City of San José: Using Mixed Waste Processing to Transform the Commercial Solid Waste System

Maryland Recycling Network/
Solid Waste Association of North America
Annual Conference – June 26, 2015
About San José

- 50 miles south of San Francisco
- 10th Largest City in U.S.
- 3rd Largest City in CA
- Population 1,000,000+
- Diverse Demographic Profile
- Generates 1.8 Million Tons Waste/Year
- Overall Waste Diversion 73%
- 180 square miles
Time for Change

2007 Green Vision
- Divert 100% of waste
- Convert waste to energy

2008 City Waste Characterization
- 79% disposed recoverable

2008 MFD Mixed Waste Processing
- 75% diversion
Commercial System 1995-2012

- Competitive Marketplace
- 20-25 Franchised Haulers
- City Fees Based on Volume of Solid Waste Collected
- 22% Diversion Rate
- Inconsistent Customer Rates & Services
- Negative Environmental Impacts
Development Process

Seven Years of Planning
- Stakeholder Engagement
- City staff and Consultant team
- Elected Official Communications

Focus Areas
- Infrastructure Development
- Fee Stabilization
- Environmental Goals

Two RFPS (2010)
- Collection & recyclables processing
- Organics processing
Commercial System 2012-2027

Delivering world class utility services and programs to improve our health, environment and economy
Newby Island Resource Recovery Park

- MRF
- Organics
- Gas-to Energy
- C&D
- CNG Fueling Station, and
- Landfill

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Newby Island Resource Recovery Park

Most Advanced Materials Recovery Facility in World
- 110 tons per hour / 400,000 tons per year
- 300 motors
- 200 employees

Four processing lines at the MRF:
- Residential single stream
- Commercial single stream
- Commercial **Dry** Waste
- Commercial **Wet** Waste
Zero Waste Energy Development Co.

- 90,000 tons per year
- 16 digesters for dry digestion
- 270,000 tons/year planned capacity

**Power:** up to 1.6 MW capacity

**Compost:** ~12,000 tons/year

**Employees:** 17

Newby Island Resource Recovery Park

Anaerobic Digestion Site
Organic Stream (OS) Specifications

AD material requirements

- ≤ .25% glass allowance
- ≤ 30% fiber allowance
- OS 1  ≤ 5% ($75.40)
- OS 2  5-10% ($80.29)
- OS 3  10-20% ($90.35)
- OS 4  20-30% ($99.58)
What’s next for mixed waste?

- Single Family Garbage
- Continue to review emerging technologies
- Lawrence Berkeley National Laboratory
- Evaluate and Adjust
Thank You

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