

US EPA ARCHIVE DOCUMENT

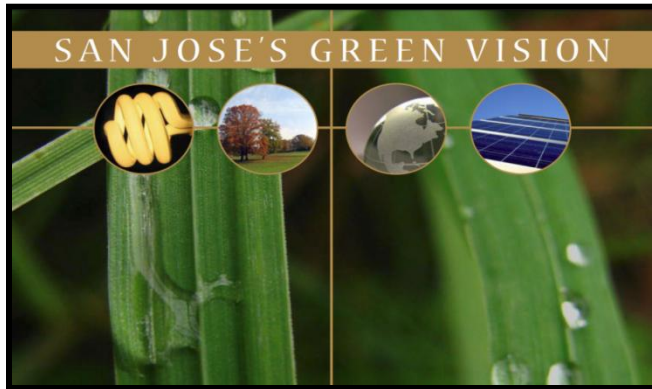
San José Zero Waste Initiative & Thermal Conversion Demonstration



California Bioresources Alliance Symposium - September 12, 2012
Michele Young - Organics Manager - City of San Jose

Integrated Strategic Planning

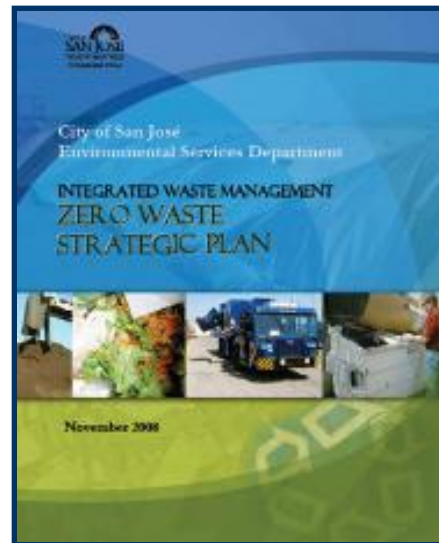
San Jose's Green Vision



Plant Master Plan



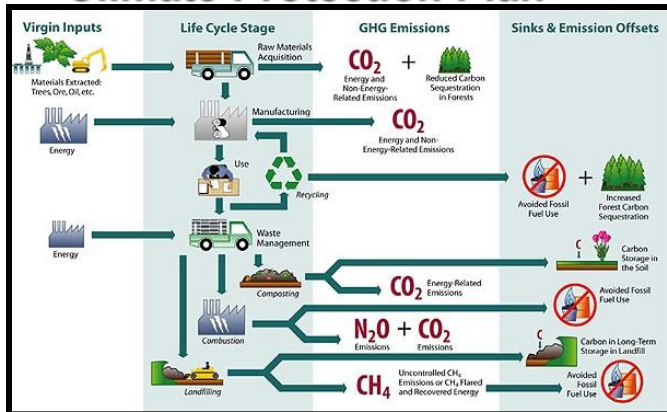
Zero Waste Strategic Plan



Organics-to-Energy Strategic Work Plan



Climate Protection Plan



San José Green Vision

Renewable Energy



100% Renewable by 2022

100% Green City Fleet by 2022

Zero Waste



Zero Waste by 2022

75% Diversion by 2013

Renewable Energy from Urban Waste

Current Infrastructure - Options Analysis



Public Approval and Implementation



Feedstock Drivers

- Characterization Studies – 33% Organic
- Wood Waste transported to Co-gen
- Biosolids used as ADC



Commercial Agreements – July 2012

1. Collection



2. Organics Processing

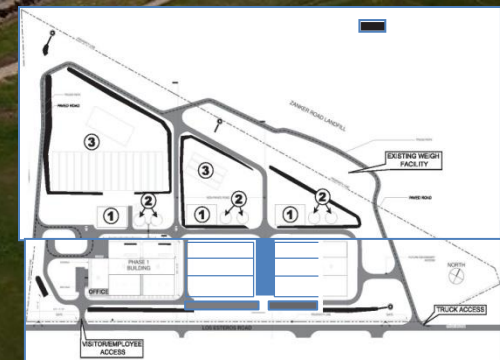


Zero Waste Energy Development Integrated AD/Composting

- High Solids Dry Fermentation AD
 - Kompoferm -Field-Tested German System
 - Compost trenches for digestate
 - Low BTU material to ZBest compost facility
- Odors and GHG Emissions
 - Managed in Enclosed System
- ZWED Experienced with Innovation in San Jose
 - Partnering with Bulk Handling Systems



AD Project Site



Site Grading



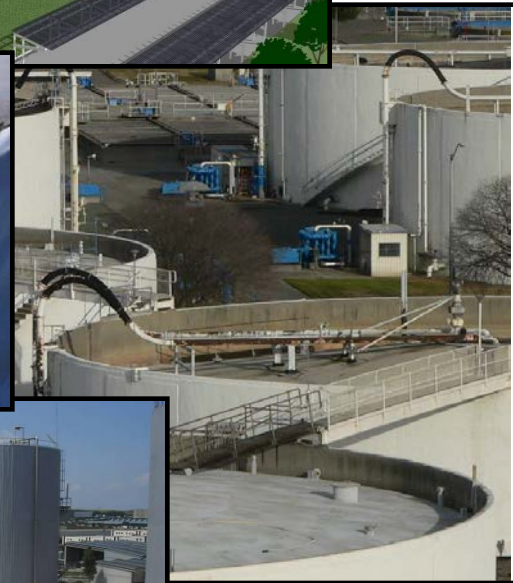
Gasification Pilot Project

- Demonstration Policy
- Grant Partnership
- Two Phase Process
 - Feasibility
 - Demonstration
- Regional Collaboration



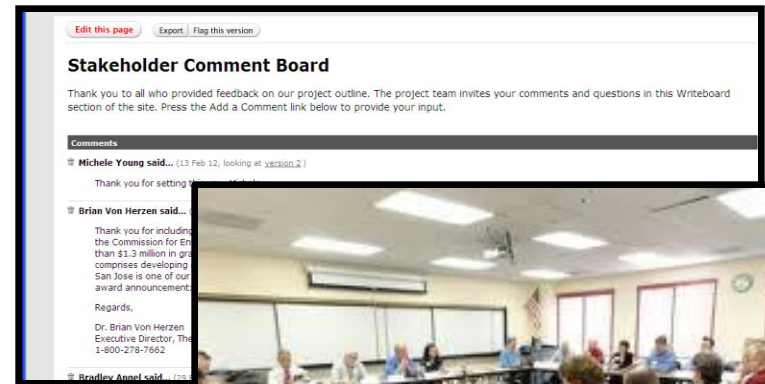
Demonstration Policy

- Use of land & facilities
 - Financial assistance
 - Non-disclosure agreement
 - Procurement fast track
 - City risk-sharing
 - Short approval time
- Harvest Power
 - San Jose EIC
 - FOG Energy



Project Coordination

- Joint Grant Proposal
 - City of San Jose – land, consultant and staff time
 - Harvest Power – staff & capital costs for demo unit
 - California Energy Commission – \$1.9 million grant
- German Technology Vendor
 - Agnion
 - Proprietary Processes
- Multiple Consultants
 - HDR and URS
- Stakeholder Process



Gasification Project Site



Technology Analysis

- Massive amount of analysis being done
- Need Modification for Specific Conditions
- Technology companies rapidly changing
- Data not available from NA models
- Evaluation Criteria are Key
- Expert Review and Peer Review



Supporting Conversion Technology Development

- Siting and Permitting Support
- Land Leases
- Directing waste to facilities
- Collection for separation of materials
- Risk-Benefit sharing
- Collaborating on Grant Proposals
- Compost Marketing
- Policy Drivers



Thank You



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