



COLORADO
Department of Public
Health & Environment



Accelerating Composting in Colorado: *An Update on OMP 2.0*

June 5, 2024

Meet the Panel



John Carhart
Eunomia

john.carhart@eunomia-inc.com



Winn Cowman
Cowgirl Compost Co

winn@cowgirlcompostco.com



**COWGIRL
COMPOST CO**



Jace Driver
CDPHE

jace.driver@state.co.us



COLORADO
Department of Public
Health & Environment



Dan Matsch
Eco-Cycle

Dan@ecocycle.org





Building on OMP 1.0

Jace Driver, CDPHE



Recap: 2022 Organics Management Plan



Evaluated the generation, transportation, and disposition of four primary waste streams:

- Municipal solid waste, biosolids, forest waste, agricultural waste

Survey and stakeholder findings:

- Up to 40% of the waste going to landfills is comprised of organics
- A wide variety of management methods are still in use, from burning to zero waste strategies
- Existing organics diversion infrastructure can only handle about 5% of the materials currently being disposed of (without significant investment)
- Access to infrastructure, economics, awareness cited as biggest hurdles



Recap: 2022 Organics Management Plan



Plan Recommendations:

- Increase CESQ volumes and create mid tier food waste options in permitting structure (Completed in May 2024)
- Broad policy recommendations: disposal bans, generator diversion requirements, state procurement rules, etc.
- Organics specific diversion goals - labeled as near term and long term

In summary, this gave the state an excellent look at where organics management was, and provided the justification needed to make a meaningful regulatory change

SB23-191: Organics Diversion Study



Build on the findings of the OMP



Study elements:

- Diversion modeling
- Infrastructure assessment
- GHG modeling
- Transportation modeling
- Cost considerations



Primary deliverables:

- Toolkit for infrastructure development
- Well researched policy recommendations
- Funding mechanisms
- Specific organics diversion goals with time frames

Final report due to the legislature
August 1, 2024



Infrastructure Assessment

John Carhart, Eunomia



Infrastructure Assessment

Goals:



Create actionable parameters to consider what type of facilities are needed for organics management

- Parameters can include volume generated, distance to existing infrastructure, population density



Identify where those facilities could be located within the state



Facility Assessment Criteria



**Expected
Diversion Volumes**



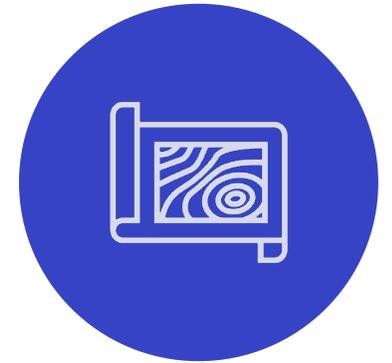
Excess Capacity



**Chemical
Composition**



End Markets



**Available Public
Land**

Expected Diversion of Organics Waste from Landfill

1

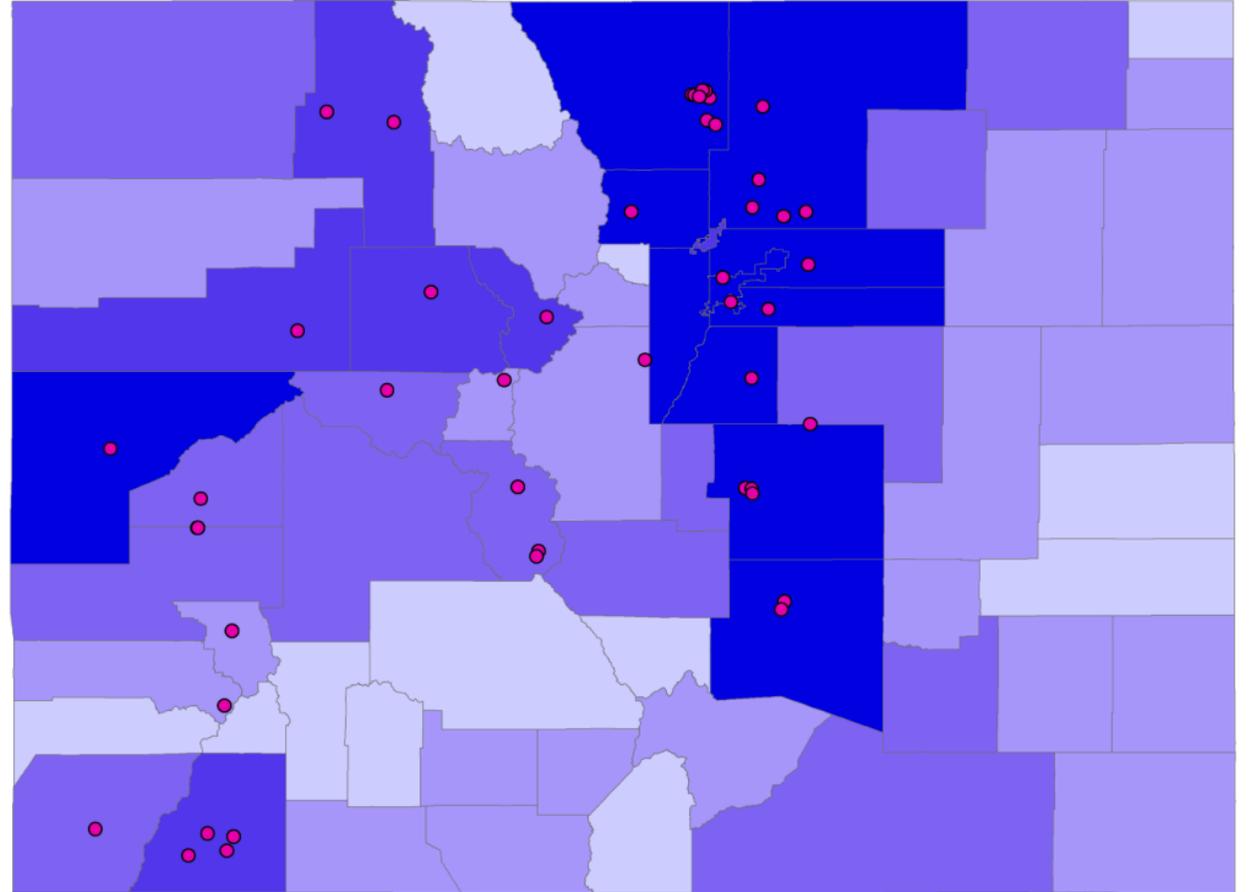
Expand organics collection

2

Compare to current capacity

3

Identify where infrastructure is needed



Initial Results for Composting Infrastructure Needs



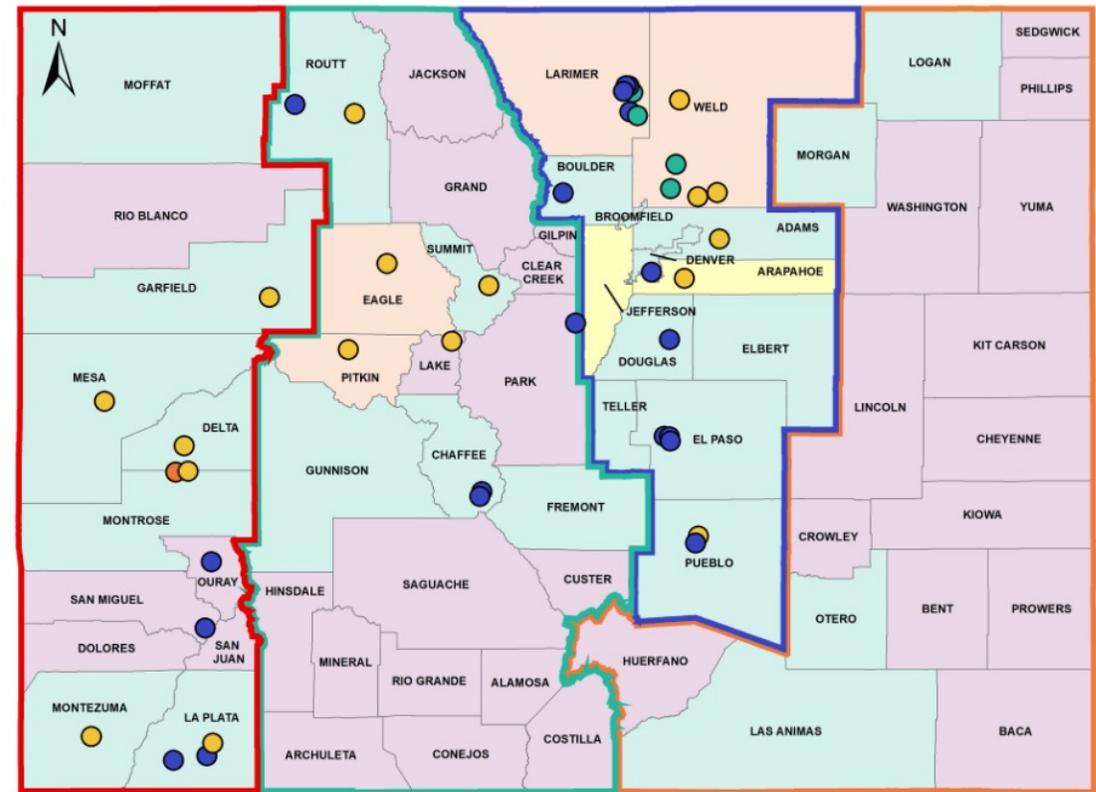
CESQs for low generating counties



Opportunities for regional facilities



Potentially ~60 new facilities (majority CESQ)



Compost Facility Type	Served by: Scenario 2	Regions
● CESQ	 CESQ	 Eastern Plains
● Composting-Class I	 Existing Composting Facility	 Front Range
● Composting-Class II	 Regional	 Mountains
● Composting-Class III	 Standalone Yard Waste	 Western Plains



Colorado Specific Considerations

*Winn Cowman,
Cowgirl Compost*



Local Considerations



Climate

- **Weather**
- **Greenhouse Gas (GHG) emissions**
 - From transportation
 - Technology-based (windrow, ASP, AD)



Generators

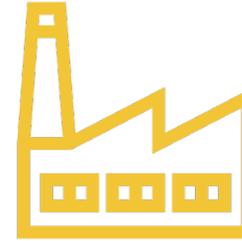
- **Commercial**
- **Residential**
- **Multi-family**

Local Considerations



Collections

- **Wildlife... Bears**
- **Population densities**
- **Transportation routes**



Processing Infrastructure

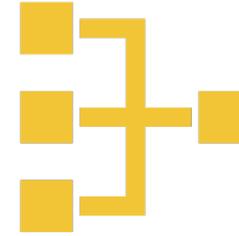
- **CDPHE Regulations – Facility Classes (CESQ, I, II, III)**
- **Population**
- **Agricultural & wildfire needs**
- **Water availability and impacts**
- **Technologies**

Local Considerations



End Markets

- **Governments and Institutions**
- **Procurement requirements**
- **Agriculture**
- **Landscaping**



Existing Systems

- **Processing facilities**
- **Haulers**
- **Funding**
- **Local control & ordinances**



Education & Funding

Dan Matsch, Eco-Cycle



Education Section Preview



Toolkit: companion document to the report

- Intended audience: local governments, haulers, entrepreneurs to provide tools to develop new collections and processing infrastructure
- Assessment of available local resources
- Outreach strategy to businesses and residents, including on food waste reduction
- Guidance on creating a clean compost stream



Recommendations to CDPHE

- Web-based guidance and resources for infrastructure development, including the Toolkit, as the goal of any mandate to come
- Webinar(s) to help understand compliance, timeline for implementation, and resources available





Education Section Preview

Education on end use and market development

- Develop template procurement language, best practices for municipal use of compost
- Develop resources on compost use with Dept. of Ag, Dept. of Transportation

Review of educational materials from other states

- States with food scrap recycling mandates and landfill bans
- States with yard debris landfill bans

Funding Recommendations Preview



Consider dedicating a portion of C3 Enterprise fund (or RREO and FRWD) to new organics infrastructure development as the only fund with CDPHE authority



Office of Economic Development and Trade (OEDIT) should create a path for startups to receive low interest loans



Department of Local Affairs (DOLA) should create a path to fund compost infrastructure as community-focused climate resilience (best fund is specific to communities impacted by mineral extraction)

Recommendation to consider raising tip fee if goals aren't met

Funding Section Preview



Federal funds

- Stimulus funding is short-lived and doesn't match our timeline well
- Recommendation that the state look to apply for federal funding as an entity as new opportunities arise



End-market development programs or funds

- Report examines ag use, wildfire remediation, erosion control, others



Recommendation that local entities plan regionally to make best use of limited funds

- Utilize new permit classifications to reduce costs



COLORADO
Department of Public
Health & Environment



Thank You



About Eunomia

Eunomia is an independent sustainability consultancy driven by a genuine passion to make a positive change to the clients we work with and the communities they operate in. Founded in 2001, we have been pioneers in the sector - early advocates for helping NGOs as well as leading public and private sector organisations in the UK and overseas to adapt their approach and adopt more sustainable processes.

Our consultants are experts in the field, deeply immersed in the subject with the technical knowledge and skill to offer clients innovative, clear and practical recommendations. We are committed to finding solutions to better protect the planet, while supporting the wider aims and needs of our clients.

Each client is treated as an individual, with consultants taking the time to understand their objectives and how best we can support them. This personal service ensures a strong relationship is forged, based on honest and regular communication. It also ensures if these objectives change, there is the flexibility to adapt.

As an established leading independent consultancy, clients can have complete confidence that consultants will offer evidence-led solutions based on robust, impartial thinking that offer both pragmatic and positive outcomes.