

RESOURCE RECYCLING

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MRF of the Month

GreenWaste Recovery, Inc.

Owned by a private solid waste and recycling company, GreenWaste Recovery, Inc.'s MRF in San Jose, California is a state-of-the-art facility that includes side-by-side processing lines for commingled recyclables and municipal solid waste (MSW) collected curbside from the area's residential, commercial and multi-family sectors. According to company officials, the single-stream line processes materials from approximately 48,000 households and 2,000 commercial customers, while the MSW line services all multi-family dwellings in the City of San Jose (93,000 households from 3,200

complexes). In fact, at a recycling rate of almost 76 percent, San Jose's multi-family service is one of the nation's better performing multi-family collection programs.

In 2008, the facility processed approximately 36,000 tons of commingled recyclables and 89,000 tons of MSW. The MRF's three processing lines utilize a combination of mechanical and manual sorting procedures for single-stream, MSW and the portion of the facility where materials from both lines are combined to optimize efficiency. For example, when handling the incoming MSW stream, GreenWaste employees are responsible for sorting through the material and extracting everything that can be recycled, including paper, glass and plastic containers and tin and aluminum cans. From there, the remaining organic and green waste is shipped to the Z-Best Composting Facility in Gilroy, California, which is owned and operated by GreenWaste's sister company,

Zanker Road Resource Management.

The MRF's single-stream processing line has 20 sorting stations (one floor-sort, seven pre-sort and a dozen back-end), but can increase to 21 for quality control purposes. The MSW processing line has 16 sorting stations (three floor-sort, eight pre-sort, two mid-line and three back-end). However, when the two lines combine, as the single-stream shift ends and the second MSW shift begins, the total number of sorting stations reduces to 18 (a dozen mid-line and six back-end). Equipment utilized in the plant was designed for GreenWaste by Bulk Handling Systems.

Operational challenges for the GreenWaste plant include non-recyclable items (e.g., plastic bags) entering the stream and becoming caught in equipment, and glass entering the MSW line, becoming a contaminant to the compost. To overcome these challenges on the front-end, the company is educating residents to dispose of glass in their single-stream container, not their MSW container. On the back end, the MSW line includes a pre-sorter, whose job is to manually remove glass from the stream before it enters the mechanical portion of the MSW line. Altogether, 125 employees are responsible for processing the incoming streams.

And, talk about energy efficient, the entire facility, including an adjoined transfer station, is powered by a 300-kilowatt (kW) solar panel system, designed and installed by Silicon Valley solar installer, SolarCity. Consisting of 1,502 dual-array solar panels, the 1.8-acre system – said to be one of San Jose's largest commercial solar installations – generates 408,000 kW-hours of zero-emission electricity annually, enough to power approximately 40-50 area homes. Said Richard Cristina, GreenWaste Recovery president, "The project truly reflects the value our company places on green technology and environmental stewardship."

*Know of a North American-based materials recovery facility that you feel *Resource Recycling* readers should know about? If so, e-mail your recommendation, with hi-resolution pictures, to justin@resource-recycling.com, and your facility may just be highlighted in a future "MRF of the Month" column.

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Technical Specifications*

GreenWaste Recovery, Inc.

Location:

San Jose, California
Multi-Material MRF

Start-up date:

2008 (replacing existing facility)

Number of processing lines:

Three

Throughput:

Tons per hour: 47
Single-stream: 22
MSW: 25

Approximate tons of material processed (2008):

Single-stream: 36,000
MSW: 89,000

Recycling rate: 85 percent (includes side-by-side single-stream and MSW processing lines)

