TO: HONORABLE CITY COUNCIL
FROM: CITY MANAGER
DEPARTMENT: PUBLIC WORKS
DATE: OCTOBER 17, 2005
CMR: 382:05

SUBJECT: ADOPTION OF ZERO WASTE RESOLUTION, APPROVAL OF THE ZERO WASTE STRATEGIC PLAN AND DIRECTION TO PREPARE ZERO WASTE OPERATIONAL PLAN

RECOMMENDATION
Staff requests that Council:

1) Adopt a Resolution of the City of Palo Alto Setting Waste Reduction and Zero Waste Goals and Approving the Zero Waste Strategic Plan (Attachment A);

2) Approving the zero waste strategic plan (ZWSP) (Attachment B) to provide City staff with guidance in the planning and decision-making process to achieve the City’s zero waste goal; and

3) Directing staff to develop a Zero Waste Operational Plan describing action plans, programs and measures that can be implemented to achieve the Zero Waste goal.

BACKGROUND
In 2003, the California Integrated Waste Management Board estimated that the City of Palo Alto generated 166,548 tons of waste annually. Of this total 71,379 tons of waste was disposed of in 21 different landfills within the State of California. The materials being landfilled once were valued natural resources that were being placed back into the earth, to never have a purpose again. Landfills produce liquids and gases from these disposed materials that must be managed on a long-term basis for the safety of the community.

On November 15, 2004, during the discussion of the then-proposed Environmental Services Center project, Council directed staff to return to Council with a proposed policy for zero waste, including an implementation plan. Refer to Attachment C, CMR:470:04 and Council minutes of November 15, 2004.

The Zero Waste International Alliance broadly defines zero waste as:

“A philosophy and visionary goal that emulates natural cycles, where all outputs are simply an input for another process. It means designing and managing materials and products to conserve and recover all resources and not destroy or bury them, and eliminate discharges to land, water or air that do not contribute productively to natural systems or the economy.”
Zero waste is a goal that is both pragmatic and visionary. Setting the goal of zero waste is the understanding that there will still remain the necessity to landfill some materials for the protection to the community. Zero waste means setting the goal of diverting from landfill at least 90 percent of the waste generated by all sources, both business and residential. Zero waste is meant to reduce excess consumption, minimize unnecessary waste, encourage recycling to the maximum extent possible and ensure that products are made to be reused, repaired or recycled back into nature or the marketplace. Zero waste seeks to eliminate waste wherever possible.

**DISCUSSION**

There is no specific formula for getting to zero waste since each jurisdiction has its own demographic, economic and solid waste characteristics. The first step was to create a ZWSP that would act as a framework to guide City officials in the planning and decision making process towards achieving zero waste goals. The purpose of creating the ZWSP was to ensure that the proposed zero waste goals are viable options.

The objectives in the development of the ZWSP were to:

- Reduce volume and toxicity of waste;
- Reuse materials and products;
- Expand recycling and composting services for all sectors and materials and recover materials for their highest and best use;
- Guide City officials in the development of the Operational Plan;
- Aid in the development of policies and incentives to help achieve zero waste in Palo Alto.

In January 2005, a task force of residents and businesses was formed (Attachment D) to assist in the creation of a zero waste policy and the development of a ZWSP for Palo Alto. Bud Mission, of Roche BioScience, and Palo Alto resident Walt Hays co-chaired the task force. The City hired Gary Liss and Associates (GLA), to introduce the concept of zero waste to the task force and to discuss the philosophy and current efforts to achieve zero waste in California. GLA is recognized as a world-renowned authority in creating zero waste plans for communities across the United States.

GLA was directed to work with the task force to create the ZWSP. The task force met eight times between January and July 2005, and meetings were open to the public. The ZWSP includes input from a cross-section of the community. A Zero Waste web site (www.cityofpaloalto.org/zerowaste) and email address (zerowaste@cityofpaloalto.org) was established to provide the community with information on the progress of the efforts to develop the ZWSP. Public input to the ZWSP came in the form of public meetings with residents and businesses, and through the development of residential and business surveys. Additionally, reuse, recycling and composting service providers were surveyed. Surveys were available online and sent to at least 1,000 businesses in Palo Alto and over 400 reuse, recycling and composting service providers throughout the Bay Area. Outreach to the community, requesting its response to the surveys, was conducted via a residential utility bill insert, newspaper advertising, outreach at community events, business district and Palo Alto Chamber meetings, hand delivery of surveys to businesses, Community Recycler newsletter, flyers (local libraries, May Fete parade, and the City landfill), and the Recycling Center kiosk.
As a result of input from the task force, business and residential communities and City staff, the following objectives and strategies were developed for the ZWSP to provide a framework to guide City staff and officials in the development of action plans, programs and measures that can be implemented to achieve zero waste goals. The following will be considered in the development of the Zero Waste Operational Plan:

Objective 1: Reduce – Work with Residents and Businesses to Eliminate Waste
   Strategy 1: Expand City educational and technical assistance programs.
      1. Encourage residents and businesses to eliminate waste as a priority, on a voluntary basis.
      2. Provide technical assistance to local businesses to adopt sustainable best business practices to minimize waste and avoid landfill and incineration (e.g., more waste audits, how-to guides, and periodic advice on how to implement recommendations of waste audits).
      3. Promote and incentivize Palo Alto businesses to create and market products and services that utilize processes and means that reduce the volume and toxicity of waste and materials.
   Strategy 2: Promote voluntary take-backs.
      1. Encourage retailers and their suppliers to take-back products and packaging that are currently difficult to reuse, recycle or compost in Palo Alto.
      2. Publicize take-back programs by posting all cooperating retailers on City’s Zero Waste website and regularly include articles and/or ads about this program in area newsletters and newspapers.

Objective 2: Reuse – Develop Infrastructure Beyond Recycling
   Strategy 1: Expand opportunities for reuse of used materials and products.
      1. Develop and communicate to residents and businesses a list of the highest priority materials to be reused, such as used building materials, used plastic toys, textiles and leather, and arrange for each of these materials to be accepted in at least one drop-off location each.
      2. Work with local reuse nonprofits and businesses to expand convenient drop off locations within the City.
   Strategy 2: Work to preserve residential buildings that are still functional: Encourage adaptive reuse as a priority in City building standards for residential construction.

Objective 3: Offer Recycling and Composting Services to All.
   Strategy 1: Expand recycling services.
      1. Develop and communicate to the public a list of the highest priority materials currently disposed to be added to recycling programs (e.g., film plastics) and composting programs (e.g., food waste and food contaminated paper). Include each of these materials in at least one drop-off location.
      2. Maintain one or more recycling drop-off centers within the City limits once the City’s landfill closes in 2011, not on City parklands unless consistent with the Baylands Master Plan.
      3. Support other regional recycling centers used by Palo Alto residents and businesses to help them expand and provide additional services needed.
      4. Work with independent recyclers to help the community reduce their waste.
Strategy 2: Expand composting services.
   1. Develop composting collection program for discarded food and food-
      contaminated paper as the highest next priority for new services in Palo Alto for
      both the residential and commercial sectors.
   2. Help Palo Alto Unified School District and interested businesses to start food
      waste composting pilot program.

Objective 4: Incentives and System Design

Strategy 1: Renegotiate contracts: Negotiate with Waste Management, Inc. and the
SMaRT station cities to significantly reduce or eliminate the financial
obligations in the current service contracts that pose a barrier to waste
reduction.

Strategy 2: Establish rate-based incentives and disincentives to reduce landfilling.
   1. Seek ways to incentivize businesses to adopt zero waste goals and to develop zero
      waste plans. Consider granting any business that measurably exceeds the interim
      2011 zero waste goal before 2011 favorable refuse rate status (discounts) beyond
      those established in the normal rate structure. The size of the rate discount should
      be tied to both volume and percentage reduction of designated materials and
      target criteria.
   2. An example of a possible progression from rate incentives to mandates is as
      follows:
      a. Stage 1 – In the first stage of this plan, create a progressive multi-stage rate
         structure tied to measurable material reduction goals to ensure that both
         residents and businesses that waste less, pay less. Communicate the rollout
         of the program to the public of material reduction targets at least three
         months in advance of stage two implementation.
      b. Stage 2 – Implement first stage rate structure incentives, targeted at high
         priority waste materials to be reduced. Put into place an effective and
         credible monitoring procedure and system to assess progress toward
         operational goals and provide a progress report both at mid-year (6 months)
         and at year-end on the City’s zero waste website. Evaluate mid-year
         progress and move to stage two rate structures if insufficient progress has
         been achieved.
      c. Stage 3 – Beginning in stage three, if progress meets operational reduction
         targets, maintain rate structures. If not, advance to higher rate structures for
         another six-month trial, reporting back twice each year until stage 4.
      d. Stage 4 – If, by the end of stage 3, designated materials have not been
         decreased by more than 50% from 2005 levels following implementation of
         progressive rate structure and periodic reporting, consider adopting bans or
         mandates with fines to require proper handling of those materials which
         have not been successfully reduced.
   3. Develop and communicate to residents and businesses a list of the highest priority
      materials currently disposed to eliminate from the waste stream in addition to
      materials already being reduced or recovered. Suggest viable alternatives to those
      materials and products and where to get them. Provide information and assistance
      as needed for implementation.
Strategy 3: Adopt business investment policies to expand services.
1. Encourage the cost effective development and expansion of services to reduce, reuse, then recycle and compost for all materials in Palo Alto. Establish minimum qualifications for service vendors to provide such services as appropriate to ensure public health and safety. Establish mandatory service vendor reporting requirements to accurately capture quantities and weights of diverted materials.
2. Implement policies that penalize the discharge of toxic materials into the environment.
3. Increase public and private collection and processing services on an open, competitive basis, and help develop new businesses that add value to materials recovered and minimize residues that require disposal.
4. Encourage innovative services to be added by the private sector and nonprofit groups so the City does not have to invest in those activities. Encourage different types of services to be provided for different types of businesses.
5. Develop new requirements for owners and managers of multi-family dwellings and multi-tenant commercial buildings that ensure that all tenants have reasonable access to services and premises-based facilities comparable to single family dwellings and small businesses.
6. Utilize City Economic Development staff to encourage expansion of services related to reduce, reuse, recycle, and compost.
7. Establish target for the full avoided disposal costs to be basis for evaluating economics of zero waste programs and policies.

Strategy 4: Educate and engage the community to support zero waste initiatives.
1. Continue to develop and implement a public education and communications program concurrent with the design of new waste diversion programs. Develop new zero waste promotional materials. Promote positive zero waste buying power and behavior with promotional materials. Promote positive zero waste models on City’s website and link to other examples.
2. Continue to implement new education and outreach in advance of the implementation of any new programs to obtain the maximum support for new initiatives that will help the City achieve zero waste goal.
3. Coordinate outreach programs for sustainability and pollution prevention with zero waste, waste prevention and recycling programs.
4. Implement community-based social marketing programs to more actively engage residents and businesses.
5. Work with industry groups to promote Sustainable Business and Green Business programs.
6. Recognize business and residential zero waste leaders. For example, the City should sponsor a “Zero Waste Leadership Awards” program to recognize businesses that:
   a. Are models of one or more zero waste business principles;
   b. Show significant measured progress in moving toward zero waste; or
   c. Exceed the City interim targeted 2011 diversion goal.

Strategy 5: Develop resource recovery park. Develop or help cause to be developed a resource recovery parks within Palo Alto City limits or nearby (but not on City parklands) to provide location(s) for expansion of reuse, recycling and composting businesses.
Objective 5: Lead by Example and Advocate Zero Waste:

Strategy 1: Maintain a public advisory review body for zero waste policy. Continue a Zero Waste Task Force or other advisory body made up of community representatives to serve for limited duration to review the staff prepared Zero Waste Operations Plan and advise the staff on its implementation of and changes to associated City zero waste policies.

Strategy 2: Maintain active state and regional profile on zero waste public policy.
   1. Work with state and federal legislators to encourage other communities in the region to adopt similar zero waste goals and plans. Work where appropriate to remove and resolve mutual obstacles.
   2. Support state and national efforts to adopt:
      - Extended producer responsibility;
      - Deposit programs;
      - Funding of zero waste initiatives through statewide or regional landfill surcharges and product charges;
      - Full cost accounting for waste disposal;
      - Packaging levies (e.g., on plastic bags);
      - Minimum recycled content standards for additional products;
      - Design for the environment programs;
      - Green procurement and Green Building guidelines for the public sector;
      - National measuring, monitoring and reporting in achieving zero waste goals; and
      - New mechanisms for financial assurance for post-post-closure liabilities for landfills.

Strategy 3: Make City a zero waste model.
   1. Brief all City departments on zero waste and explore opportunities for collaboration.
   2. Implement zero waste in all City buildings and programs with milestone targets and annual progress reports, no less than which is voluntarily requested from businesses or other community institutions.
   3. Coordinate with other environmental and sustainability programs in the City to help them achieve zero waste.
   4. Arrange for independent review of City diversion progress periodically over the next six years.
   5. Develop measurable zero waste goals in job descriptions and annual performance evaluations. Post major accomplishments and highlights of progress for all departments on the zero waste Web sites on an annual basis.
   6. Expand standard specifications to govern waste handling and diversion procedures for contractors involved in operating City waste, capital and repair projects, as well as recycling and sustainability programs.
   7. Consider leasing Green Buildings as a priority for City leased facilities.
   8. Adopt and implement additional green procurement guidelines. Collaborate with other organizations to enhance purchasing power.
Strategy 4: Minimize long-term landfill liabilities.
1. Ensure that the full capital and operating, closure, post-closure and post-post-closure cost are factored into current rates and financial assurances, particularly for nonpublic agency.
2. Establish a target to reflect the benefits of avoiding these future liabilities as an avoided disposal cost.
3. Work actively with landfill operators and regulators to increase mechanisms for financial assurance liabilities.

Strategy 5: Provide funding to implement zero waste plan.
1. Create a zero waste fund to encourage local innovation and participation. Fund community zero waste initiatives with fees levied on the transport, transfer and disposal of waste where feasible.
2. Leverage the investments of the private sector by adopting supportive policies and providing technical assistance and support letters for independent financing and/or grants.
3. Identify and support proposals for state, federal and foundation grants and loans for Palo Alto businesses and service providers.


Strategy 1: Update waste data.
1. Proceed promptly with a Waste Composition Study this year to report updated data in categories and subcategories designed for programs targeted to reduce or recover those materials. Include analysis of different segments of the commercial and industrial sectors and institutions (including restaurants, medical services, retail, offices, multi-family dwellings and schools).
2. The Waste Generation Study should clearly identify reusables and materials in the waste stream that are likely to be significant targets for programs to reduce or reuse such materials.
3. After the Waste Generation Study is completed, monitor, measure and keep the community informed of progress and results. Provide annual reports on the City’s zero waste website on progress of all waste reduction initiatives. Highlight results of recent policy and program changes (e.g. 2004 City Construction Debris Recycling Ordinance and 2005 implementation of Single-Stream Recycling Program).

Strategy 2: Develop zero waste operational plan.
1. Identify what type of facilities need to be developed by and for the City to meet the service needs identified in the Strategic Plan;
2. Evaluate whether facilities exist or will be built to meet City needs by the private sector, or recommend what facilities the public sector will be required to build;
3. Evaluate the market value of reusables, recyclables and compostables still being landfilled;
4. Identify public or private programs necessary to reduce, recycle or compost the materials identified from the Waste Generation Study;
5. Design different programs for different sectors, including multi-tenant buildings (residential and commercial), downtown businesses, strip malls, restaurants and hospitality industry, and major industrial areas. Provide universal access to opportunities to reduce, reuse, then recycle and compost.
6. Evaluate long-range reliance on single-stream recycling services versus expanded source-separated collection.
7. Identify the appropriate role for SMaRT station in zero waste, and explore whether more diversion could take place at this facility or nearby;
8. Identify candidate locations for other new public and private facilities that might be required, with a conceptual basis for how to pursue the development of those facilities, while honoring the Task Force recommendations to not use park land for such facilities;
9. Reduce potential releases from degrading landfill sites that the City has a growing stake in.
10. Assess the financial impacts from proposed changes to be negotiated for the SMaRT station and Kirby Canyon Landfill;
11. Recommend policies and incentives consistent with this Strategic Plan;
12. Estimate jobs expected to be created and financial benefits from implementing the Zero Waste Operations Plan;
13. Identify which financing tools might be most helpful to local businesses to expand services needed to achieve zero waste in Palo Alto, working with the City’s Economic Development staff;
14. Determine what funding, staffing and authority will be needed for staff to implement a zero waste goal in Palo Alto.
15. Establish targets and goals for the operational plan; and
16. Establish criteria for implementing bans and mandates where voluntary efforts have not been effective in meeting zero waste.

Staff issued a Request for Proposal (RFP), July 19, 2005, to obtain the services to conduct and prepare a Waste Generation Study (WGS) and a Zero Waste Operational Plan (ZWOP). The WGS will identify what type of materials being disposed by the community today and from what sources those materials are coming from. The data collected from the WGS, combined with the ZWSP, will assist City staff in the development of a ZWOP that will target materials for elimination, reduction, reuse, and recycling. The Zero Waste Task Force group, as determined by the current co-chairs, will continue to review and comment on the Operational Plan recommendations.

Staff plans to return to Council for an award of contract for the WGS and ZWOP services on October 24, 2005. Staff estimates the completion dates of December 2005 and May 2006, respectively, for the WGS and ZWOP. Staff would return to Council in summer 2006 with the ZWOP.

**RESOURCE IMPACT**
Funds to conduct the WGS and prepare the ZWOP are included in the FY 2005-06 Refuse Fund Budget. Future funding/budget request will be necessary to implement the ZWOP. The ZWOP will identify the funds and staffing necessary for implementation.

**POLICY IMPLICATIONS**
The new Zero Waste Policy falls under the umbrella of the current City of Palo Alto Sustainability Policy and is also consistent with the Comprehensive Plan, Policy N-34, Reduce the amount of solid waste disposed in the City’s landfill by reducing the amount of waste
generated and promoting the cost-effective reuse of materials that would otherwise be placed in a landfill.

ENVIRONMENTAL REVIEW
This recommendation is not a project under the California Environmental Quality Act. The Strategic Plan is a recommendation to be considered in the development of the ZWOP. A project undertaken to implement the ZWOP will be subject to appropriate CEQA review.

ATTACHMENTS
Attachment A: Zero Waste Resolution
Attachment B: Zero Waste Strategic Plan
Attachment C: CMR: 470:04 and Council minutes of November 15, 2004
Attachment D: List of Task Force Members

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