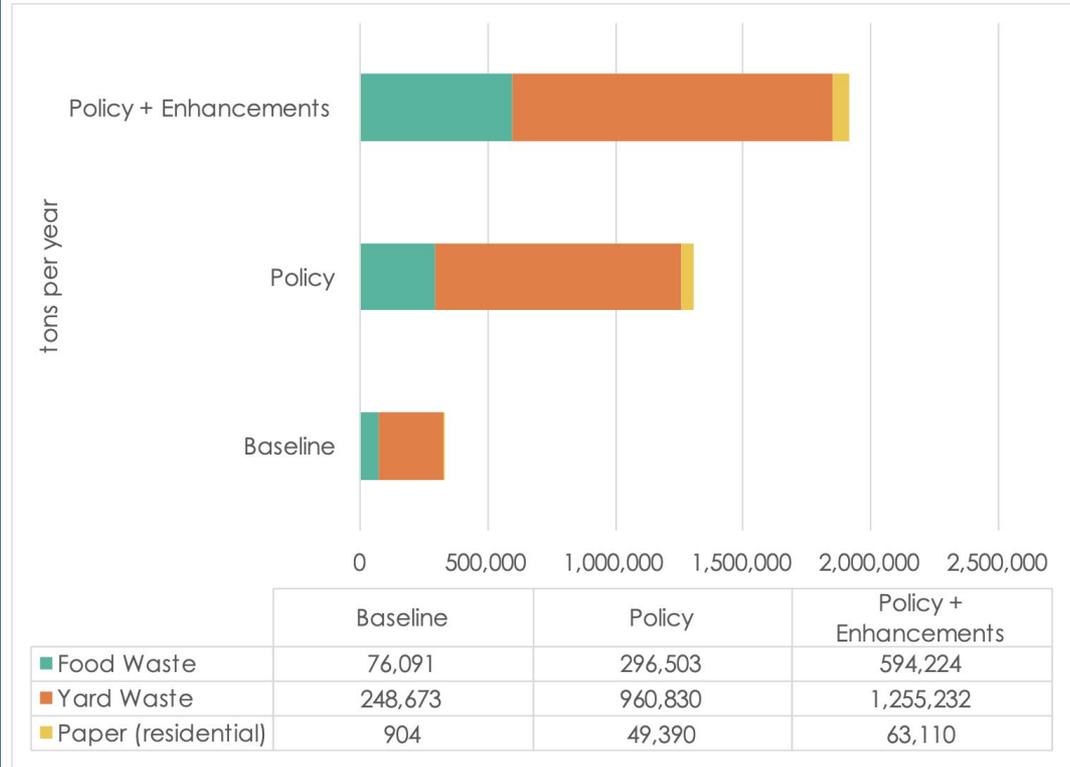
Scenario 1:

- Residential food scrap and yard waste pickup added to existing trash routes
- Require food waste collection for businesses within 20 miles of a compost facility generating 20 tons/yr

Scenario 2 = Scenario 1 plus:

- Community education
- Residential drop-off sites
- Mandated collection for all businesses

Figure 9: Organic MSW diversion tonnage by material (2036)



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
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 10 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
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

New Compost Facilities Needed Under Two Scenarios

ES-3. Number of new facilities needed by region

	Policy Scenario				Policy + Enhancements Scenario			
	Front Range	Eastern Plains	Mountains	Western Slope	Front Range	Eastern Plains	Mountains	Western Slope
New CESQ	0	14	17	5	0	20	24	6
New Class I County - Level Facility	2	0	0	0	2	0	0	0
New Class I Regional Facility	0	1	3	1	0	1	3	2
New Class III Regional Facility	4	1	0	1	6	1	0	0
Total	6	16	20	7	8	22	27	8

Multi-Scale Decentralized Approach: CESQ Examples

Growth of Small-Scale Entrepreneurs:

- Compost Colorado: Denver
- Farm to Table: Durango
- Compost Queen: Fort Collins
- Wompost: Aurora
- Elements Mountain Compost: Salida
- Scraps: Denver

On-Farm Composting with Regenerative Ag:

- Eco-Cycle pilot with ten BoCo farms



ELEMENTS

mountain compost

SCRAPS  rooted in
compost®



Education & Outreach

- Critical to reducing contamination
- Helps residents understand their compost bin is a **soil making machine**, not a garbage bin
- Builds relationship between residents and their local farmers and increases community buy-in



End Markets for QUALITY Compost

Market Potential

Statewide

- Could use up to 3.2 million cubic yards of finished compost annually
- Potential demand for 5x more compost than is produced

Locally

- Boulder County residents account for roughly 13% of compost purchased in Colorado (58,000 - 82,000 cubic yards).
- Boulder County's compost market has the potential to expand by 50%.

Need for Quality

- Many compost facilities have year-end surplus of unsold compost.
- In Colorado, only 31% of composters sell to farmers.
- Farmers share that their greatest concern about buying finished compost is contamination.



Opportunity for Boulder County to Lead the State

- Pursue multi-scale, decentralized composting infrastructure for Boulder County.
- Produce high-quality compost that meets local regenerative farmers' standards.
- Adopt policies and robust education programs to reduce contamination.





THANK YOU

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