

As most communities across America work to reach 50-percent diversion, some communities are exploring ways to go beyond traditional recycling programs. The City of Fresno, in California's Central Valley, has become an unlikely national leader on progressive environmental issues. Yet, the Fresno City Council has taken the next bold step toward zero waste.

Fresno has traditionally been slow to react to state mandates, requiring aggressive waste diversion activities. The California Integrated Waste Management Act of 1989 (AB 939) requires that all California jurisdictions "achieve a landfill diversion rate of 50 percent by the year 2000, and reduce, re-use, recycle and compost all discarded materials to the maximum extent feasible before any landfilling or other destructive disposal method is used."

Eleven years later, the year 2000 arrived and the city distributed recycling and organics containers to all residential households. Commercial recycling was offered to all businesses in 2003, and construction debris recycling was mandated in 2005. Fresno now was on the front lines of waste diversion, backed by strong city leadership.

### Taking an aggressive approach

The City of Fresno Solid Waste Management Division collects 450,000 tons of trash, recyclables and green waste annually from 106,000 single-family homes, 2,100 multi-family complexes (approximately 30,000 units) and 4,000 businesses. As waste collection is a core business service of Fresno's Public Utilities Department, the department is responsible for the management of these resources in the most cost-efficient and ecological manner.

As such, the recycling staff, in partnership with its recycling processor Sunset Waste Systems (Fresno), began aggressively marketing the city recycling services to the business community – and the feedback indicated immediate support from the businesses. To reflect the growing needs of the business community, Sunset enlarged the list of accepted recyclables to include mixed paper, film plastics and hard rigid plastics. With new overseas markets taking root, the city expanded collections to include all paper, plastics, metals and glass.

The city's contract with Sunset included a per-ton processing fee minus revenues generated from end-market sales, which meant that no additional processing costs were added and residents' rates were not increased for the expanded services.

Since then, Fresno has achieved a 62-percent waste diversion level, as submitted in a detailed waste study to the California Integrated Waste Management Board (Sacramento) in 2007. Fresno's achievement of surpassing the 50-percent waste diversion goal has brought forward the next frontier: Going beyond 50 percent and toward zero waste.

In an annual report presentation to the city

# Going beyond 50 percent

State mandates, aggressive waste diversion goals and a desire to experiment with less conventional recycling programs has put one community on the road to zero waste.

by Robert Gedert

council in May 2007, city staff was instructed by the council to bring forth a resolution declaring a new, more aggressive recycling goal, beyond 50 percent. The Fresno City Council, on June 26, 2007, unanimously adopted the following two waste diversion goals:

- ◆ A 75-percent waste-diversion goal by 2012
- ◆ A zero-waste goal by 2025.

### The greening of Fresno

Adopting a goal of 75-percent waste diversion and pursuing zero-waste principles is consistent with, and in furtherance of, *Fresno Green* – *The City of Fresno's Strategy for Achieving Sustainability* – the city's adopted guide toward a greener future. A team of staff from various

city departments answered the call to create a comprehensive guide toward greening the city, and *Fresno Green* was born in April 2007.

The fifth *Fresno Green* vision goal, "City as a Good Steward," reads as follows: "The City of Fresno will lead by example, by greening up its facilities and practices, embracing a zero-waste initiative, providing appropriate staff resources, and collaborating with other municipalities and agencies to develop regionally-based green programs."

Under the "City as a Good Steward" vision goal are several strategies. Two strategies, in particular, stand out:

- ◆ **Fresno Green Strategy 17:** Achieve zero waste to landfills. Encourage businesses to emulate sustainable natural



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cycles, where all discarded materials are resources for others to use.

- ◆ **Fresno Green Strategy 18:** Implement user-friendly recycling and composting programs, with the goal of 75-percent reduction of solid waste disposal to the landfill.

### Building better definitions

The first step toward Fresno's newly declared goals was to better define zero waste. As noted by several councilmembers, the self-described title lends itself to debate: Can we really reduce our waste output to zero? That is the very debate that Fresno desires to engage its residents and businesses in discussion and consideration of our wasteful practices.

As California promotes the use of a higher and best use waste hierarchy, Fresno took that theme one step further, declaring a zero-waste philosophy toward waste diversion. Zero-waste principles promote the highest and best use of materials to eliminate waste and pollution, emphasizing a closed-loop system of production and consumption, moving in logical increments toward the goal of zero waste through several core principles:

- ◆ Pursuing upstream re-design strategies to reduce the volume and toxicity of discarded products and materials, and promote low-impact or reduced consump-

tion lifestyles

- ◆ Fostering and supporting re-use of discarded products and materials to stimulate and drive local economic and workforce development
- ◆ Improving downstream recycling of end-of-life products and materials to ensure their highest and best use.

The success of zero waste requires that the concept of waste be redefined. In the past, waste was considered a natural by-product of our culture; now is the time to recognize that proper resource management, not waste management, is at the heart of reducing waste sent to landfills.

Resource management occurs at three key points:

- ◆ **Home.** Zero waste encourages reduced consumerism, which is ultimately beneficial for each household budget. Zero waste educates citizens about conservation, re-use and environmental purchasing patterns through delayed, long-term payback.
- ◆ **Businesses.** Zero waste cuts business costs, improves competitiveness and maximizes environmental performance.
- ◆ **Local government.** Zero waste reduces the unfunded mandate of trash collection, reduces operational costs and attracts economic vitality to the community.

Zero waste encourages local government, businesses and consumer partnerships to provide a new path toward stewardship of resources. Zero waste is about balanced alternatives, efficiencies, fiscal responsibilities, creative thinking and environmental stewardship.

With this empowerment from the city council, staffers have developed a zero-waste strategic action plan that outlines very specific actions for the next three fiscal years. This action plan was formally adopted by the city manager in March 2008, with full authorization to proceed.

Fresno's new-zero waste goal changes the way we look at waste generation, by focusing on three major components:

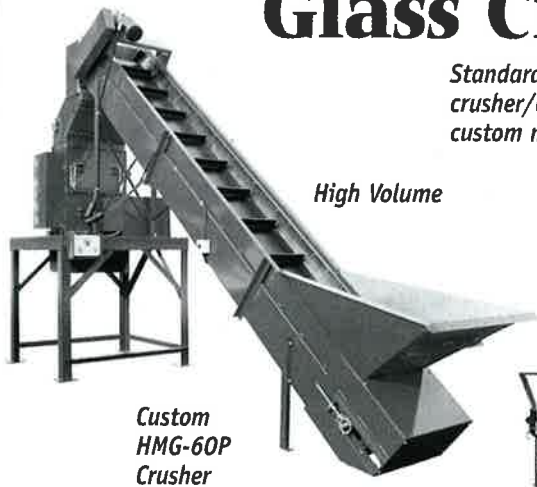
- ◆ **Waste avoidance:** Reduce up-stream wastes
- ◆ **Reuse of discards:** Re-use of mid-stream wastes
- ◆ **End-of-pipe diversion:** Recycle down-stream wastes.

The action plan specifies actions that engage residents, businesses and schools in each of the three components of reduce, re-use and recycle. Although the 3Rs has been an ongoing theme for several decades, the zero waste strategic action plan puts these concepts into specific actions.

The fiscal impact of the zero-waste strate-

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gic action plan is minimal for upcoming fiscal year, with most activity primarily based in public education and the building of relationships with the business and education community. However, the action plan builds new collection programs and activities for fiscal years 2010 and 2011. All new expenses, as implied through this zero-waste strategic action plan, will be incorporated within the annual budget request, as proposed by the solid waste management division to the city council each year.

The projected costs include an increase of \$100,000 per year in new advertising and public education costs, and a one-time investment of \$350,000 to initiate a commercial food scraps collection program. However, these costs will be absorbed in the current budget without rate increases by re-prioritizing planned budgetary expenses.

Ongoing operational costs for the commercial food scrap program will be covered by an organics collection fee to be proposed to the city council in 2010. Ongoing operational costs for the residential food scrap program will be covered by the existing green-waste collection fee, with no projected rate increase, as no new equipment or vehicles are needed.

### Taking a proactive approach

Fresno is currently engaged in several spe-

cific zero-waste action plans in the areas of public education, research activities, commercial business activities and initiating operational changes.

**Public education.** Fresno is working to develop a public education campaign that encourages consumers to reduce waste practices. Among other things, this campaign will include efforts to educate residents on backyard composting, Xeriscape landscaping and grasscycling. Additionally, city staff is developing a public education program that promotes buying in bulk, reducing single-serving purchases, and promotes re-use and secondary storefronts.

Beyond Fresno's public education efforts, the city is actively encouraging cooperative education campaigns with local green organizations. The city also is supporting the California Product Stewardship Council (Sacramento) to help facilitate producer responsibility of wasteful marketing practices and reducing toxics in consumer products.

**Research activities.** The city is undergoing several research activities to achieve its zero-waste goal, including researching organic technologies that can accept food scrap collection, investigating emerging waste reduction technologies and alternatives, and assisting in market development for compost and mulch.

A ban on expanded polystyrene (EPS) products and plastic bags is being considered, as the city examines the effects and distribution of EPS and single-use plastic bags in the Fresno market. The city is networking with businesses using both of these materials, while researching potential alternatives.

**Commercial business activities.** The city is sponsoring an annual Business Zero Waste Workshop, with featured speakers from various zero waste businesses demonstrating ways to work toward zero waste. In addition, the city is expanding the business recognition program to demonstrate zero-waste activity within the local business community, while developing an education campaign to inform businesses of the value and availability of waste exchange networks.

The city is increasing efforts to attract new green businesses to Fresno by establishing an economic incentives program for green businesses. In addition, the city is becoming more involved in the promotion and use of the Recycling Market Development Zone business grant/loan program provided by the state.

**Operational changes.** Municipal garbage collection will be audited to identify recyclables disposed of through the trash collection system. Residential, commercial and multi-family waste streams will be included in the audit to better determine the percentage of recyclables within the trash.

Once the audit is completed, a public education campaign will be designed to reduce recyclables deposited in the trash. In addition, a zero-waste characterization study will be contracted to provide waste analysis of the current collection systems, research additional options, and recommend actions targeted at reaching the zero-waste goal.

Recycling collection will be expanded to all local businesses thanks to the city mandatory recycling ordinance, and waste prevention and recycling guidelines will be established for large-venue events. In addition, the city will establish a household hazardous waste (HHW) collection facility within the city, as well as an HHW re-use center.

Most of the city's action items are not new ideas, but rather borrowed from many communities throughout the nation. The uniqueness of Fresno's strategic action plan is its comprehensiveness, with a strong emphasis on waste reduction.

More importantly, though, the action plan is supported by the mayor, city manager and city council. Such leadership in municipal government is rare and unique, but this type of leadership will bring recycling and waste reduction into the 21st Century. **RR**

Fresno's Zero Waste Strategic Action Plan can be found on the City of Fresno Web site at <http://www.fresno.gov/Government/DepartmentDirector y/PublicUtilities/SolidWaste/Recycling/Zero+Waste.html>

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