



A World Without Waste

In October 2007, San José unveiled its Green Vision for the future. The Vision provides a comprehensive approach to achieve sustainability through new technology and innovation. In adopting its Green Vision, the City established 10 Green Vision goals to achieve within 15 years:



San José Green Vision

1. Create 25,000 Clean Tech jobs as the World Center of Clean Tech Innovation
2. Reduce per capita energy use by 50 percent
3. Receive 100 percent of our electrical power from clean renewable sources
4. Build or retrofit 50 million square feet of green buildings



Tree Planting - Lee Mattheson MS



"Which World Do You Want?" by Student Art Contest Winner, Hyeongshin, Age 8 Parkview Elementary School, San Jose

5. Divert 100 percent of waste from landfill and convert waste-to-energy
6. Recycle or beneficially reuse 100 percent of our wastewater
7. Adopt a General Plan with measurable standards for sustainable development
8. Ensure that 100 percent of public fleet vehicles run on alternative fuels
9. Plant 100,000 new trees and replace 100 percent of our streetlights with smart, zero emission lighting
10. Create 100 miles of interconnected trails

The Zero Waste Strategic Plan (Plan) supports several Green Vision goals, including Goal 1 - create green jobs, Goal 2 - reduce energy use, Goal 3 - generate renewable energy, Goal 4 - build green, and Goal 7 - plan for sustainable development. However, the primary focus of the Plan is to identify the path to achieve zero waste, as articulated in Goal 5.



This goal, further described in the City's Zero Waste Resolution, was approved by the City Council in October 2007 and established the specific objectives of:

- 75 percent diversion by 2013 and
- Zero waste by 2022.

The resolution also identified the City's zero waste principles as:

- Improve "downstream" reuse and recycling of end-of-life products and materials to ensure their highest and best use
- Pursue "upstream" redesign strategies to reduce the volume and toxicity of discarded products and materials while promoting less wasteful lifestyles
- Support the reuse of discarded products and materials to stimulate and drive local economic workforce development
- Preserve land for sustainable development and green industry infrastructure

- Establish a policy to achieve zero waste going to landfills and incinerators by 2040.
- Adopt a citywide program that reduces the use of a disposable, toxic, or non-renewable product category by at least 50 percent in seven years.
- Implement "user-friendly" recycling and composting programs to reduce per capita solid waste sent to landfill and incineration by 20 percent in seven years.



Garden Preparation at Lee Matheson Middle School

In November 2005, in honor of World Environment Day, the City signed the Urban Environmental Accords.



The Accords are a declaration by participating city governments to build ecologically sustainable, economically dynamic, and socially equitable futures for their citizens. Signatories to the Accords agree to perform the following actions:

What is Zero Waste?

"Zero Waste" is a perception change. It requires rethinking what we have traditionally regarded as garbage and treating all materials as valued resources instead of items to discard. Zero waste entails shifting consumption patterns, more carefully managing purchases, and maximizing the reuse of materials at the end of their useful life.



Zero waste takes into account the whole materials management system, from product design and the extraction of natural resources, to manufacturing and distribution, to product use and reuse, to recycling or disposal.

In developing policies and programs to achieve zero waste, the City can both maximize diversion from landfills (through program implementation and facility development) and reduce generation of waste (through zero waste policies and education). Achieving zero waste entails encouraging the City, its residents, and its businesses to reevaluate what we view as waste.

Ultimately, zero waste contributes to achieving a greener community. In order to reach true sustainability, Plan strategies must address People, Planet, and Profit as a “triple bottom line,” achieving social, environmental, and economic sustainability.

Evaluating Zero Waste

Each of the Plan initiatives described in the policies, programs, and facilities sections of this report can be evaluated based on the following four evaluation criteria established for the zero waste planning process:

1. Increase Environmental Benefits to the Community
2. Improve Quality of Service
3. Support Local, State, and National Mandates
4. Address Fiscal Impacts

The following lists show the guiding principals for applying the four evaluation criteria.

Increase Environmental Benefits to the Community

- Reduce vehicle emissions to support Urban Environmental Accords Action 14
- Support San José’s Climate Action Plan
- Reduce and mitigate landfill and other facility impacts
- Invest in new, safe technologies and processes for infrastructure
- Consider environmental benefits and impacts in siting and permitting of new facilities
- Protect public health and the environment
- Analyze markets for recoverable materials to consider the highest and best use of materials and the implications of reliance on domestic and overseas markets

Improve Quality of Service

- Improve customer convenience such as offering a broader range of collection programs and container options; improving the recycling program for residents; improving call center responsiveness; and enhanced and targeted customer outreach



Newby Island Compost Facility

- Improve aesthetics - control of graffiti, litter and illegal dumping; specification of container types, quality, and placement
- Provide incentives to participate in, and maximize the effectiveness of, program initiatives
- Ensure that program initiatives are convenient, accessible and appropriate
- Ensure equity for all customers
- Create City operations that serve as a model for zero waste

Support Local, State and National Mandates

- Increase diversion to support the zero waste goal from the City's Green Vision Goal 5, the City's 2007 Zero Waste

Resolution, and the Urban Environmental Accords Action 4 (zero waste goal)

- Reduce the use of a disposable, toxic, or non-renewable product category by at least 50 percent in seven years to achieve Urban Environmental Accords Action 5
- Implement user-friendly recycling and composting programs pursuant to Urban Environmental Accords Action 6
- Support the City Sustainable Energy Policy and Action Plan
- Support the "Reduce, Reuse, Recycle" hierarchy
- Strengthen Environmentally Preferable Purchasing efforts
- Support Extended Producer Responsibility efforts
- Lead by example

Address Fiscal Impacts

- Minimize impact on customer rates and provide rate equity
- Minimize impact on City's revenue streams
- Minimize contract management and enforcement costs for programs
- Invest in infrastructure



- Invest in green jobs and economic development
- Address long-term fiscal planning and assess full economic impacts
- Understand the potential impact on system fees (hauling, tipping, franchise)

Community Engagement

Public engagement for zero waste is a fundamental and iterative process. The Commercial Solid Waste System Redesign project is the first large scale implementation within the Plan. Businesses have been involved in this initiative since February 2008 as described in Appendix D: Stakeholder Engagement Processes for Zero Waste. This appendix also describes outreach efforts related to reducing the proliferation of single-use carryout bags. These efforts have included retailer and grocery store stakeholders since February 2008. City staff will continue to seek input from appropriate audiences before implementing elements of the Plan.

Leadership

The City has implemented many state-of-the-art waste diversion programs for both the residential and commercial sectors, including single-stream recycling, innovative organics processing, and an effective construction and demolition debris recovery program. In 2000, the City achieved a 64 percent diversion rate which was the highest level of diversion by any big city in the country.

The City has also been a leader in developing fee structures and cost models that provide incentives to maximize waste diversion. Historically, the City has used its fee structure to encourage the private sector to develop new approaches to processing materials such as organics, construction and demolition debris, and mixed waste. As a result, the infrastructure for managing recoverable materials within San José is unique in California.

2008 was a significant year for the City's recycling programs. The City reasserted its national leadership with several projects, including implementing progressive waste diversion programs for multi-family residences, City facilities, special events and venues, and schools. Council also approved two significant evaluations of the City's largest waste streams: Commercial and Construction and Demolition (C&D). Finally, San Jose enhanced its influence in developing regional and statewide environmental policy with such initiatives as: sponsorship and passage of SB 1357 which will authorize up to \$20 million in unclaimed California Redemption Value (CRV) funds for community recycling efforts; staff appointment to the board of the California Product Stewardship Council; support for developing regional options for reducing single-use carryout bags; and appointment of staff to the California Integrated Waste Management Board (CIWMB)'s Organics Roadmap Taskforce.



Partnership & Collaboration

San José recognizes that the road to zero waste cannot be traveled alone and has sought partnerships to fulfill its mission. The City is an active member in each of the following organizations.

Bay Area Zero Waste Communities

Bay Area Zero Waste Communities is an informal group of zero waste cities that share information and work cooperatively on innovative zero waste policy solutions. Policy discussions include development of a model service-ware ordinance requiring the use of reusable, recyclable or compostable service-ware in restaurants.

BayROC

Founded in 1996, the Bay Area Recycling Outreach Coalition (BayROC) is a collaboration of staff representing over 40 San Francisco Bay Area cities, counties, and other public agencies. These agencies promote waste reduction and buy-recycled concepts through a variety of media campaigns focusing on personal action and behavior change.

California Product Stewardship Council

This organization was formed to advocate for “cradle to cradle” producer responsibility at the state and local level. Since its formation, the California Product Stewardship Council has helped the California Integrated Waste Management Board set aggressive priorities

for Extended Producer Responsibility and has supported legislation promoting take-back policies. The Council, which includes staff from San José, co-sponsored successful State legislation requiring manufacturers to create an infrastructure that makes it convenient for consumers to return mercury thermostats to retailers.

The Recycling & Waste Reduction Commission of Santa Clara County

This 10-member body of representatives from communities throughout Santa Clara County serves as the principal advisor to city and town councils and the Board of Supervisors of Santa Clara County on solid waste planning issues. The Commission also has state-mandated responsibilities, such as review and oversight of the Countywide Integrated Waste Management Plan and Siting Element, local Source Reduction and Recycling Elements, Household Hazardous Waste Elements, and Non-disposal Facility Elements. All of these reports are required by state law.

The Recycling & Waste Reduction Technical Advisory Committee (TAC)



San Jose Wetlands



This committee is composed of solid waste professionals from cities within Santa Clara County, representatives of the private solid waste industry, business representatives, and representatives of interested community organizations. TAC provides technical support and recommendations in the general area of integrated waste management and policy to the Recycling & Waste Reduction Commission. San José chairs the Source Reduction and Recycling Subcommittee which is developing a countywide carryout bag regulation to address the problems of disposable carryout bags on a regional level. The City is working with TAC to strengthen its regional collaboration and long-term solid waste planning role.

Green Cities California

City staff, along with representatives from 10 other major California cities, met in May 2006 to discuss leveraging their combined experience, influence, and sustainability goals to advocate for collective, urban, environmental action. In June 2008, the City formally adopted the Green Cities California Resolution, pledging to collaborate with local governments throughout the nation to adopt sustainable policies and practices.

Cities Keep It Clean Partnership

In September 2008, San José was the first city in the Bay Area to join the Cities Keep It Clean Partnership. San José committed to protect the San Francisco Bay from: trash,

mercury, e-waste, pharmaceuticals, pesticides, vehicle pollution, and runoff.

Bay Area Climate Collective

The City is an original signatory, along with San Francisco and Oakland, of the Bay Area Climate Change Compact. This Compact establishes regional leadership in fully supporting the statewide climate change goals instituted in Assembly Bill 32. The Compact encourages local action to reduce greenhouse gas emissions and recognizes that some challenges can best be addressed through regional partnerships. Compact signatories strive to enable and expand the environmental, economic, and equity benefits of climate action. The Compact also provides for achieving a more aggressive zero waste goal by 2020 instead of 2022.

Responsible Purchasing Network (RPN)

In 2007, the City joined RPN, an international network of buyers dedicated to socially responsible and environmentally sustainable purchasing. This organization offers information and training in Environmentally Preferable Procurement.

Bay Friendly Gardening Coalition

San José is a charter member of this coalition and is spearheading efforts to bring the program to Santa Clara County. The Bay Friendly Gardening Program promotes sustainable gardening and landscaping practices that help reduce waste, conserve



energy, save water, prevent pollution, and protect local habitat.

State Organics Roadmap Taskforce

City staff is a member of this statewide task force that is working with the Integrated Waste Management Board to reduce yard trimmings landfills by 50 percent. The task force is involved in lifecycle analysis for composting, siting, permitting, yard trimmings Alternative Daily Cover (ADC) reduction, and compost marketing.



Garbage Dumped at Newby Island Landfill

Zero Waste Plan Structure

The Zero Waste Strategic Plan includes this document and several technical appendices, including the studies undertaken by the City in 2007 and 2008 to:

- Identify the City's current disposal and diversion tonnages
- Characterize the City's disposed waste

- Identify opportunities for increasing diversion
- Describe the City's existing infrastructure
- Evaluate the policy, program, and facility options available to the City

The Plan provides an overview of key zero waste initiatives and describes policies, programs, and facilities that the City will need within the next 14 years to realize the City's vision of achieving zero waste.

Key initiatives include short-term goals to be implemented from 2008-2013, and long-term goals to be implemented between 2013 and 2022.

Short-term goals—divert 75 percent of waste from landfills:

- Enhance residential recycling to maximize recycling and composting from single-family and multi-family residents
- Redesign commercial waste system to provide recycling and composting services to all businesses and institutions in the City
- Enhance the construction and demolition debris recycling to increase diversion from the building sector
- Evaluate anaerobic digestion of food scraps at the San José/Santa Clara Water Pollution Control Plant
- Pursue opportunities to support Extended Producer Responsibility initiatives and target reduction of single-use carryout



bags as well as non-recyclable/non-compostable take-out food packaging

Long-term goals—get to zero waste:

- Modify existing revenue streams to mitigate funding lost from zero waste efforts
- Support implementing zero waste policies locally, regionally, and statewide, such as regional landfill bans of targeted materials and Extended Producer Responsibility
- Continue implementing mixed waste recycling of single-family residential garbage and recycling processing residue to ensure that all recyclable and compostable materials are diverted from landfills
- Develop and strengthen markets for recoverable and reusable materials, and lead by example, requiring recycled content in City purchased materials, and encouraging local market development
- Promote the future development of energy conversion technologies for converting residual wastes into energy
- Educate the public about the benefits of reducing wasteful consumption

Over the past year, the City completed the following studies to support the findings of the Zero Waste Strategic Plan. Some of the studies are included as appendices to this report or published on-line at:

<http://www.sjrecycles.org/zerowaste.asp>

Commercial Redesign White Paper

(Transportation & Environment Committee, December 3, 2007) Evaluates current performance and alternatives for improving the commercial recycling and solid waste system

Waste Characterization Study

(Transportation & Environment Committee, May 5, 2008) Characterizes City disposed waste from single-family residential and commercial generators.

Extended Producer Responsibility Work Plan

(Transportation & Environment Committee, October 6, 2008) Provides the work plan for implementing Extended Producer Responsibility (EPR) initiatives locally and in support of regional and statewide initiatives

Needs Assessment for the Integrated Waste Management Zero Waste Strategic Plan Development, November 2008, Appendix A

Compiles diversion and disposal data for single-family, multi-family, commercial, City facilities, construction and demolition debris, commercial hauler waste, and alternative daily cover. Provides projected quantities and characterization of disposed waste through 2040. Provides recommendations for program enhancements.