

Achieving Increased Diversion Processing Innovations in San Jose



GreenWaste Recovery, Inc.

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US Composting Council

19th Annual Conference & Tradeshow

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**US Composting
Council**

Developing Solutions to Manage Organics



Vertical Integration Supports Innovation

- GreenWaste Recovery, Inc.
 - Residential & Commercial Collection
 - Material Processing
- Zanker Road Resource Management, Ltd.
 - C&D Material Processing
 - Open Windrow Composting
- Zero Waste Energy Development Co.
 - Organics Processing
 - Renewable Energy Generation



Spirit of Innovation A Brighter Shade of “Green”

- Challenges Lead to Innovative Solutions
- Developing Solutions *Before* Regulations
- Integrated Facilities for Processing
- Facility Adaptation & Calibration
- Public/Private Partnerships
 - Municipalities & Non-Profits
 - Commercial & Residential



Material Processing Untapped Organic Stream

- Recyclable Materials
 - Single-Stream
 - Source Separated
- Organic Materials
 - Yard Waste
 - Compostables & Food Scraps
- Garbage
 - Residential
 - Multi-Family Dwellings (MFD)



City of San Jose – Recycling Programs Multi-Family Dwellings

- Investment in Outreach & Education
- Low Participation Rate in Programs
- Valuable Garbage Being Landfilled
- Need for Front-end Behavioral Change
- Offered Innovative Back-End Processing



Processing Innovations in San Jose A “Dirty” Solution

- GreenWaste and Z-Best Offered a Solution
- State-of-the-Art Material Recovery Facility
- High-Recovery “Dirty” Processing Line
- Haulers to Deliver Garbage to GreenWaste
- Process Garbage from Multi-Family Dwellings
- Recover Recyclables and Organics from Garbage



Vertical Integration Facilitates Innovation

- GreenWaste Material Recovery Facility, San Jose
 - Processing Multi-Family Garbage
 - Organic Fraction is Transferred to Z-Best
- Z-Best Composting Facility, Gilroy
 - Composting Organics from MFD Garbage
 - Closed In-Vessel Composting
- **Overall 75% Recovery Rate for Garbage**



Garbage Statistics

San Jose's Multi-Family Dwellings

- +/- 33 Collection Vehicles
Deliver MFD Garbage Daily
- +/- 300 Tons of MFD Garbage
Processed on the "Dirty" Line Daily
- +/- 35 Tons of Garbage
Processed in the MRF Hourly
- +/- 30 Green Jobs Created
And More to Come....



BUT...
Together, we can do **EVEN** better...





Partnerships Are the Key To Success

GreenVision Goal #3

- Receive 100% of electrical power from clean, renewable resources

GreenVision Goal #5

- Divert 100% of waste from our landfill and convert waste-to-energy

GreenVision Goal #8

- Ensure 100% of public fleet vehicles run on alternative fuels



A New Partnership Emerges: Zero Waste Energy Development Co.

- Formed By GreenWaste & Zanker
- City of San Jose **GreenVision Goals**
- Divert Organic Waste From Landfills
- Create Clean Renewable Energy
- Power Collection & Processing Operations



ZWED' San Jose Anaerobic Digestion Facility

- High Solids Organics-to-Energy Facility
 - Dry Fermentation Anaerobic Digestion
 - First Commercial Facility in the US
 - Capable of Processing >150,000tpy
 - Over 3MW of Renewable Energy (24/7)
- Project Development & Operations
 - Environmental Review - **Spring 2011**
 - Permitting & Entitlements - **Summer 2011**
 - Site Development - **Summer 2011**
 - Facility Construction - **Fall 2011**
 - Facility Operational - **Winter 2011**