

**Council Meeting: December 9, 2008****SUBJECT: Zero Waste - Study Issue****REPORT IN BRIEF**

The purpose of this study issue is to determine whether Council wishes to pursue policies and programs that guide the City toward Zero Waste. Zero Waste is broadly defined as a philosophy and design principal that goes beyond recycling and takes a far-reaching systems approach to the flow of resources and waste through society. The focus of Zero Waste is to reduce excess consumption, minimize unnecessary waste, encourage recycling to the maximum extent possible and ensure products are designed to be reused, repaired or recycled.

In 1989 Assembly Bill 939 (AB 939) became law, requiring local governments to plan and implement programs to divert 50% of solid waste from landfills. Sunnyvale is currently diverting 63% of its waste and has exceeded the requirements of the law. The California Integrated Waste Management Board (CIWMB), the State agency designated to oversee AB 939, is now encouraging cities to adopt polices that support a Zero Waste philosophy. CIWMB has adopted Zero Waste as one of its seven strategic goals as a guiding principal for handling and managing the resources and waste stream in California.

If Council wishes to pursue Zero Waste as a goal for the City of Sunnyvale and move beyond the current level of diversion (63%), staff recommends that Council articulate this policy by adopting the Zero Waste Council Policy shown as Attachment A.

Staff would implement a Zero Waste Policy by first identifying policies and programs available to the City. This would involve compiling information on the City's existing waste-related policies and programs, including quantities, composition and market values for materials currently recycled and (with a consultant-led "waste characterization") the same characteristics for materials being landfilled. This information would be used to create a fact-based Zero Waste Plan to describe policies, programs and technologies that the City could use to implement the vision contained in the Zero Waste Policy. Once the waste characterization study and plan were completed, Council would have input on implementation of Zero Waste plans and programs through its roles in the budget and procurement processes.

BACKGROUND

The driving solid waste issue of the 1980s was a perceived landfill shortage issue best illustrated by the 1987 "garbage barge," which left Long Island, New York in search of a final disposal site. The floating barge was a lead story in the print and television media throughout the nation. National emphasis was focused on municipal solid waste management. These events spurred emphasis on reducing, reusing, and recycling materials in the waste stream and, in California, eventually lead to AB 939, which required municipalities to reduce the amount of waste going to landfills 25 percent by 1995 and 50 percent by 2000.

The result of AB 939 has been the multi-million dollar implementation of an infrastructure of collection programs, recycling facilities and materials recovery facilities in California that collects, sorts, processes, and transports recovered recyclables. Cities and counties developed and implemented Source Reduction and Recycling Elements (SRREs)--the planning documents that led to the development of programs by jurisdictions to meet the mandated 25 and 50 percent goals.

Sunnyvale was the first jurisdiction in California to adopt its SRRE. The City exceeded AB 939's (50% by 2000) waste diversion mandate years in advance. Sunnyvale's official diversion rate was first calculated as 19% in 1990 and is now 63%.

Through implementation of AB 939, California has achieved significant progress in waste diversion, program implementation, solid waste planning, and protection of public health. Most jurisdictions have met the mandated goals in California. According to the CIWMB, Californians diverted more than 50 million tons of solid waste away from landfills and into recycling, composting and transformation¹ programs in 2006, for an estimated statewide diversion rate of 54 percent. Diversion has increased ten-fold since the Integrated Waste Management Act was passed in 1989².

Due to California's diversion programs as well as others implemented nationwide, recycling has become a national habit. According to a report, *Wasting and Recycling in the U.S. 2000 (W2K)* by the Institute for Local Self Reliance (ILSR), in the last 15 years, national recycling rates have reached 28 percent which means the nation is close to recycling a third of all waste. Since 1990, local recycling programs have more than tripled from 2,700 to 9,300 across the country. Businesses have started recycling programs as well; some are recycling almost 90 percent of their waste³.

¹ "Transformation" is a term used in California law and regulation to refer to a number of "waste to energy" technologies, including incineration, pyrolysis, distillation and biological conversion other than composting. Transformation does not include composting, gasification, or biomass conversion.

² Disposal and Diversion Rate Statistics, www.CIWMB.CA.GOV/LGCentral/Rates/

³ *Wasting and Recycling in the U.S. 2000*, Institute for Local Self Reliance, March 2000

While this effort by communities is commendable, the amount of solid waste is increasing once again when viewed over the long term and economic cycles are factored out of the picture. For example, even though communities are recycling more, manufacturers are making and packaging increasing amounts of products with plastic that either lacks recycled content or is difficult to recycle. According to the W2K report, from 1990-1997, plastic packaging grew five times faster by weight than plastic recovered for recycling. When it comes to glass and aluminum, the story is similar. So even though well intentioned citizens are trying to recycle it all, it's getting harder and harder to keep up. Additionally, recycling alone will not end the nation's dependency on landfills and incinerators, nor reverse the rapid depletion of our natural resources. As world population and consumption continue to rise, it is clear that the one-way system of extracting virgin resources to make packaging and products that will later be buried or burned is not sustainable.

Another pressure that local governments are facing is addressing the issue of rising levels of greenhouse gases in the earth's atmosphere, which are causing changes in the global climate. Carbon dioxide (CO₂) emissions from vehicles and utilities have been identified as major culprits in climate change. However, the emerging story in the fight against global warming is the previously underestimated impact that methane gas has on global warming. Landfills are the largest source of methane gas emissions in the United States and methane is 72 times more potent than CO₂ over a 20-year period.⁴ This means that landfills emit the greenhouse gas equivalent of 20 percent of U.S. coal-fired power plant emissions every year. The closed Sunnyvale Landfill does not contribute significantly to this problem, as the City captures its methane and combines it with sewage treatment digester gas at the Power Generation Facility to make the electricity that powers the Water Pollution Control Plant.

Zero Waste has gained in popularity in California and around the country the past 5-10 years as a way to look beyond the goals of diversion programs put in place in the 1990's as well as address some of the climate change issues. The idea of Zero Waste is based on the concept that wasting resources is inefficient and "waste" should be redefined entirely. In the past, waste was considered a natural by-product of the culture. However, Zero Waste promotes not only reuse and recycling of all materials, but also, and more importantly, promotes waste prevention.

⁴ *Stop Trashing the Climate*, Institute for Local Self Reliance, June 2008

The current linear way of managing waste is illustrated below:



The current waste management system is to extract materials from the earth's crust, transport them to manufacturing sites where products are produced (materials not part of end product are discarded as waste), transport products to users, and finally, at the end-of-life, discard them as waste. These products often contain persistent or toxic materials that negatively impact the environment when they are incinerated or disposed of in landfills.

The new Zero Waste closed loop resource management system⁵:



⁵ Copyright Eco-Cycle graphics, 2004 by permission

In contrast to the current one-way, linear production/disposal system, the Zero Waste approach to handling production is cyclical, as in nature, where there is no waste as a by-product and all materials stay in the production cycle.

Some of the main ideas behind Zero Waste are:

- *Shifting subsidies*—end tax payer subsidies for wasteful and polluting industries and industries that make products from virgin materials. Zero Waste proposes ending federal subsidies to enable recycling and reuse products to compete equitably and leave it up to the market to determine which products are truly less expensive.
- *Design for the Environment*—redesign of products and packaging for durability, reuse, repair and recyclability. Products would be designed using fewer material types that could easily be repaired or reused when they have outlived their useful life.
- *Clean Production*—provide incentives for clean production methods and award efforts to protect workers and the environment.
- *Distribution*—distribution centers work with manufacturers to reuse packaging such as pallets and crates and to reduce unnecessary packaging. Retailers convey consumer habits and preferences upstream to the manufacturers where consumer pressures can lead to better design.
- *Empowered Consumer*—consumers use their buying power to demand non-toxic, easily reused, recycled, or composted products and choose materials that are minimally packaged and less toxic. This rewards manufacturers who take responsibility for their products and packaging, and provides a financial incentive for other companies to follow suit
- *Producer Responsibility*—a manufacturer's responsibility for a product extends beyond the time of sale and relieves consumers and local governments of the costs of disposal.
- *Resource Recovery Centers*—invest in infrastructure--use the tax base to invest in recycling, composting, and reuse facilities, not landfills.
- *Jobs from Discards*—create jobs from discarded waste. Any recycling measures communities take mean more jobs, more business expenditures on supplies and service, and more money circulating in the local economy.
- *Changing the Rules*—put into place policies and practices that favor environmentally and economically sustainable practices over wasteful, polluting, and ultimately costly practices. Such policies would include creating financial incentives for businesses and

residents to recycle more and create less waste (e.g., the Pay-As-You-Throw garbage rate philosophy, as in Sunnyvale’s new ChoiceCollect program) banning toxic products from landfills and prohibiting the sale of toxic or polluting products.

Other countries around the world (communities in Australia and New Zealand), nationally (Seattle, Washington and Boulder, Colorado) as well as the State of California and local jurisdictions (Palo Alto, Oakland, San Francisco, San Jose) have begun to evaluate and redesign their current systems to encourage resource recovery and to create a more materials-efficient economy. Other communities in California have adopted goals beyond 50 percent diversion, including Alameda County and the City of Los Angeles (75 percent).

EXISTING POLICY

The existing policies that address the reduction of waste and resource use and emissions reductions that are relevant to a Zero Waste discussion are as follows:

- Solid Waste Sub-Element
 - The Solid Waste Sub-Element (SWSE), a planning document approved by the CIWMB pursuant to AB 939, established a policy framework for solid waste management in all municipalities. Some of the Sunnyvale goals described in Section 3.2 of its SWSE include:
 - Reducing solid waste disposal to 50%⁶ or less of the amount generated in 1990 in the most cost-effective manner
 - Providing source reduction programs and promoting source reduction behavior
 - Providing and promoting recycling programs and encouraging private sector recycling and
 - Increasing demand for recycled materials through legislative advocacy.
- City of Sunnyvale Environmental Procurement Policy (EPP)
 - Adopted in 1991, the policy says that the City will purchase “environmentally preferable products and services” with the goals being “the preservation of natural resources, reduction of energy use and pollution, reduction of solid waste and minimization of impact on the environment from City activities...”
 -

⁶ SB 1016, signed into law by the Governor in 2008, replaces the “percent diversion” measurement system with a “per capita disposal” measurement for evaluating jurisdiction compliance with the state requirement. SB 1016 builds on AB 939 compliance requirements by implementing a simplified and timelier measure of jurisdictions’ performance by shifting year-to-year calculations to a disposal-based number as reported by disposal facilities (landfills, in most cases). SB 1016 does not change the AB 939 50% requirement, but eventually a jurisdiction’s diversion rate will be converted to the equivalent per capita disposal rate.

- Sustainable Development and Green Building Policy
 - Adopted in 2004, this policy includes the requirement that, prior to the planning or design of any new City facility over 10,000 square feet, LEED certification (which encompasses a variety of environmental attributes) will be considered.
- CO₂ Emissions Policy and Goals
 - Adopted in 2007, this policy sets a goal of reducing CO₂ emissions from City operations by 20% from 1990 levels by 2010 and endorses the U.S. Mayors Climate Protection Agreement.

These policies call for the use of environmental procurement, sustainable development, CO₂ emissions reductions, source reduction, and reuse and recycling tools to reduce the City's impact on the environment and could be incorporated into an overarching policy framework that sets a philosophical goal of getting as close to Zero Waste as possible.

DISCUSSION

Community Feedback Regarding Zero Waste

To gain feedback from the community on policy and program options related to Zero Waste, staff held a community discussion on April 30, 2008. After staff defined and discussed key elements of Zero Waste and discussed existing programs and policies that support Zero Waste, a facilitator led a brainstorming exercise on possible policy and program options related to Zero Waste. The group brainstormed both policy and program options they thought the City should consider, then the options were prioritized by order of interest. In the policy area, the group came up with 14 items and for the program area there were 22 items (Attachment B). The top five items for each area are as follows:

- Policy items
 - A rate setting policy similar to PG&E's to encourage commercial waste reduction
 - Adopt a 90 percent diversion rate
 - Partner with businesses on product take-back programs
 - Provide education to schools
 - Support and provide incentives for manufacturing of zero waste product designs
- Program items
 - Offer yard waste recycling service to apartments and businesses
 - Provide residential mixed paper service (implemented September 15 as part of the new ChoiceCollect Program)
 - Add multiple recycling centers throughout City
 - Promote and showcase zero waste products
 - Provide businesses incentives to implement recycling programs

Staff encouraged attendees to provide additional input via a survey provided on the Zero Waste webpage at www.sunnyvalerecycles.org. The most popular results from the 20 respondents of the survey were very similar to the items the first community meeting participants brainstormed. Staff also held a second community meeting on November 13 to share the Zero Waste policy and recommendations to Council.

A Fact Based Approach to Zero Waste

Depending on the level of interest in implementing Zero Waste policies and programs by the community and Council, the options could range from the lower cost expansion and restructuring of existing programs to reduce waste, to costly capital expenditures for “conversion” technologies to process waste. After listening to community comments, conducting research into existing Zero Waste programs in nearby communities and considering the many Zero Waste options the City could consider adopting, staff believes that any Zero Waste policy or program should take a fact based approach to waste reduction. In other words, to determine what programs and policies should be implemented to move beyond the current 63% diversion rate, a study of the current waste stream in Sunnyvale is needed in order to:

- Obtain comprehensive data specific to Sunnyvale’s waste streams- (e.g., in what sector is most of the waste being generated and what are the largest categories of materials being generated)
- Determine what materials are currently being diverted (i.e., what material is being recycled, reused or reduced already)
- What is left in the waste stream (i.e., what material (residue) is left over after it has been recycled and sorted at the Sunnyvale Materials Recovery and Transfer Station (SMaRT) Station and is destined for the landfill)
- Identify key opportunities for diversion, recovery, or reuse of specific types of material categories

The method used to study the contents of a waste stream is called a “waste characterization.” Waste characterization data is collected by taking samples of waste and sorting it into material types like newspaper and aluminum cans, and weighing each type. Typically, samples are taken from trucks delivering waste to landfills and transfer stations from residential, commercial, and self-haul sources. In some cases, samples are taken from individual businesses to develop waste composition data for specific types of businesses (often called a generator-based study).

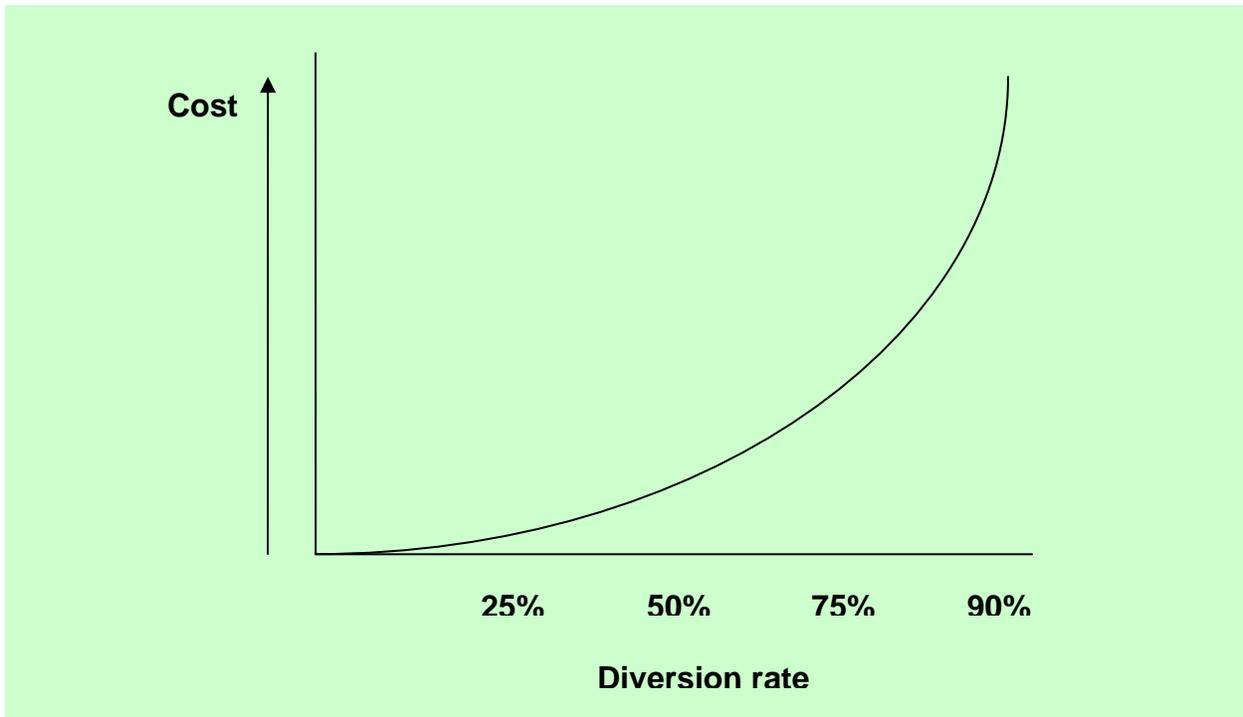
A full characterization of all waste generated in Sunnyvale was last performed in 1990. A characterization of garbage disposed at the SMaRT Station® was conducted in 1995 for Sunnyvale, Palo Alto and Mountain View, the three cities delivering waste to that facility. The 1995 study was conducted as part of the City’s administration of the initial SMaRT operating contract. These results are now out of date due to the recycling and waste reduction measures the City has taken since the studies were conducted.

In 2006, Palo Alto conducted a waste composition study as a first step in its Zero Waste planning. The results of the study focused on Palo Alto's waste streams. It did also look at the combined residuals of the three cities using the SMaRT Station but did not examine the waste generated and disposed in Sunnyvale as did the 1990 and 1995 studies, respectively. While Palo Alto's residual data can be used to get a big picture of the current waste trends, it will become less accurate over time because waste streams constantly change (e.g., plastic containers continue to replace glass in the marketplace and less newspaper is being generated as daily newspaper circulation falls and content shrinks).

The Palo Alto study looked at the output of the old materials recovery system at the SMaRT Station. That system is now being replaced with new, more effective technology, meaning that SMaRT Station residues will be smaller in quantity and have different characteristics than in 2006. Thus, a new study will show specific waste stream data that will be different from just two years ago.

Staff believes a Sunnyvale specific waste characterization study would be required in order to identify the most practical and cost-effective ways to expand recycling and diversion programs. The waste characterization study would be combined with the development of a long-term Zero Waste strategic plan that would recommend a policy direction and provide guidance for City officials in the planning and decision making process to achieve Zero Waste goals. If Council adopts the Council Policy on Zero Waste, staff will present funding for a waste characterization study and Zero Waste strategic plan as a high priority project in the proposed FY 2009/10 budget.

Diversion Rates vs. Costs



It should be noted that the cost to divert an additional unit of waste (ton, pound, etc.) increases as the diversion rate increases. At the lowest levels, diversion is a profitable endeavor due to the relative ease of removing high value recyclables from the waste stream, as with source separated metals and paper from industrial sources.

To increase the diversion rate significantly above the current 63% rate will require more aggressive and costly initiatives. Depending on the methods used to increase diversion, net costs will generally be born either by:

- City refuse collection ratepayers/waste generators (for City-provided service programs), or
- Producers and consumers (for mandated changes to product content, take-back mandates, etc.)

Moving to mandatory recycling programs, collecting food discards, and product bans require additional staff and equipment to implement programs. Emerging technologies such as anaerobic digestion and hydrolysis could help the City reach the higher diversion rates, but the cost to site and build this type of facility are in the tens of millions of dollars. The economies of scale for technology-based diversion points toward partnerships with other local jurisdictions to build shared facilities and thus minimize unit costs.

Savings from reduced disposal quantities and reduced waste toxicity as a result of implementing Zero Waste policies would generally benefit refuse collection rate payers.

What Would A Strategic Plan Provide?

The strategic plan would be based on data gathered from the waste characterization study and take into consideration the feedback from the community discussions. Depending on the findings of the waste characterization the strategic plan could recommend additional diversion programs, changes to existing programs and/or deletion of programs where more effective alternative diversion methods were identified. Examples of possible Zero Waste strategies include:

- Waste Reduction:
 - Encourage manufacturers to redesign products so they can be repaired and recycled
 - Add a 20 gallon “mini-can” garbage cart option to encourage further recycling and waste reduction.
 - Take-back programs that require retailers, manufacturers and/or others who profit from selling difficult to recycle products to take back these products for recycling (e.g., computers, televisions, packaging materials, plastic toys)
- Reuse of Materials and Products:
 - Implement reuse opportunities at the SMaRT Station or other location(s) (i.e. Goodwill drop-off, building materials reuse and recovery area)
 - Implement policies requiring building material reuse/recycling or deconstruction for contractors/homeowners
- Expand recycling and composting services to recover materials for highest and best use:
 - Mandate residential and/or business participation in existing, new or modified recycling collection programs
 - Mandate residential and/or business participation in existing, new or modified composting programs
 - Search for/subsidize markets for additional materials that could be accepted at the SMaRT Station Recycling Drop-off Center (e.g., additional plastics, paper milk and juice cartons)
 - Mandate that City-permitted events be Zero Waste events (require vendors to supply compostable food containers and set up recycling and composting stations)
- Advocate for Zero Waste Policies and Regulations:
 - Lobby regional, state and federal legislators to implement laws, policies and regulations that promote Zero Waste

- Work Locally and Regionally to Assist in Zero Waste Planning:
 - Initiate a Zero Waste Task Force made up of community members to develop and discuss zero waste options for Sunnyvale and the region
 - Join regional Zero Waste groups to share ideas and information
 - Pursue developing and expanding cooperative regional approaches and joint diversion facilities that would reduce waste and increase diversion of mixed “residuals” (unrecycled residues left over from the SMaRT Station materials recovery process)
- Lead by Example:
 - Implement Zero Waste in all City buildings with target reduction goals
 - Develop measurable Zero Waste goals in job descriptions, management performance measures and annual performance evaluations
- Adopt policies and incentives to help achieve Zero Waste in Sunnyvale:
 - Adopt new diversion rate goal of 63% (current diversion rate) or higher
 - Consider steeper tiers for garbage rates, i.e. structure the existing rates so that they provide a larger price gap between container sizes so as to discourage generation of waste
 - Adopt and implement additional/more stringent green procurement guidelines

FISCAL IMPACT

There is no fiscal impact from adoption of a Council Policy for Zero Waste. Implementing steps to achieve the policy goals will have fiscal impacts that could range from modest cost savings and revenues for some steps to substantial cost increases for other implementation steps. The fiscal impact of significant implementation items will be described when those purchases, procurements, etc. are presented for Council consideration.

PUBLIC CONTACT

Public contact was made by posting the Council agenda on the City's official-notice bulletin board outside City Hall, in the Council Chambers lobby, in the Office of the City Clerk, at the Library, Senior Center, Community Center and Department of Public Safety; posting the agenda and report on the City's Web site; and making the report available at the Library and the Office of the City Clerk.

Public contact was also provided by the April 30, 2008 public meeting described in Discussion, above, the public meeting held November 13, 2008 and the Study Session held November 18, 2008.

ALTERNATIVES

1. Adopt the Zero Waste Council Policy shown as Attachment A
2. Adopt a Zero Waste Council Policy at a later date, after a waste characterization is conducted and a Zero Waste strategic plan is developed
3. Do not adopt a Zero Waste Council Policy
4. Other action as directed by Council

RECOMMENDATION

In order to provide staff with policy guidance on the City's goals with regard to Zero Waste, staff recommends that Council adopt the Zero Waste Council Policy shown as Attachment A.

Reviewed by:

Marvin Rose, Director, Public Works Department
Prepared by: Karen Gissibl, Casual Manager

Approved by:

Gary M. Luebbbers
City Manager

Attachments

- A. Zero Waste Council Policy
- B. Summary from the Community Outreach Meeting
- C. Zero Waste Study Issue

ATTACHMENT A

ZERO WASTE POLICY

POLICY PURPOSE:

The City of Sunnyvale understands that the placement of materials in waste disposal facilities such as landfills, causes damage to human health, wastes natural resources, and transfers liabilities to future generations. The purpose of this Zero Waste Policy is to:

- Protect the environment and conserve natural resources
- Help prevent pollutants from entering the air, land, and water
- Create a more efficient economy
- Preserve the environment for future generations

POLICY STATEMENT

It is the policy of the City of Sunnyvale that the City will work to:

1. Reduce the amount of Sunnyvale waste being disposed
2. Work to encourage or if necessary require residents, businesses and agencies to use, reduce, and recycle materials
3. Empower consumers to use their buying power to demand non-toxic, easily reused, recycled or composted products
4. Encourage manufacturers to produce and market less toxic and more durable, repairable, reuseable, recycled and recyclable products
5. Lobby regional, state and federal legislators to implement laws, policies and regulations that promote Zero Waste
6. Work locally and regionally to assist in Zero Waste planning
7. Lead by example and implement Zero Waste goals for all City buildings
8. Put policies in place that favor environmental and economically sustainable practices
9. Provide the community information about Zero Waste that includes periodic reports that measure progress toward quantifiable Zero Waste goals

ATTACHMENT B

Notes from Community Discussion on Zero Waste April 30, 2008

7:00 – 7:20 p.m.: Introduction

City staff presented a PowerPoint (posted on the City's Zero Waste webpage at www.sunnyvalerecycles.org) and answered community members' questions about Sunnyvale's programs and its waste stream.

A policy was defined as an agreed upon goal intended to guide decisions and actions toward a desired future state (e.g. 75% city-wide diversion rate by 2015). A program is the actions and steps taken to move one towards policy goals (e.g. implement a commercial paper recycling service). It was acknowledged that some of the brainstorm ideas might be hard to categorize as one or the other but that we would simply do our best.

7:20 – 8:20 p.m.: Group Brainstorm and Prioritization Session

Attendees participated in a "round-robin" group brainstorm on zero waste related policies and programs that they would like the City to consider. Then, each attendee voted to prioritize the brainstorm ideas. The results of this process are below.

Policy Brainstorm

Listed in Order of Priority (parenthesis indicates the total votes received)

1. Rate setting policy similar to PG&E's (tiered and based on the baseline) to encourage commercial waste reduction (12)
2. Adopt a 90% diversion rate (12)
3. Partner with businesses on product take-back/recycling (11)
4. Provide education to schools (11)
5. Support and incentivize manufacturing of zero waste product designs (10)
6. Adopt a green building policy that includes and incentivizes the use of recyclable/reusable building products (9)
7. Lobby state/federal government for zero waste (9)
8. Mandate natural lighting in buildings (7)
9. Promote/ encourage businesses to educate employees (7)
10. Mandatory paper and cans/bottles recycling at schools (7)
11. Track and measure waste per capita (6)
12. Maintain existing programs if new ones are adopted (5)
13. Ban clear plastic packaging (2)
14. Encourage simple living through education (2)

Program Brainstorm

Listed in Order of Priority (parenthesis indicates the total votes received)

1. Offer yard waste recycling service to apartments and businesses (10)
2. Residential mixed paper recycling service (8)
3. Add multiple recycling centers throughout city (8)
4. Promote zero waste products (showcase) (8)
5. Provide businesses incentives to give recycling to employees (8)
6. City use of Bay Area conversion technology to generate energy from waste (8)

7. Commercial food waste/organics composting service (7)
8. Publicize impact of waste and recognize local waste diversion (7)
9. Reduce business license fees for green businesses (7)
10. Add food waste as an accepted material in curbside yard waste recycling (5)
11. Allow residents to pick up reusable items at the SMaRT Station (5)
12. Ban/ charge for disposables (e.g. plastic bags, disposable cups) (5)
13. Work with local manufacturers to reduce packaging (4)
14. Host an artists' recycling/reuse showcase (3)
15. Recognize and publicize zero waste actions by local businesses (3)
16. Commercial mixed paper recycling service (2)
17. Give monetary incentives to residents for recycling (2)
18. Partner for a state-wide marketing campaign (2)
19. School onsite composting (2)
20. Seek partnerships with businesses (1)
21. Additional acceptable materials at the SMaRT Station (0)
22. Recycle e-waste (0)

8:20 – 8:30 p.m.: Closing

Attendees were encouraged to provide any additional input via the survey on the Zero Waste webpage at www.sunnyvalerecycles.org. An additional community discussion will likely occur in August/September – time and place to be determined (based on survey input).

If you would like to be added to the Zero Waste Study Issue Email List for updates on this issue, please email kgissibl@ci.sunnyvale.ca.us.

Proposed New Council Study Issue

Number	DPW 06
Status	Pending
Calendar Year	2008
New or Previous	Previous
Title	Zero Waste Policy
Lead Department	Public Works
Element or SubElement	3.2 Solid Waste

1. What are the key elements of the issue? What precipitated it?

Zero waste is a philosophy and a design principle that goes beyond recycling to take a far-reaching "systems approach" to the flow of resources and waste through society. It focuses on designing and managing products and processes to reduce the volume and toxicity of waste and materials produced and to conserve and recover all resources.

Key elements of zero waste include:

- knowing your waste and designing it out (by returning resources to nature or to the economic mainstream)
- adopting a zero waste goal and planning for it
- holding producers responsible
- ending subsidies for wasting
- building infrastructure beyond recycling
- creating jobs and sustainable communities

AB 939 (the California Integrated Waste Management Act), which became law in 1989, required local governments to plan and implement programs and policies designed to divert 50% of solid waste from disposal. Sunnyvale was the first city in the state to adopt its AB 939 plan and one of the first large cities to reach 50% diversion. The City now diverts 63% of its waste from the landfill using source reduction (e.g. home composting), City-provided source separation collection programs, private recycling collection services and separation of recyclables from the garbage received at the SMaRT Station.

Sixteen years after AB 939's passage, communities that have achieved the 50% level have begun to ask "What comes next—Is recycling enough?" Over the last decade, zero waste resolutions and policies have become increasingly considered and adopted internationally (communities in Australia and New Zealand), nationally (Seattle), as well as by the State of California and local jurisdictions (Del Norte County, Santa Cruz County, San Luis Obispo County, San Francisco, and Palo Alto). Other communities in California have adopted goals beyond 50 percent diversion, including Alameda County (75 percent) and the City of Los Angeles (75 percent). These developments, along with continuing interest in increasing the efficiency of City operations (by eliminating, rather than managing

waste), in growing our local economy, in decreasing reliance on City programs to handle "waste" and conserving natural resources leads to considering a goal of zero waste.

If approved by Council for study, the outcome of this study issue would be a document that more completely describes Zero Waste and how the Zero Waste philosophy relates to the City's current programs and policies, and provides Zero Waste policy options for Council consideration. The options presented would depend on the findings of the study, but examples of possible policy options include:

- Raising the City's "50% or more" diversion goal to a higher level
- Expanding the scope of the existing Environmental Procurement Policy
- Increasing waste reduction outreach to the residential, business and institutional communities
- Targeting specific waste types and/or customer groups for special attention
- More forceful advocacy on regional, state, and federal legislation and policies relevant to waste reduction, producer responsibility, recycling, reuse, etc.

Last year, Council agreed with a staff recommendation that this item be deferred due to workload issues.

2. How does this relate to the General Plan or existing City Policy?

Goal 3.2B and related policies in the Solid Waste Sub-element would fall under the umbrella of a Zero Waste Policy.

Goal 3.2B--Reduce solid waste disposal to 50% or less of the amount generated in 1990 (as adjusted to reflect population and economic changes) in the most cost-effective manner

Policy 3.2B.1--Reduce generation of solid waste by providing source reduction programs and promoting source reduction behavior

Policy 3.2B.2--Maximize diversion of solid waste from disposal by use of demand management techniques, providing and promoting recycling programs and encouraging private sector recycling

Policy 3.2B.4--Increase demand for recycled materials by advocating local, state and federal legislation that will increase use of recycled content products

These policies call for the use of demand management, environmental procurement, source reduction, reuse and recycling tools to reduce solid waste disposal to 50% or less of the amount generated within the City. A Zero Waste Policy would set these tools inside an overarching policy framework that sets a philosophical goal of completely eliminating disposal of solid wastes.

3. Origin of issue

Council Member(s)
General Plan
City Staff X
Public
Board or Commission none

4. Multiple Year Project? No Planned Completion Year 2008

5. Expected participation involved in the study issue process?

Does Council need to approve a work plan? No
 Does this issue require review by a Board/Commission? No
 If so, which?
 Is a Council Study Session anticipated? Yes
 What is the public participation process?
 A community meeting or meetings will be held to present and discuss the draft Study and receive comments and suggestions from the public.

6. Cost of Study

Operating Budget Program covering costs
 323, Solid Waste Management
 Project Budget covering costs
 Budget modification \$ amount needed for study
 none
 Explain below what the additional funding will be used for

7. Potential fiscal impact to implement recommendations in the Study approved by Council

Capital expenditure range \$501K or more
 Operating expenditure range \$501K or more
 New revenues/savings range \$51K - \$100K
 Explain impact briefly
 Significant operating and/or capital costs could result, depending on the findings of the proposed study and the City Council's response to its recommendations. Costs could relate to the development and construction of new waste reuse and recycling equipment or facilities and/or the implementation of new outreach/promotion/education programs and new recycling collection programs. To the extent additional materials were diverted from landfill, costs would be somewhat offset by reduced landfill disposal costs.

8. Staff Recommendation

Staff Recommendation For Study
If 'For Study' or 'Against Study', explain

Developing a Zero Waste policy would provide the City with a planning framework within which to respond to future state mandates or community desires that call for reducing the amount of solid waste generated in and disposed by the City.

Last year, Council agreed with a staff recommendation that this item be deferred due to workload issues.

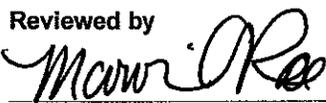
9. Estimated consultant hours for completion of the study issue

Managers	Role	Manager	Hours
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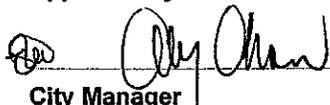
Lead	Bowers, Mark	Mgr CY1:	200	Mgr CY2:	0
		Staff CY1:	300	Staff CY2:	0
Interdep	Boco, Robert	Mgr CY1:	10	Mgr CY2:	0
		Staff CY1:	0	Staff CY2:	0

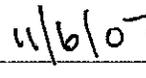
Total Hours CY1: 510
Total Hours CY2: 0

Note: If staff's recommendation is 'For Study' or 'Against Study', the Director should note the relative importance of this Study to other major projects that the Department is currently working on or that are soon to begin, and the impact on existing services/priorities.

Reviewed by

Department Director


Date

Approved by

City Manager


Date

Addendum

A. Board / Commission Recommendation

Issue Created Too Late for B/C Ranking

Board or Commission	Rank Rank 1 year ago	Rank Rank 2 years ago
Arts Commission		
Bicycle and Pedestrian Advisory Committee		
Board of Building Code Appeals		
Board of Library Trustees		
Child Care Advisory Board		
Heritage Preservation Commission		
Housing and Human Services Commission		
Parks and Recreation Commission		
Personnel Board		
Planning Commission		
Board or Commission ranking comments		

B. Council

Council Rank (no rank yet)
Work Plan Review Date (blank)
Study Session Date (blank)
RTC Date (blank)
Actual Complete Date (blank)
Staff Contact