



County of Los Alamos

Food Waste Composting Feasibility Study – Follow Up Discussion

August 9, 2022
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History

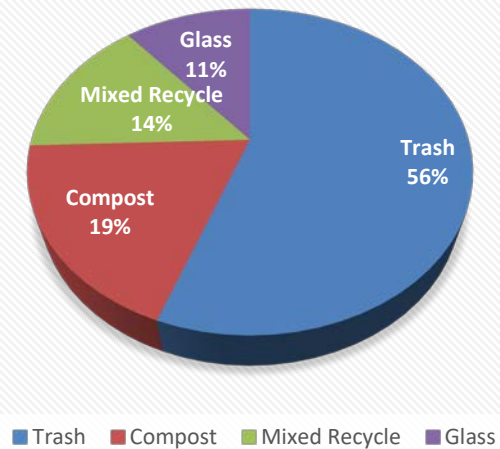
- **2018** LAC invested \$1.2 million to purchase a methane extraction system for the closed landfill
- **2018** ESB and Zero Waste Team began exploring food composting and food waste prevention
- **November 2018/January 2019** - Site visit and ESB presentation of Food Composting Operations
- **April 2019** - Conducted Restaurant Food Waste Study – 13 of 28 restaurants responded they were *“Looking forward to proposed County Composting”* and emphasized the necessity for convenience
- **April 2019** - Save As You Throw (SAYT) Subcommittee Appointed by ESB and County Council - The final report dated July 16, 2020, stated: *For a SAYT program to be successful in Los Alamos County at a future time, a food waste composting program and food waste prevention campaign should first be explored to maximize waste diversion from the landfill. A frequently heard public comment during this study was “A desire for a municipal food composting program”*
- **May 2019 – August 2019** Hosted 15 booths at 2019 Summer Concert Series – We heard overwhelming support in favor of food composting. 19% of materials collected were compostable.
 - Hosted outreach booths at community events and published dozens of articles to promote food waste prevention and backyard composting
- **December 2019** – Waste Stream Overview presented to County Council. Council requested scope and cost for a Food Composting Feasibility Study
- **February 2020** – Staff returned to Council with proposed cost and scope for Composting Feasibility Study
- **August 2020 – April 2021** – Food Waste Composting Study and Design Services were advertised and awarded
- **April 2021 – March 2022** – Five public meetings were held to gather public input
- **April 2021 and May 2022** – Distributed 470, grant funded backyard compost kits to the community
- **March 2022** – ESB unanimously recommended to implement a food composting system at Bayo Canyon using the windrow method and providing drop-off sites for residents and curbside collection for businesses.
- **May 2022** – Food Waste Composting Final Report presented to County Council



LOS ALAMOS
Environmental Services

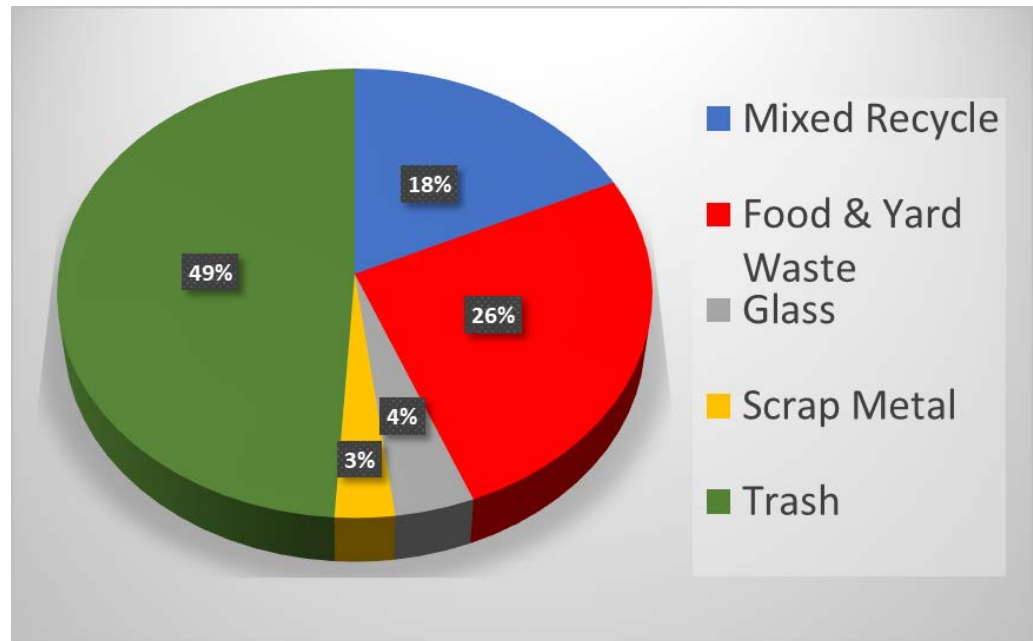


Zero Waste Stations Materials Collected at 2019 Summer Concert Series



Why Compost Food Waste?

- Food Waste is 20% of Waste Stream
- Food waste composting reduces our carbon footprint
- Need a viable solution for excess yard trimmings**
- Rio Rancho Landfill is estimated to close in 7 years
- Hauling and tipping fees increase annually



Food waste composting aligns with LARES Recommendations and 2022 County Council Strategic goals:

Protecting our environment and improving our open spaces, recreational, and cultural amenities. County open spaces and cultural attractions are greatly valued by the community and provide opportunities for recreational and economic growth; *appropriately allocating resources to ensure their resiliency and sustainability is important to our citizens.*

Investing in infrastructure. Balancing maintenance of existing infrastructure with new investments in utilities, roads, trails, expanded transit options, facilities, and amenities; and *promoting sustainable and resilient practices throughout the community,* such as carbon-neutral electric generation.

Yard Trimming Diversion Program

- Successful program
 - ~70% participation rate
 - ~1,000 tons of material collected in curbside program
 - ~3,000 tons collected annually from businesses & residents
- Limited end market (Biosolid composting and landscaping)
- Fire hazard at Eco Station
- Need a solution



Compost Study

Identify the most cost-effective location, technology, and collection plan for food waste processing

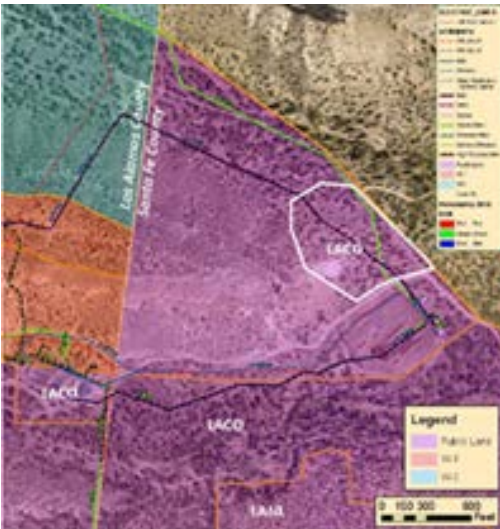
- ✓ **Provide a roadmap of what is best for the County and the environment**
- ✓ **Use as a decision-making guide**

Composting Technologies	Locations	Collection Method
Aerated Static Pile	Bayo Canyon	Drop Off Sites
Covered Aerated Static Pile	Eco Station	Curbside Collection
In-Vessel	Overlook Park Area 1	
Anaerobic Digestion (AD)	Overlook Park Area 2	
Windrow		

SCS and ESB Recommendation

On March 17, 2022, ESB unanimously recommended to implement a food composting system at Bayo Canyon using the windrow method and providing drop-off sites for residents and curbside collection for businesses.

- Capital Cost: \$2,011,000
- Operational Cost: \$581,341 annually (which includes new 3 FTE's for 7-day operation)
- Timeline: 2-3 years (permitting, purchase of equipment, design, building)
- Most cost-effective option



Triple Bottom Line Analysis

Economic Impacts	Compost Food and Yard Trimmings	Landfill Food and Yard Trimmings
Tons (3,000 Yard Trimmings and 1,500 Food)	4500	4500
Hauling Cost	\$55,800 hauling to Bayo Canyon	\$118,125 hauling to Rio Rancho Landfill
Disposal cost	\$ -	\$ 121,905
Labor Cost	\$245K full compost program	\$ 140,000
Total Cost	\$ 300,800	\$ 380,030
Cost per ton	\$ 67	\$ 84
Potential Off Set - Compost sales	\$10/cubic yard x 7,000CY = \$70,000/year	
Environmental Impacts		
Total Green House Gas Emissions (MTCO2E)	-341.45	396.79
Water Required (Gallons)	0	0
Supports Councils 2022 Strategic Goals related to Environmental Sustainability	YES	YES
Citizen Impacts		
Customer Participation	Participation rate is expected to be 50%; however, this is currently unknown and will be monitored.	Currently over 70% of residents utilize the yard trimming program.
Cost to Customer	Nominal increase to monthly rate	Disposal cost of yard trimmings will increase from \$37/ton to current trash rate \$66/ton

Net result of food composting

Total Change in GHG Emissions (MTCO2E): **-738.24**

This is equivalent to...

Removing annual emissions from **156** Passenger Vehicles

Conserving **83069** Gallons of Gasoline

Conserving **30760** Cylinders of Propane Used for Home Barbeques

*For a comprehensive list of question, see Attachment B.

*Food Composting analysis based on ESB and SCS consultant recommendation.

Next Steps

- Impact to fees
- Return to Council for a decision on food composting program
- Questions

