San Jose's Multi-Family Program

Counting Down to Zero Waste

US Composting Council 2011
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City of San Jose



Presentation Overview

- San Jose Background
- Multi-Family Challenges
- Program History
- Zero Waste Initiative
- New Compostables Program
- Program Results



San Jose Background

- 10th largest city in US
- 3rd largest in California LA is #1 & San Diego #2
- 1,000,000 residents
- 178 square miles
- 70% waste diversion rate



Multi-Family Solid Waste Overview

- 96,000 multi-family households
- 3,300 complexes
- 90,000 tons of multi-family waste generated annually
- Exclusive agreements through 2021
 - GreenTeam of San Jose: Collection & Recycling Processing
 - GreenWaste Recovery: Organics Processing



Program History – Recycling Begins 1993

- Multi-family recycling program established 1993
- Limited waste diversion (12% max)
- Multi-Family Challenges
 - High resident turnover
 - Outreach challenges
 - Inconsistent property management
 - Disconnect with bill payers



Program History – 2002 Commingled Program

- Implemented commingled recycling program 2002
- Fully-commingled recycling in carts & dumpsters
- Increased outreach
- Diversion increased from 12% to 18%
- Contract requirement for 35% diversion



Program History – 2003 Compostables Pilot

- New compostables pilot proposed by GreenTeam in 2003
- 1/4 of garbage transferred to Z-Best composting facility
- Recyclables manually removed, organics composted
- 35% diversion target met



San José Green Vision

Achieve these GOALS by 2022:

- 1. 25,000 Clean tech jobs
- 2. 50% Reduction energy use per capita
- 3. 100% Renewable electrical power
- 4. 50 million sq-ft retrofitted green bldgs
- 5. Zero Waste & waste to energy
- 6. 100% wastewater beneficially re-used
- 7. Sustainability in General Plan
- 8. 100% alternative fuel City vehicles
- 9. 100,000 new trees planted
- 10. 100 miles of interconnected trails



Expanded Multi-Family Compostables Program

- Opportunity to Expand Existing Pilot
 - Waste stream rich in organics & recyclables
 - New GreenWaste processing facility
 - Existing collection and processing contracts
- Expanded Program Began July 2008
 - All multi-family garbage delivered to GreenWaste MRF for recyclables processing
 - Organics transferred to Z-Best facility for composting



Recyclables Processing

GreenWaste Facility

- Located in central San Jose, near GreenTeam corp yard
- 42,000 square foot building
- New state of the art equipment
 - Bulk Handling Systems
 - Unique side-by-side singlestream & MSW sort lines
- 300-kw solar-powered system







Recyclables Processing

- Front loaders deliver garbage directly to Green Waste MRF
- Recyclables Recovered
 - 28.9% recovery rate
- Some processing residue removed
- Remaining material prepared for transfer to Z-Best composting facility



Organics Processing

Z-Best Composting Facility

- Located in Gilroy, 35 miles south of central San Jose
- 150 acre facility
- 1,500 tpd permitted capacity
- 600 tpd "in-vessel" limit for food waste & MSW



Organics Processing

Composting Process

- Composted for 4 months, in-vessel
- Cured for 4 weeks in open windrows
- Screenings remove film plastics and other contaminants

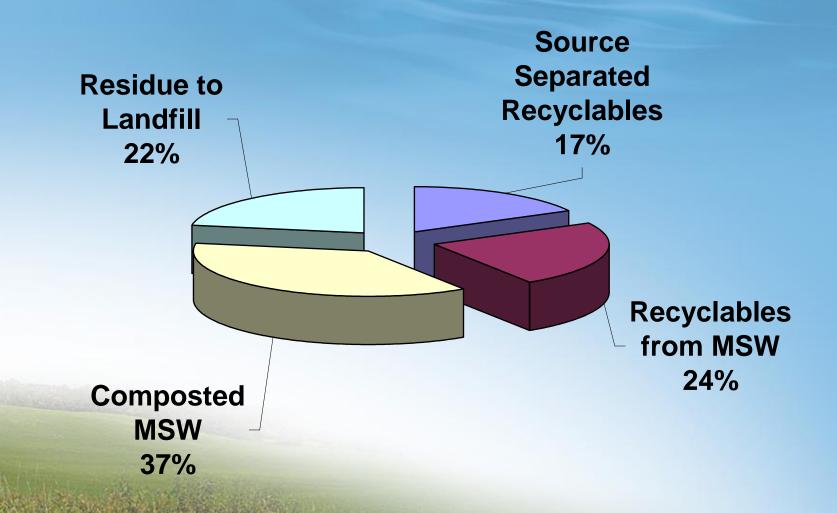
Compost Product

Finished compost marketed to local landscapers





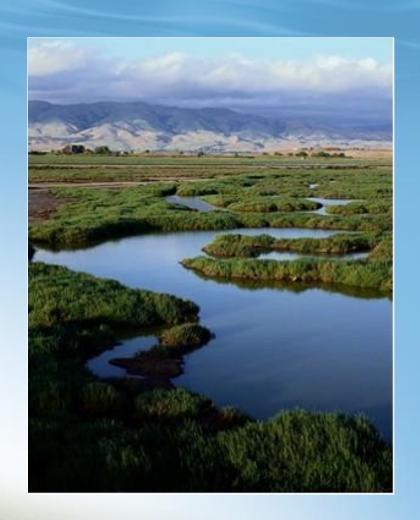
78% Multi-Family Diversion (July 2008 – December 2010)





Program Benefits

- Preserves landfill capacity, lower disposal costs
- Transportation efficiencies
- Provides 65 new "green" jobs
- Avoided Mandates / Enforcement
 - Less burden on property managers, program invisible to residents
 - Buy-in from California Apartment
 Association
- Low cost, moderate rate increase



Next Steps for Zero Waste

- Increased multi-family recycling efforts
 - Policy of highest & best use, traditional recycling encouraged
 - "Free" recycling available to all
 - Pilots and Rewards Program to boost recycling participation
- Single-family pilots
 - Food waste collection
 - Back-end processing



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