

**CITY OF OAKLAND  
AGENDA REPORT**

OFFICE OF THE CITY CLERK  
2006 FEB 28 PM 4:05

TO: Office of the City Administrator  
ATTN: Deborah Edgerly  
FROM: Public Works Agency  
DATE: February 28, 2006

RE: **A RESOLUTION ADOPTING A STRATEGIC PLAN FOR REDUCTION AND RECYCLING OF RESIDENTIAL, COMMERCIAL, AND INDUSTRIAL SOLID WASTES TO ACHIEVE THE COUNCIL GOAL OF 75% SOLID WASTE DIVERSION IN 2010**

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**SUMMARY**

In 2002, through adoption of Resolution No. 77500 C.M.S, City Council set a goal of 75% reduction of waste going to landfills by 2010, in alliance with the countywide 75% waste reduction goal. The resolution further directed the Public Works Agency, Environmental Services Division, to return to Council with a plan identifying the strategies to accomplish this goal. This staff report presents the Strategic Plan for addressing the 75% waste reduction goal.

Staff reported 53% diversion to the state for calendar year 2003, the most recent year that all data are available for this calculation. The remaining diversion needed to meet the 75% diversion goal is 22%. The proposed programs presented in this Strategic Plan include estimated additional diversion ranging from 12 to 22%. Added to the 2003 baseline diversion figure, the 2010 solid waste estimated diversion rate ranges from 65 to 75%. Adoption of the Strategic Plan is consistent with the Council goal to Develop a Sustainable City.

Reaching the 75% solid waste diversion goal presents a major challenge to Oakland. In November 2005, staff of StopWaste.Org (formerly the Alameda County Waste Management Authority and Source Reduction and Recycling Board) reported to the Source Reduction and Recycling Board that it was unlikely that Alameda County would meet the 75% mandate set by Measure D. San Francisco and Berkeley, where Zero Waste goals for 2020 were adopted concurrently with a 75% diversion goal for 2010, face many of the same challenges as Oakland in reaching the 75% waste reduction goal.

**FISCAL IMPACT**

The proposed programs identified in the Strategic Plan are initially funded from the Recycling Program (Fund 1710) adopted as part of the FY 2005-07 Adopted Policy Budget for Public Works, Environmental Services, Solid Waste and Recycling Program (Organization 30682). As programs are further developed additional sources of funding may be granted from public agencies such as StopWaste.Org, California Integrated Waste Management Board, and the California Department of Conservation.

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For FY 2005-07, an annual allocation of \$300,000 has been identified (Fund 1710, 30682, P275210.SC17) for development of new, non-residential recycling programs. Additionally, \$196,880 is available in FY2005-06 Adopted Policy Budget from StopWaste.Org for Import Mitigation Funds (Fund 2175, 30682, H63640.SC17), which can be used for non-residential waste reduction and recycling programs; a similar amount will be available in future fiscal years.

## **BACKGROUND**

AB939, passed in 1989, established the California Integrated Waste Management Act, which mandated cities and counties to achieve 25% waste diversion by 1995, and 50% waste diversion by 2000. AB939 further required each city and county to develop a strategic plan, known as Source Reduction and Recycling Element (SRRE), and to implement the selected programs of the SRRE to comply with the diversion requirements.

In 1990, Alameda County voters passed Measure D, put on the ballot through the initiative process, establishing the countywide 75% waste reduction goal through an amendment of the County Charter. Although Oakland is not subject to the 75% mandate of Measure D, the City's participation is critical to the County's success in meeting the goal.

In 2002, Oakland City Council adopted Resolution No. 77500 to set a goal to reduce waste by 75% in 2010 to support the aims of Measure D and the timeline established by the Alameda County Source Reduction and Recycling Board.

The programs and ideas discussed in the Strategic Plan will address the City's goal of 75% waste diversion by 2010 and are consistent with and supportive of several environmental policies adopted by the City, including:

- Sustainable Development Initiative (Resolution No. 74678-98, 1998)
- FY 2005-07 Mayor and City Council Goals that include Develop a Sustainable City
- Establishing membership in Chicago Climate Exchange (Resolution No. 79135 C.M.S., April 5, 2005)
- United Nations World Environment Day Urban Environmental Accords – Signed by Mayor Jerry Brown on June 5, 2005

## **KEY ISSUES AND IMPACTS**

The Strategic Plan for reaching the Council goal of 75% solid waste diversion by 2010, detailed in Attachment 1, describes initiatives in four program areas: Residential, Commercial (including Construction & Demolition [C&D]), and Zero Waste. Table 1 illustrates the estimated diversion rates of the programs identified to bring the City to the 75% waste diversion goal.

Table 1. Waste Reduction and Recycling Program Diversion

Waste Reduction and Recycling Programs	Diversion (%)	
	Low	High
<b>Residential Programs</b>		
Single-Family Dwelling Recycling	2	5
Multi-Family Dwelling Recycling	0	1
<b>Commercial Programs</b>		
C&D Waste Reduction and Recycling	1	3
C&D Market Development	1	2
Medium and Small Business Technical Assistance for Waste Reduction and Recycling	1	2
Stop Waste Partnership	2	2
Green Business	1	1
Commercial Organics	1	1
<b>Zero Waste Programs</b>		
Zero Waste Policy	unknown	unknown
Environmentally Preferable Purchasing Policy	unknown	unknown
Disposal Bans	3	5
Product Use Bans	unknown	unknown
<b>Additional Diversion (Through New and Expanded Programs)</b>	<b>12</b>	<b>22</b>
<b>Baseline Diversion Rate (2003)</b>	<b>53</b>	<b>53</b>
<b>Total Diversion (2010)</b>	<b>65</b>	<b>75</b>

**Residential**

The majority of Oakland's efforts, and the most widely noted and well understood, have been focused on recycling program implementation in the residential sector. With implementation of one-cart recycling, addition of food scraps, and transition to citywide weekly service for recycling and yard trimmings in spring of 2005, potential for additional diversion in this sector in the foreseeable future is now limited to that achievable through ongoing promotion of existing programs. Increase in solid waste diversion due to continuing improvement of the existing residential program may range from 2 to 6% when the program is fully matured in 2010.

**Commercial**

The greatest opportunity for additional solid waste diversion lies in efforts targeting waste reduction and recycling in the commercial sector. Commercial services are provided on the open market by independent private operators and, for small businesses, by City recycling contracts. In addition, the Alameda County Green Business Program and Stop Waste Partnership work with businesses in Oakland to implement a range of environmentally responsible business practices, including recycling. Staff proposes to actively solicit participation in all the aforementioned business services through targeted technical assistance.

A major subset of commercial sector programs, Construction and Demolition (C&D) debris recycling and market development for recycling businesses that process C&D debris materials, are two areas where staff efforts may yield significant solid waste diversion results. Increase in solid waste diversion due to improvement of commercial sector participation, including C&D, may range from 7 to 11%.

### ***Moving towards Zero Waste***

Staff estimates that the commercial and residential waste reduction and recycling efforts identified in the Strategic Plan will yield between 9 and 17% additional diversion beyond the 53% diversion reported to the state in 2003. After implementation of the proposed commercial and residential measures, Oakland's solid waste diversion rate in 2010 will range from 62 to 70%, short of the 75% solid waste reduction goal. Because "downstream" programs, designed to manage waste already created, are too limited in scope to meet the 75% waste diversion goal, an emphasis must be directed towards "upstream" programs that prevent or reduce waste.

Emphasis on "upstream" programs lies at the heart of "Zero Waste." In the narrowest terms, Zero Waste is simply the goal of eliminating disposal of solid waste at landfills and incinerators. More broadly, Zero Waste addresses all outputs to land, water, or air. Achieving Zero Waste means all materials that are currently considered waste and end up in landfills or incinerators, are instead returned "upstream" as feedstock for new products or services, or decompose so they can be reintegrated into nature without negative environmental impacts.

Zero Waste principles, as applied to discarded materials that may become municipal solid waste are:

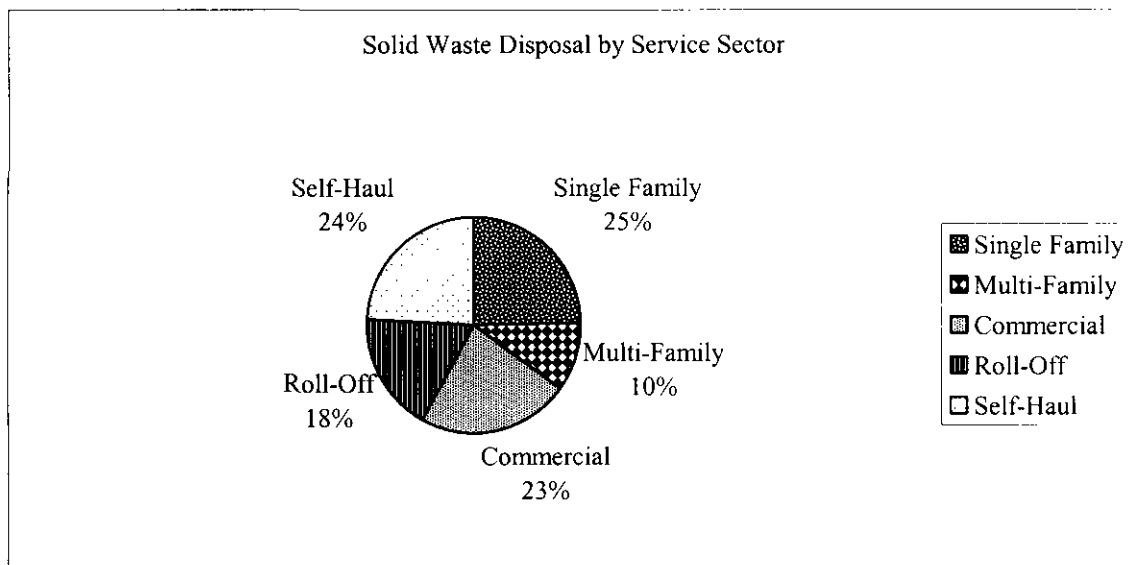
- Improving "downstream" reuse/recycling of end-of-product life materials
- Pursuing "upstream" materials and system re-design strategies to reduce the volume and toxicity of discarded materials
- Fostering and supporting use of discarded materials to stimulate and drive local economic and workforce development

Staff proposes that to accompany the initiatives in the residential and commercial sectors, the concept of Zero Waste be adopted and implemented as part of the Strategic Plan. A more detailed discussion of Zero Waste and a Resolution to Adopt a Zero waste Goal by 2020, is included in a separate report to the Public Works Committee.

### **PROGRAM DESCRIPTION**

The programs listed in Table 1 are discussed in detail in the Strategic Plan for reaching the Council goal of 75% solid waste diversion by 2010 (Attachment 1), and summarized below in brief. Table 2 illustrates that approximately 35% of the solid waste generated in Oakland is residential and 65% is non-residential.

Table 2. Solid Waste Disposal by Service Sector



### Residential Recycling Programs

Oakland began citywide curbside recycling services in 1993, added yard trimmings collection in 1995, and expanded the curbside recycling program 1996. Nine years later, in January 2005, staff implemented a sweeping overhaul of the residential recycling program, replacing the curbside tub service with weekly single cart service, expanding the existing yard trimmings program to include food scraps and accept unlimited amounts of properly prepared yard trimmings throughout Oakland. A comprehensive multi-lingual media campaign introducing and promoting the new residential program, providing detailed information on how to participate, was key to the successful implementation of these new services. Recycling tonnage has increased by 38%, due to both the normalization of weekly service citywide, and the capacity and convenience offered by the new gray carts. With the addition of food scraps and shift to weekly service has increased yard trimmings tonnage by 46%.

### Recommendations

- Continue basic outreach and information program including printing a revised basic program brochures, bill inserts, and newsletters; tabling at public events; community presentations on request
- Continue active participation in regional promotion efforts on residential food scraps
- Renew promotion of the Multi-Family Dwelling (MFD) recycling programs, including development of new MFD informational packet, through cooperative efforts with CWS and WMAC
- Add selected recyclable materials, such as wide-mouth plastic containers, to residential recycling program where feasible

*Residential Recycling Program Estimated Additional Diversion: 2-6%*

### **Commercial Waste Reduction and Recycling Programs**

Commercial (including industrial) solid waste comprised 41% of Oakland's waste stream in 2000, the last year a waste characterization study was conducted in Alameda County. This includes only solid waste collected by WMAC, the franchised solid waste hauler, and excludes commercial waste that was delivered directly to disposal sites by the generators. Most of the non-franchised waste delivered directly to disposal sites is commercial in origin, generated by Construction and Demolition (C&D) activities, and comprises an additional 24% of the waste stream.

The Strategic Plan discusses several commercial waste reduction and recycling programs:

- C&D Waste Reduction and Recycling
- C&D Market Development
- Medium and Small Business Waste Reduction and Recycling
- StopWaste Partnership
- Alameda County Green Business Program
- Commercial Organics (food scraps) Diversion

Activities in these areas could result in diverting as much as an additional 11% of the solid waste stream annually.

While commercially generated solid waste is part of the Solid Waste Franchise Agreement with WMAC, commercially generated source separated recyclables are explicitly excluded from the franchise per Oakland Municipal Code 8.28.060. Oakland enjoys a robust open market recycling infrastructure, with multiple independent service providers filling a variety of niche markets. The viability of this collection infrastructure is supported by its proximity to the Port of Oakland and a number of recycling processors, many of whom export materials to Pacific Rim nations. This open-market system provides recycling services to Oakland's complex and diverse commercial and industrial economy, including services to construction and demolition activities.

Oakland's C&D Debris Waste Reduction and Recycling Ordinance requires affected projects to divert a minimum of 50% of the waste from landfill. Although this program has been successful since implementation in 2000, the Strategic Plan proposes to explore ways of streamlining the administrative processes and strengthening the ordinance through amendment. It is apparent that thousands of tons of recyclable and reusable materials generated by C&D projects are needlessly landfilled despite the existing ordinance. In addition, markets for some materials are either just emerging or are by nature difficult to site in an urban environment, and the City's support for these specialty recyclers is critical to the continued success of C&D debris diversion.

Several existing programs support waste reduction and recycling in the commercial sector, apart from C&D activities. The City's Small Business Recycling Program is a service provided by WMAC and CWS as part of the residential recycling agreements. StopWaste Partnership (SWP), a program of StopWaste.Org, provides free, technical assistance to businesses and public agencies in Alameda County to help improve environmental performance while reducing costs.

The Alameda County Green Business Program promotes environmentally responsible business practices, through a certification program that focuses on small and medium sized businesses. Commercial food scraps collection services are provided by private companies in open market competition. The Strategic Plan proposes to provide technical assistance to small and medium size businesses to enroll in available waste reduction and recycling services, in concert with these existing programs, and supported by a comprehensive outreach program.

### Recommendations

#### C&D Waste Reduction and Recycling

- Explore and implement all feasible administrative improvements to the C&D Program including allowable adjustments to requirements, and streamlining of permit processing
- Complete redesign of the Green Building Resource Center
- Complete research on options for expanding scope of C&D Ordinance and adding financial incentives, and return to City Council with recommendation of C&D Ordinance amendment
- Continue with existing C&D outreach and education activities, including updates of existing materials

*C&D Waste Reduction and Recycling Estimated Additional Diversion: 1-3%*

#### C&D Market Development

- Complete deconstruction feasibility study for Oakland Army Base and provide ongoing technical assistance to maximize solid waste diversion during site preparation and development
- Continue exploration of markets for specialty C&D recyclable materials
- Pursue site alternatives for C&D recyclers that minimize environmental impacts

*C&D Market Development Estimated Additional Diversion: 1-2%*

#### Medium and Small Business Waste Reduction and Recycling

- Begin waste reduction and recycling technical assistance to small businesses by June 2006
- Implement and sustain an outreach program targeting commercial waste reduction using Import Mitigation Funding

*Business Outreach and Technical Assistance Estimated Additional Diversion: 1-3%*

#### StopWaste Partnership

- Refer eligible businesses contacted by small business technical assistance to the Stop Waste Partnership
- Contact Stop Waste Partnership participants who have not implemented recommended environmental measures to encourage full participation
- Support development of Sustainable Business Rating System
- Coordinate documentation and promotion of recycling at public venues, per AB2176

*StopWaste Partnership Collaboration Estimated Additional Diversion: 1-2%*

Alameda County Green Business Program

- Implement project for targeted solicitation and certification of green businesses using Import Mitigation Funding
- Refer businesses to the program through the business technical assistance initiative

*Green Business Program Promotion Estimated Additional Diversion: 1%*

Commercial Organics (food scraps) Diversion

- Survey current and former participants in organics collection program to identify obstacles to and incentives for participation, to inform development of technical assistance and outreach products
- Work with service providers to identify useful methods/means of City assistance, including, but not limited to, printed brochures and technical assistance specific to commercial food scraps; and implement feasible programs
- Refer eligible businesses to service providers through business technical assistance contract
- Monitor ongoing activities in other Bay Area communities where commercial food scraps services are provided to identify and analyze emerging trends in franchising

*Commercial Organics Diversion Estimated Additional Diversion: 1%*

**Zero Waste Programs**

The 75% Waste Reduction Strategic Plan attached to this report concludes that traditional “downstream” waste management programs alone cannot succeed in diverting 75% of Oakland’s solid waste, and that zero waste strategies must be implemented for Oakland to reach its 75% waste reduction goal. The 75% Waste Reduction Strategic Plan recommends that Oakland adopt a goal of zero waste to landfills and incinerators by 2020 and direct staff to prepare a strategic plan for the City of Oakland to achieve this goal. A separate Council Report (concurrent to this report) requests Council approve this recommendation.

Governments set zero waste goals to conserve resources and prevent pollution, and to expand industrial and commercial productivity through upgrading, repairing, remanufacturing, reprocessing, and trading in materials that have been conserved by reuse, recycling, and composting businesses, thereby creating community health, wealth, and general well being.

The Strategic Plan recommends implementing zero waste strategies, including adoption of an Environmentally Preferable Purchasing (EPP) Policy, and exploration of bans on disposal and use of wasteful or environmentally harmful products. The overall goal of EPP is to ensure that environmental and human health are sustained and improved by including environmental and health attribute considerations in the selection of products and services, along with such traditional buying factors as performance, quality, service, price, and local availability.



State and local governments in the United States and Europe have used a variety of bans to influence the consumption and disposal behavior of residents and businesses. Disposal bans prohibit the placement of targeted recyclable materials in garbage receptacles. Landfill bans prohibit the solid waste haulers and disposal site operators from disposing of targeted recyclable materials. Product use bans require businesses to use or supply products that are less environmentally harmful than the one targeted by the ban.

#### Recommendations

- Adopt a goal of zero waste to landfills and incinerators by 2020 and direct staff to prepare a Zero Waste Strategic plan for the City of Oakland to achieve the Zero Waste Goal
- Establish a interdepartmental steering committee to oversee development of an EPP Policy, and return to City Council for approval of EPP Policy and Implementation Plan
- Research and monitor outcomes in communities that have implemented disposal bans
- Evaluate feasibility of selected bans informed by Waste Characterization Study data available in 2009
- Monitor product use ban developments in other jurisdictions for applicability in Oakland

### **SUSTAINABLE OPPORTUNITIES**

#### Economic

Implementation of the plan for 75% solid waste diversion will promote economic development by helping businesses to operate more efficiently and encouraging location of “waste” based businesses in Oakland.

#### Environment

Implementation of the plan for 75% solid waste diversion promotes sustainability, natural resource conservation, and pollution prevention and reduction.

#### Social Equity

Implementation of the plan for 75% solid waste diversion can provide economic stimulus that fosters creation of green-collar living wage jobs in Oakland.

### **DISABILITY AND SENIOR ACCESS**

This informational report has no direct effect on accessibility for senior citizens or disabled persons.

### **RECOMMENDATION AND RATIONALE**

Staff recommends that the City Council approve the resolution adopting a strategic plan for reduction and recycling of residential, commercial, and industrial solid wastes to achieve the Council goal of 75% solid waste diversion in 2010. Without an adopted plan to inform decision-making processes, including resource allocation, achieving the 75% solid waste diversion goal

will be extremely difficult. With a Strategic Plan approved by Council, staff will be better able to focus resources on Council priorities in addressing the solid waste diversion goal.

**ACTION REQUESTED OF THE CITY COUNCIL**

Staff recommends that the City Council approve the resolution adopting a Strategic Plan for reduction and recycling of residential, commercial, and industrial solid wastes to achieve the Council goal of 75% solid waste diversion in 2010.

Respectfully submitted,



**RAUL GODINEZ II, P.E.**  
Director, Public Works Agency

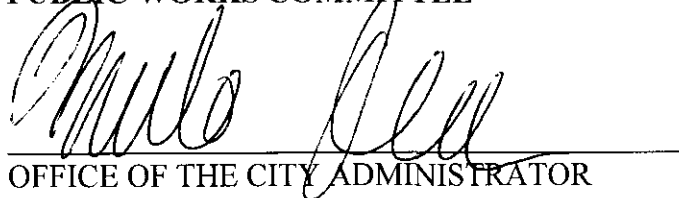
Reviewed by:

Brooke A. Levin  
Assistant Director  
Department of Facilities & Environment

Prepared by:

Becky Dowdakin  
Solid Waste & Recycling Programs Supervisor  
Environmental Services Division

**APPROVED AND FORWARDED TO THE  
PUBLIC WORKS COMMITTEE**

  
OFFICE OF THE CITY ADMINISTRATOR

# Strategic Plan for 75% Reduction and Recycling of Solid Waste

City of Oakland  
Public Works Agency  
February 28, 2006

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## **I EXECUTIVE SUMMARY**

### **Introduction**

In 2002, through adoption of Resolution No. 77500 C.M.S, City Council set a goal of 75% reduction of waste going to landfills by 2010, in alliance with the countywide 75% waste reduction goal. The resolution further directed the Public Works Agency, Environmental Services Division, to return to Council with a plan identifying the strategies to accomplish this goal. This Strategic Plan outlines the programs and initiatives needed to bring Oakland to the 75% waste reduction goal.

Staff reported 53% diversion to the state for calendar year 2003, the most recent year that all data are available for this calculation. The remaining diversion needed to meet the 75% diversion goal is 22%. The proposed programs presented in this Strategic Plan include estimated additional diversion ranging from 12 to 22%. Added to the 2003 baseline diversion figure, the 2010 solid waste estimated diversion rate ranges from 65 to 75%.

The solid waste diversion rate is an expression of the amount of solid waste not disposed of by landfill or incineration compared to the total solid waste generated. For purposes of this Plan, staff estimates that in 2010, Oakland will generate 800,000 tons of solid waste, and will need to divert 600,000 tons and dispose of only 200,000 tons to achieve 75% diversion. In this Plan, each percentage point of diversion is equivalent to 8,000 tons. To raise the diversion rate from 53% to 75%, Oakland will need to divert 176,000 additional tons of solid waste.

### **Background**

AB939, passed in 1989, established the California Integrated Waste Management Act, which mandated cities and counties to achieve 25% waste diversion by 1995, and 50% waste diversion by 2000. AB939 further required each city and county to develop a strategic plan, known as Source Reduction and Recycling Element (SRRE), and to implement the selected programs of the SRRE to comply with the diversion requirements.

In 1990, Alameda County voters passed Measure D, put on the ballot through the initiative process, establishing the countywide 75% waste reduction goal through an amendment of the County Charter. In 2002, Oakland City Council adopted Resolution No. 77500 to set a goal to reduce waste by 75% in 2010 to support the aims of Measure D and the timeline established by the Alameda County Source Reduction and Recycling Board.

### **Summary**

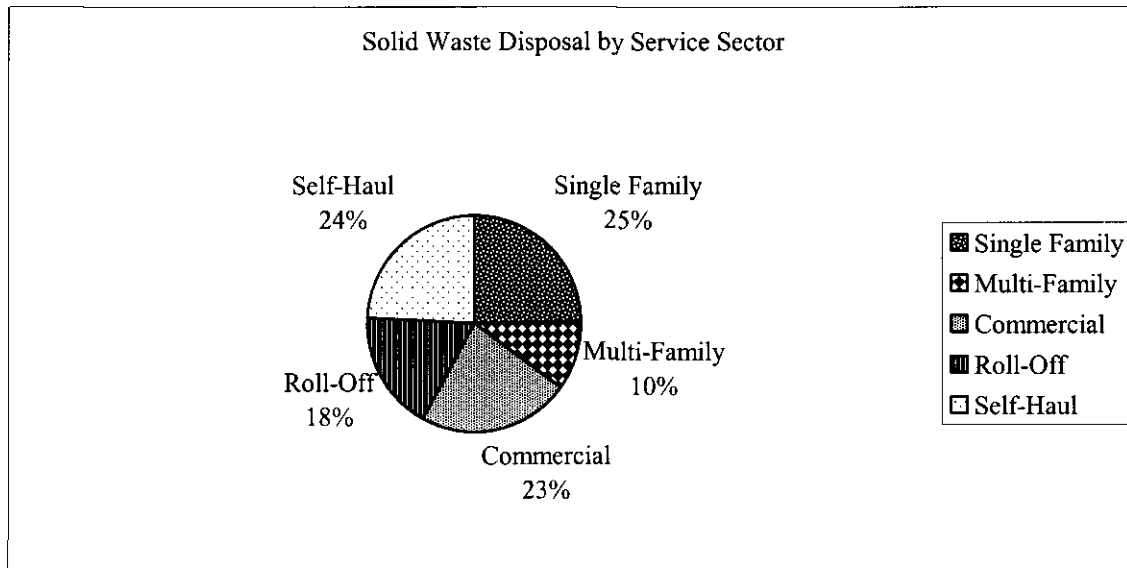
The majority of Oakland's efforts, and the most widely noted and well understood, have been focused on recycling program implementation in the residential sector. With implementation of one-cart recycling, addition of food scraps, and transition to citywide weekly service for recycling and yard trimmings in spring of 2005, potential for additional diversion in this sector in the near future is now limited to that achievable through ongoing promotion of existing programs. Increase in solid waste diversion due to continuing improvement of the existing residential program may range from two to six percent when the program is fully matured in 2010, as illustrated in Table 1.

Table 1. Waste Reduction and Recycling Program Diversion

Waste Reduction and Recycling Programs	Diversion (%)	
	low	high
<b><i>Residential Programs</i></b>		
Single Family Dwelling Recycling	2	5
Multi-Family Dwelling Recycling	0	1
<b><i>Commercial Programs</i></b>		
C&D Waste Reduction and Recycling	1	3
C&D Market Development	1	2
Medium and Small Business Technical Assistance for Waste Reduction and Recycling	1	2
Stop Waste Partnership	2	2
Green Business	1	1
Commercial Organics	1	1
<b><i>Zero Waste Programs</i></b>		
Zero Waste Policy	unknown	unknown
EPP Policy	unknown	unknown
Disposal Bans	3	5
Product Use Bans	unknown	Unknown
<b>Additional Diversion (New Programs)</b>	<b>12</b>	<b>22</b>
<b>Baseline Diversion Rate (2003)</b>	<b>53</b>	<b>53</b>
<b>Total Diversion (2010)</b>	<b>65</b>	<b>75</b>

The greatest opportunity for additional solid waste diversion lies in efforts targeting waste reduction and recycling in the commercial sector. As illustrated in Table 2, 65% of Oakland's waste is generated by the non-residential sector. Commercial services are provided on the open market by independent private operators and, for small businesses, by City recycling contracts. In addition, the Alameda County Green Business Program and Stop Waste Partnership work with businesses in Oakland to implement a range of environmentally responsible business practices, including recycling. Staff proposes to actively solicit participation in all the aforementioned business services through targeted technical assistance.

Table 2. Solid Waste Disposal by Service Sector



A major subset of commercial sector programs, Construction and Demolition (C&D) debris recycling and market development for recycling businesses that process C&D debris materials, are two areas where staff efforts may yield significant solid waste diversion results. Increase in solid waste diversion due to improvement of commercial sector participation, including C&D, may range from 7-11%.

Staff estimates that the commercial and residential waste reduction and recycling efforts identified in the Strategic Plan will yield between 9-17% additional diversion beyond the 53% diversion reported to the state in 2003. After implementation of the proposed commercial and residential measures, Oakland’s solid waste diversion rate in 2010 will range from 62-70%, short of the 75% solid waste reduction goal. Because “downstream” programs, designed to manage waste already created, are too limited in scope to meet the 75% waste diversion goal, an emphasis must be directed towards “upstream” programs that prevent or reduce waste.

Emphasis on “upstream” programs lies at the heart of “Zero Waste.” In the narrowest terms, Zero Waste is simply the goal of eliminating disposal of solid waste at landfills and incinerators. More broadly, Zero Waste addresses all outputs to land, water, or air. Achieving Zero Waste means all materials that are currently considered waste and end up in landfills or incinerators, are instead returned “upstream” as feedstock for new products or services, or decompose so they can be reintegrated into nature without negative environmental impacts.

Zero Waste principles, as applied to discarded materials that may become municipal solid waste are:

- Improving “downstream” reuse/recycling of end-of-product life materials
- Pursuing “upstream” materials and system re-design strategies to reduce the volume and toxicity of discarded materials

- Fostering and supporting use of discarded materials to stimulate and drive local economic and workforce development

Staff proposes that to accompany the initiatives in the residential and commercial sectors, the concept of Zero Waste be adopted and implemented as part of the Strategic Plan.

Reaching the 75% solid waste diversion goal presents a major challenge to Oakland. In November 2005, staff of StopWaste.Org (formerly the Alameda County Waste Management Authority and Source Reduction and Recycling Board) reported to the Source Reduction and Recycling Board that it was unlikely that Alameda County would meet the 75% mandate set by Measure D. San Francisco and Berkeley, where Zero Waste goals for 2020 were adopted concurrently with a 75% diversion goal for 2010, face many of the same challenges as Oakland in reaching the 75% waste reduction goal.

## **II. RESIDENTIAL RECYCLING PROGRAM**

Oakland began citywide curbside recycling services in 1993, added yard trimmings collection in 1995, and expanded the curbside recycling program 1996. Nine years later, in 2005, staff implemented a sweeping overhaul of the residential recycling program, described below. No major program changes are planned over the next five years.

On January 31, 2005, roll out of a new residential recycling program began throughout Oakland, the first major modification to the residential recycling program since the addition of yard trimmings service in 1995. Effective that first day, the existing yard trimmings program was expanded to include food scraps and to accept unlimited amounts of properly prepared yard trimmings, with collection increasing from bi-weekly to weekly service. The tub-based curbside recycling program, which was previously provided as a weekly service in only half the city, was replaced by a weekly single-cart service throughout Oakland.

The City's recycling contractors, California Waste Solutions (CWS) and Waste Management of Alameda County (WMAC), delivered 64-gallon gray recycling carts to replace the old tubs, along with a little green pail for food scraps, to every single-family residence in Oakland, completing the roll out by April 30, 2005. A comprehensive multi-lingual media campaign introducing and promoting the new residential program, and providing detailed information on how to participate, was a key to the successful implementation of these new services (Exhibit A).

The growth in yard trimmings and recycling tonnages in 2005 was dramatic and clearly attributable to the new programs (Table 2). Yard trimmings tonnage has increased by over 46% compared to 2004, and while some portion of this increase may be due to an exceptionally rainy spring, the availability of unlimited weekly service is the main contributing factor. Recycling tonnage has increased by 38%, due to both the normalization of weekly service citywide, and the capacity and convenience offered by the new gray carts.



Table 2. Residential Solid Waste & Recycling Programs

Collection Tonnage	2001	2002	2003	2004	2005
Solid Waste	111,909	108,986	87,748	87,836	77,412
Yard Trimmings	28,471	23,861	24,379	22,946	33,498
Recycling	27,842	27,777	29,091	28,269	38,901

Preliminary data indicate of the households setting out yard trimmings carts, about 15% are participating in the food scraps services, which is comparable to participation found in other cities during the first year of food scraps collection.

The rollout included only minor adjustments to services to Multi-Family Dwellings (MFDs), which are buildings with five or more units, including delivery of carts to participating MFDs that had been using tubs.

Continuous promotion of all aspects of the residential recycling program is necessary to maintain public interest and to bring the new services to maturity. The ongoing outreach and information program (see Exhibit A) for residential services will include basic program brochures, bill inserts, and newsletters, with emphasis on continued participation in regional efforts on residential food scraps.

Recommendation

- Continue basic outreach and information program including printing a revised basic program brochures, bill inserts, and newsletters; tabling at public events; community presentations on request
- Continue active participation in regional promotion efforts on residential food scraps
- Renew promotion of the MFD recycling programs, including development of new MFD informational packet, through cooperative efforts with CWS and WMAC
- Add selected recyclable materials, such as wide-mouth plastic containers, to residential recycling program where feasible

*Residential Recycling Program Estimated Additional Diversion: 2-6%*

**III. COMMERCIAL WASTE REDUCTION AND RECYCLING PROGRAMS**

Commercial (including industrial) solid waste comprised 41% of Oakland’s waste stream in 2000, the last year a waste characterization study was conducted in Alameda County. This includes only solid waste collected by WMAC, the franchised solid waste hauler, and excludes commercial waste that was delivered directly to disposal sites by the generators. Most of the non-franchised waste delivered directly to disposal sites is commercial in origin, generated by

Construction and Demolition (C&D) activities, and comprises an additional 24% of the waste stream.

While commercially generated solid waste is part of the Franchise Agreement for Solid Waste and Yard Waste Collection and Disposal Services between the City of Oakland and Waste Management of Alameda County, Inc., commercially generated source separated recyclables are explicitly excluded from the Franchise per Oakland Municipal Code 8.28.060.

Oakland enjoys a robust open market recycling infrastructure, with multiple independent service providers filling a variety of niche markets. The viability of this collection infrastructure is supported by its proximity of the Port of Oakland and a number of recycling processors, many of whom export materials to Pacific Rim nations.

The Strategic Plan discusses several commercial waste reduction and recycling programs:

- C&D Waste Reduction and Recycling
- C&D Market Development
- Medium and Small Business Waste Reduction and Recycling
- StopWaste Partnership
- Alameda County Green Business Program
- Commercial Organics (food scraps) Diversion

Activities in these areas could result in diverting as much as an additional 11% of the solid waste stream annually.

### **Construction & Demolition Waste Reduction and Recycling**

In 2000, Council amended the Oakland Municipal Code adding the Construction and Demolition (C&D) Debris Waste Reduction and Recycling Requirement, through approval of Ordinance No. 12253 C.M.S. The “C&D Ordinance” applies to all new construction, all non-residential and apartment house demolition, and alterations of non-residential and apartment house with project valuations of more than \$50,000. Submission of “Waste Reduction and Recycling Plans” showing a minimum of 50% waste diversion is required for the issuance of a building permit for affected projects. Finalization and closure of a permit requires the submission of a “C&D Summary Report” showing that a minimum of 50% diversion was achieved on the project. Since January 2002, 1,882 such projects have been subject to the C&D Ordinance, resulting in the documented diversion of approximately 75% of the C&D waste.

Despite the success of Oakland’s existing C&D recycling program, many thousand of tons of C&D debris are still landfilled. A significant portion of this tonnage is generated by projects that fall outside the scope of the current ordinance, and in other cases market forces do not support diversion of the debris. Nonetheless, in the past five years, new tools, technologies, and markets have developed to support C&D recycling and these developments require continuous promotion and support.

Staff proposes to explore options for expanding the scope of the C&D Ordinance to include projects not currently included, to raise the diversion requirements for all projects, to identify and

implement creative incentive programs, and to bolster education efforts. Some of these modifications would require amendment of the Construction and Demolition Debris Waste Reduction and Recycling Requirement (OMC Section 15.34), while others may be approved administratively.

### Ordinance Amendment

Preliminary staff research into expanding the scope of the C&D Ordinance includes

- Alteration or removal of the permit valuation threshold on commercial permits could capture an additional 3,000 C&D debris tons, adding another 700 permits into the process.
- Clarifying the definition of the threshold for demolition could divert 7,000 additional tons.
- Inclusion of single-family residential remodels and demolitions that could capture an additional 20,000 tons of C&D debris currently disposed. Approximately 840 permits would be affected annually.

Finally, staff will investigate the effectiveness of imposing penalties for ordinance non-compliance. Oakland's C&D ordinance has focused on providing education and technical assistance to win compliance from local builders and contractors. Other cities have implemented C&D ordinances requiring contractors to post bonds to ensure compliance, and/or to pay penalties for non-compliance. Some of these cities have implemented successful C&D diversion programs with these financial disincentives and others have not been successful. Although C&D waste reduction and recycling practices to a degree have become industry standards in the Bay Area, the current C&D Ordinance does not specify any penalties or disincentives for non-compliance.

### Administrative Initiatives

The C&D Ordinance allows for administrative adjustment to the diversion requirement, which is currently 50%. Staff proposes to raise the requirement to 100% for asphalt, concrete and related inert materials, and to 65% for all other materials. Recycling of concrete, asphalt and other inert materials is more cost effective than landfill disposal, and is common industry practice regardless of recycling requirements. When these dense materials are included in the calculation of overall waste reduction and recycling, diversion of other recyclable materials (wood, metals, etc.) may not be necessary to meet the minimum diversion requirement. To avoid this skewing of the diversion, staff proposes to require all asphalt, concrete and other inert materials be recycled, so that appropriate emphasis is shifted to the diversion of other materials. There are several facilities in the Bay Area that recycle mixed loads of C&D debris, and which achieve an overall diversion rate of 65% or more. A cost effective alternative to disposal exists in the form of mixed C&D processing facilities, making attainment of an elevated diversion goal in Oakland feasible for most projects. This adjustment to the minimum requirement could capture 8,000 additional C&D debris tons.

Financial rewards to contractors who achieve diversion rates well above the minimum, or opt for deconstruction in lieu of demolition, may provide further incentive for diversion of C&D debris. StopWaste.Org Import Mitigation Funds, which are earmarked for non-residential recycling or

other innovative waste diversion initiatives, could be used to further develop and encourage C&D recycling.

Other opportunities for improving diversion of C&D debris through administrative initiatives include:

- clarifying definitions
- establishing a uniform reporting format for third-party vendors
- implementing on-line form submittals
- developing protocols for addressing non-compliant projects.

#### Ongoing Outreach, Education, and Technical Assistance

The focus of staff efforts in this sector has been on educating building contractors on the merits of Oakland's C&D program and providing them technical assistance to comply with the requirements. Oakland is a leader in providing C&D waste reduction and recycling education, having developed a training video to assist contractors with required forms, offering fixed office hours for technical assistance, providing lectures and presentations to Laney and Merritt College construction training programs, hosting County-Wide C&D workshops, and providing onsite trainings and logistical evaluations. In addition, the C&D program is thoroughly presented on the Public Works Agency website and is maintained with updates as needed.

The Public Works Agency has continue to manage the Green Building Resource Center (GBRC), located next to the Planning & Zoning Counter on the 2<sup>nd</sup> floor of 250 Frank H. Ogawa Plaza. The GBRC offers information to permit applicants, builders, property owners, and the general public on green building and how to minimize the impacts of the built environment on the natural environment, including waste reduction during building construction and occupation. Energy conservation, recycled content materials, reusing existing buildings, integrated design, renewable energy systems, and many other tools are available to make buildings green. The GBRC has had over 23,000 visitors since it opened in 2000.

The GBRC is currently under redesign, and when complete will be our primary outreach tool for many topics related to a sustainable city. The redesign includes displays showing green building products in action and in context, computer kiosks for active web research and training, and showcases on the Leadership in Energy and Environmental Design case studies. A Virtual Tour will be developed allowing remote web access the same products, displays and information available to the on-site visitor. The virtual tour will include links to local outlets for the featured materials and the manufacturer's websites for more details. This project will allow the building community to access the entire range of information from their homes or offices. The redesigned GBRC is slated for completion in April 2006.

Other efforts on outreach, education and technical assistance in coming years will include assistance to StopWaste.Org with updates and editing of the Builders Guide to Reuse and Recycling, workshops on C&D recycling to show shortcuts and best management practices, creation of a slide show of the annual countywide workshop outline for those who miss the program, and updating of the C&D video to reflect new changes to program.

### Recommendations

- Complete research on options for expanding scope of C&D Ordinance
- Explore inclusion of financial incentives in C&D Ordinance
- Return to City Council with recommendation of C&D Ordinance amendment
- Explore and implement all feasible administrative improvements including allowable adjustments to requirements, and streamlining of permit processing
- Complete redesign of the GBRC
- Continue with existing outreach and education activities, including updates of existing materials

*C&D Waste Reduction and Recycling Estimated Additional Diversion: 1-3%*

### **C&D Market Development**

The Recycling Market Development Zone (RMDZ) Program, established by City Council in 1992 through Resolution #68780 C.M.S., funded by the Recycling Fund (1710), and administered through the Planning Division of the Community and Economic Development Agency (CEDA), assists businesses within the zone that use recycled materials in value-added processing and manufacturing. The RMDZ includes all of the industrially zoned lands of Oakland and Berkeley. Services provided by the RMDZ Program to these recycling-based businesses include assistance in securing grants and low-interest loans, obtaining sites and permits, in securing reliable supplies of recycled raw materials, and developing business marketing plans. Planning staff is currently working with about 30 active RMDZ clients in Oakland. RMDZ and Recycling Program staff will focus on two areas of market development that are related to C&D: Deconstruction and C&D Commodities and Operators.

### Deconstruction

Deconstruction is the process of taking a building apart and making the materials available for reuse or resale, and may include some value added inputs such as remilling the lumber to standard sizes or cleaning mortar off bricks. Deconstruction offers additional advantages that demolition recycling does not. Demolishing a building and sending it out for recycling may yield a recycling rate of 45%, while Deconstruction, based on projects from around the U.S., may reach 85% reuse of non-hazardous materials. The early adopters of deconstruction have made significant strides in the last few years. Many new pieces of equipment have been developed to simplify deconstruction procedures and reach higher yields of usable materials, making deconstruction increasingly feasible and more cost-effective compared to conventional demolition.

Reuse through deconstruction is important because it puts materials back into the market thus reducing energy use and pollution of air, land, and water to extract new materials from the environment. Deconstruction can create new jobs and new revenue streams for creative companies, translating to new tax dollars to support local efforts toward making a city sustainable.

CEDA staff, with assistance from PWA staff, is currently engaged in a feasibility study regarding the deconstruction and recovery of materials from the conversion of the Oakland Army

Base, in cooperation with the Oakland Base Reuse Authority. It is estimated that each square foot of building on the base could generate 25 pounds of demolition debris. Due to contamination, mainly wood with lead-based paint, most of this debris would end up in landfill if standard demolition techniques were applied. Deconstruction could lead to recovery of over 35,000 tons of construction materials, that would otherwise be landfilled, and put several hundred thousand dollars worth of construction material inventory back into the market place. This will create new jobs and new revenues through associated sales taxes, improve the value of the property to potential developers, and substantially reduce the cost of preparing the site for construction. Importantly, deconstruction activities on the Army Base could provide useful information and experience applicable to private sector building tear-downs.

#### Recyclable Commodities and Operators

Markets for materials recovered from C&D recycling and deconstruction are most often local. Most C&D materials are of low value and costly to transport, so distant markets are usually not feasible alternatives to landfill disposal. In both the long and short term, C&D market development is dependent upon City land use policy that allows local industrial C&D material recovery operations. The City can stimulate C&D market growth by helping create joint ventures that support clustered material recovery areas, in order to minimize the environmental impact of these operations on local communities.

Staff outreach and support are needed to draw C&D businesses into Oakland and to retain them. Of critical interest are businesses, such as Specialty Crushing, that grind asphalt and concrete into feedstock for new paving materials. Staff will also continue to target wallboard recycling businesses, businesses producing value added wood products made from recovered demolition or deconstruction lumber, and mixed material C&D recycling center operators.

#### Recommendations

- Complete deconstruction feasibility study for Oakland Army Base and provide ongoing technical assistance to maximize solid waste diversion during site preparation and development (CEDA lead)
- Continue exploration of markets for specialty C&D recyclable materials (CEDA lead)
- Pursue site alternatives for C&D recyclers that minimize environmental impacts (CEDA lead)

*C&D Market Development Estimated Additional Diversion: 1-2%*

#### **Medium and Small Business Recycling – Outreach and Technical Assistance**

The City's Small Business Recycling Program is a service provided by WMAC and CWS as part of the residential recycling agreements. Businesses that are eligible for the Small Business Recycling Program are defined as those that (a) use can/cart service for solid waste or (b) share bin service for solid waste with other small businesses or (c) generate an amount of recyclables up to 2-96 gallon containers per week or up to 1-96 gallon container and one yard of corrugated cardboard.

Staff proposes to increase participation in the Small Business Recycling Program through waste reduction and recycling technical assistance services for Oakland's business sector. This work will include encouraging, educating, and assisting eligible businesses in subscribing to the City's Small Business Recycling Program, organics recycling service and general commercial recycling services provided by independent recycling companies. A determination will be made for the best fit of recycling services given the options available for a particular Oakland business, which may include both independent recycling companies and the companies that are contracted to provide Small Business Recycling service.

The work includes client identification, marketing waste reduction assistance services and soliciting interest in the program, development of baseline waste generation and recycling data, on-site facility assessments, providing best practices recommendations and reports, implementation assistance, and data tracking. The work plan will include the development of printed information and outreach products to accompany the technical assistance activities.

Concurrently, staff will develop of targeted outreach for commercial waste reduction and recycling to support the technical assistance efforts with specific "how-to" products and promote broader waste reduction concepts to the full spectrum of Oakland business and industry.

#### Recommendations

- Begin waste reduction and recycling technical assistance to small businesses by June 2006
- Implement and sustain an outreach program targeting commercial waste reduction using Import Mitigation Funding

*Business Outreach and Technical Assistance Estimated Additional Diversion: 1-3%*

#### **StopWaste Partnership Collaboration**

StopWaste Partnership (SWP) is a program of StopWaste.Org that provides free, technical assistance to businesses and public agencies in Alameda County to help improve environmental performance while reducing costs. The program is sponsored by the Alameda County Waste Management Authority and Source Reduction and Recycling Board, along with East Bay Municipal Utility District, Pacific Gas & Electric, and Economic Development Alliance for Business. SWP focuses on businesses with 50 employees or more, providing expert support and funding to prevent waste, conserve water and energy, and use all resources more efficiently.

Oakland businesses and agencies that have won StopWaste Recognition Awards include: Peerless Coffee, The Oakland Zoo, Oakland Hilton Hotel, Yoshi's, Society of St. Vincent de Paul, East Bay Regional Parks District-Oakland Administrative Offices, Oakland International Airport, and United States Postal Service-Oakland District. Over 100 Oakland businesses are active participants in the SWP.

Many more Oakland businesses are eligible to participate in the Stop Waste Partnership, and many current participants are languishing in a pre-implementation phase. The opportunities for the City of Oakland to support and increase participation in SWP include referral of businesses

contacted through technical assistance contract activity, and follow up by City staff with businesses that have received technical assistance but have not implemented recommended environmental measures.

Last, staff will explore how to support other SWP initiatives including the development and testing of a Sustainable Business Rating System, which could feature Oakland businesses, and recycling at public venues, which is newly required by AB2176.

#### Recommendations

- Refer eligible businesses contacted by small business technical assistance to SWP
- Contact SWP participants that have not implemented recommended environmental measures to encourage full participation
- Support development of Sustainable Business Rating System
- Coordinate documentation and promotion of recycling at public venues, per AB2176

*StopWaste Partnership Collaboration Estimated Additional Diversion: 1-2%*

#### **Alameda County Green Business Program Promotion**

The Alameda County Green Business Program promotes environmentally responsible business practices, through a certification program that focuses on small and medium sized businesses. The Green Business Program conducts on-site compliance assistance, coordinates inspections and certifies businesses as “green,” in cooperation with local government agencies and utilities. Entities seeking Green Business certification must comply with all environmental laws and meet specific standards in energy and water efficiency, pollution prevention, and solid waste reduction.

The Green Business Program promotes certified businesses and solicits new businesses to be certified through publication of a Green Business Directory, community event tabling, and a web site that highlights all certified Green Businesses. Oakland Green Businesses are featured on the Public Works Recycling website.

Staff recommends that that commercial solid waste diversion be increased by enrolling more businesses into the Green Business program, which requires recycling as a condition of certification. Staff proposes to solicit new businesses into the program in two ways: as part of the small business waste reduction and recycling technical assistance initiative, and through targeted outreach to specific business types such as automotive repair and restaurants.

#### Recommendations

- Implement project for targeted solicitation and certification of green businesses using Import Mitigation Funding
- Refer businesses to the program through the business technical assistance initiative

*Green Business Program Promotion Estimated Additional Diversion: 1%*



### **Commercial Organics Diversion**

Source separated commercial organics are defined as recyclable by the Oakland Municipal Code and therefore not subject to the City's Franchise Agreement with WMAC. Commercial food scraps services provided solely by open market competition is a situation unique to Oakland in the Bay Area. Presently, open-market competition for commercial organics has succeeded in diverting about 11,000 tons from the landfill annually, with little assistance or intervention from the City. However, the open market system leaves some types of food scraps generating businesses underserved, in particular, small businesses, ones in remote locations, and even some large businesses that have multiple shifts or complex operations.

Staff proposes to increase participation in the food scraps collection program through assistance to both the service providers and to food scrap generating businesses. Measures will include identifying obstacles to participation for the businesses, and obstacles to retaining and increasing participation from the service provider point of view. This will help staff develop the types of outreach materials and technical assistance methods that will be the most effective. Such assistance could include production of outreach materials usable by any service provider, and provision of technical assistance to participating businesses in the form of training and account trouble-shooting.

The City of Oakland may be able to increase solid waste diversion by establishing exclusive or non-exclusive franchises for commercial organics collection, which could allow for greater City influence in the provision of service to all interested businesses citywide. Staff proposes to continue monitoring the activities of other Bay Area communities where commercial food scraps services are provided by a variety of exclusive and non-exclusive franchised operators, to aide in the evaluation of franchising for Oakland.

#### Recommendations

- Survey current and former participants in organics collection program to identify obstacles to and incentives for participation, to inform development of technical assistance and outreach products
- Work with service providers to identify useful methods/means of City assistance, including, but not limited to, printed brochures and technical assistance specific to commercial food scraps; and implement feasible programs
- Refer eligible businesses to service providers through business technical assistance contract
- Monitor ongoing activities in other Bay Area communities where commercial food scraps services are provided to identify and analyze emerging trends in franchising

*Commercial Organics Diversion Estimated Additional Diversion: 1%*

## **IV. ZERO WASTE PROGRAMS**

Zero Waste is a concept growing in importance as communities like Oakland have implemented successful recycling and composting programs without fully addressing the reduce and reuse

components of the waste management hierarchy. Focus on waste diversion programs has distracted decision makers and planners from the reality of ever increasing waste, as reported gains in waste diversion are not matched by similar declines in landfilling. For example, despite California's aggressive waste diversion mandate, both per capita and total disposal have increased since enactment of AB939 over 15 years ago. Zero Waste seeks to reemphasize the importance of "upstream" concepts like reuse and waste reduction, while supporting the existing "downstream" infrastructure of recycling and composting.

In the narrowest terms, Zero Waste is simply the goal of eliminating disposal of solid waste at landfills and incinerators. More broadly, Zero Waste addresses all outputs to land, water, or air. Achieving Zero Waste means all materials that are currently considered waste and end up in landfills or incinerators, are instead returned "upstream" as feedstock for new products or services, or decompose so they can be reintegrated into nature without negative environmental impacts

According to the Zero Waste philosophy, the waste generated by society today indicates inefficiencies in product design, materials selection, and manufacturing and service delivery systems. The inefficiencies equate to lost capital and revenue at the company, community, state and regional levels. Tremendous investment of resources is required to extract raw materials, process them, turn them into manufactured products, and then deliver them to the end user. These investments often are lost, in very short order, as the imbedded energy and product materials are used and then buried or incinerated. In addition, the continual need to extract virgin and toxic minerals, metals and fossil fuels from the earth's surface is followed by discharge of those same materials in new, often more toxic forms, into the same environment that we rely on to provide basic ecological services (e.g. clean air and water).

Preventing, rather than managing, waste is the basis for Zero Waste. This requires moving from the existing dominant focus on "end of the pipeline" waste management activities/programs, to a new focus on preventing waste as it is currently defined, redesigning the waste management infrastructure, and generating income and jobs through "waste-based" economic development. Zero waste policies stimulate the design and production of more environmentally sustainable products and services that use naturally occurring materials and consequently will be more easily disassembled, reused or recycled, and naturally break down and be re-assimilated into nature when all useful value is lost. This can reduce the management and clean-up costs of waste facilities, landfills and incinerators, mostly borne by taxpayers. This can also reduce negative health effects associated with the manufacture and use of certain products, also mostly borne at the local level, and improve the local quality of life.

A strategic plan for implementing a Zero Waste policy may include:

- Putting Zero Waste principles into practice in all City government operations and activities, in alignment with the City Council goal to "Develop a Sustainable City"
- Implementing an Environmentally Preferable Purchasing policy that includes:
  - Extended Producer Responsibility for products such as carpeting/flooring, electronic equipment, batteries, office equipment, furniture, machinery, vehicles

- Recycled content standards for products such as building, road repair, and landscaping materials;
- Assuming a leadership role and partnering with other Zero Waste cities and local, regional and international Zero Waste and sustainability advocates, to lobby for higher order, ‘upstream’ materials management and system redesign strategies, particularly at the state level;
- Implementing mandatory recycling and/or product-specific disposal bans;
- Implementing product-specific use bans;
- Adding Green Building standards to the City building code; and
- Developing a City policy regarding thermal conversion of mixed solid waste that ensures waste generation is not promoted because it becomes a feedstock ‘commodity;’
- Recruiting new and supporting existing businesses that use discarded materials as feedstock for value added production, provide “green collar” jobs, and drive local economic development.

### ***Zero Waste Policy***

Governments set zero waste goals to conserve valuable material resources; to keep water, land, and air unpolluted by the leachate, toxic plumes, and gases that waste inevitably generates; to expand industrial and commercial productivity through upgrading, repairing, remanufacturing, reprocessing, and trading in materials streams that have been conserved by reuse, recycling, and composting businesses; and to enhance community health, wealth, livelihoods, and general well being.

The scope and breadth of City of Oakland activities and operations provides multiple and varied opportunities for the City to lead by example in adopting policies and practices guided by a Zero Waste goal. Several California jurisdictions have adopted Zero Waste policies, including San Francisco City and County, Santa Cruz County, San Luis Obispo County, Del Norte County, City of Berkeley, and City of Palo Alto. Outside California, Seattle, Washington; Boulder, Colorado; Toronto, Canada; Canberra, Australia; State of New South Wales, Australia; and 45% of New Zealand’s local government Councils have adopted Zero Waste Policies.

### ***Recommendations***

- Consider adoption of “Zero Waste” resolution with a goal of zero waste to landfills and incinerators by 2020 and direct staff to prepare a Zero Waste Strategic plan for the City of Oakland to achieve the Zero Waste Goal

*Zero Waste Policy Estimated Additional Diversion: Unknown*

### **Environmentally Preferable Purchasing Policy**

Environmentally preferable purchasing (EPP) is the procurement of products and services for which the environmental impacts have been considered and found to be less damaging to the *environment and human health than competing products and services serving the same purposes*. The overall goal of an EPP policy is to ensure that environmental and human health are sustained and improved by including environmental and health attribute considerations in the selection of products and services, along with such traditional buying factors as performance, quality,

service, price, and local availability. Several Bay Area local governments including Berkeley, San Leandro, San Jose, and San Francisco have adopted EPP policies.

The environmental and health attributes that make a product preferable to purchase over others may include that it is bio-based, dioxin-free, durable, energy efficient, made from renewable and or recycled materials, and that it conserves water, minimizes waste, reduces/prevents green house gas emissions and other pollution. The comparisons may consider raw materials, acquisition, production, manufacturing, packaging, distribution, reuse, operation, maintenance, or disposal of the product or service.

The environmental and health benefits include:

- establishing healthier work environments
- reducing hazardous materials on-site and in operations and maintenance
- reducing carbon dioxide emissions that contribute to global climate change
- conserving natural resources

Economic benefits include:

- reducing costs related to initial purchase, disposal, use, maintenance and cleanup
- increasing employee retention rate and decreasing City's liability by improving safety standards
- stimulating markets for environmental preferable products and materials

The City has several existing environmental policies that would fall under the umbrella of an EPP policy, including:

- Recycled-Content Purchasing Policy
- Integrated Pest Management Policy
- Dioxin Policy
- Alternative Fuel Resolution
- Green Building Ordinance

With the exception of the recent Green Building Policy, all of the City's existing environmental policies consider only a single product attribute, such as amount of recycled content, percent of reduction in pesticide, or PVC use.

An EPP policy would establish a citywide directive for developing and implementing an EPP program that focuses on reducing the environmental impacts and health hazards associated with the acquisition and purchases of products, services, and equipment leases. The policy also would focus on full-cost accounting to promote reduction in maintenance and operation costs. Last, the policy would support markets for environmentally preferable products, including recycled-content products, by requiring that all city departments consider the applicable environmental and health attributes when making purchasing decisions.

### Recommendations

- Establish a interdepartmental steering committee to oversee development of an EPP Policy, and return to City Council for approval of EPP Policy and Implementation Plan by October 2006

*EPP Policy Estimated Additional Diversion: Unknown*

### **Disposal Bans**

State and local governments in the United States and Europe have used disposal bans to force residents and businesses to recycle and reduce waste with varying success. Landfill bans can only be effective if enacted statewide and enforced, and must include prohibition of the export of solid waste to other states, which is not always possible. In California, for example, televisions may not be landfilled, a restriction enacted through administrative regulation by the California Department of Toxic Substances Control. Local governments are empowered to prohibit residents and businesses from disposing of banned materials in the municipal solid waste, and to prohibit the franchised solid waste hauler from collecting such banned materials. Seattle (WA) offers the most recent example of successful disposal bans, where residents are prohibited from disposing of materials included in the recycling program, and businesses are prohibited from disposing of cardboard.

The mantra for success is “no ban without a plan;” any ban should include plans for providing the recycling services needed to afford alternatives to disposal, and for meaningful enforcement of the ban. In Seattle, the garbage hauler is obligated to decline residential garbage that obviously contains recyclables, and city code enforcement officers may issue citations to non-compliant businesses. In both cases, the City of Seattle guarantees that no-cost recycling collection services are available to the customer so that disposal is not the only choice.

For Oakland’s commercial sector, low-cost recycling services may not be readily available in every case, and a ban on disposal of recyclable materials would not necessarily provide adequate market stimulation to create these services. As discussed in other segments of this plan, commercial recycling services are provided on an open market basis; any Oakland business may make formal or informal arrangements with a company or person to collect recyclables for free or for a fee. The City supports small business recycling by including services to small businesses in neighborhood commercial strips in the residential recycling contracts. These businesses may enroll with their local service provider, either CWS or WMAC, for recycling services according to fees set by the City. Businesses that do not fit into the definition provided in the two recycling agreements do not have a guaranteed recycling service provider at this time. If Council elects to move ahead with banning commercial disposal of recyclables, the City would need to plug this potential gap in commercial services.

Should disposal bans appear to be necessary for reaching the 75% waste reduction goal, and to be feasible, implementation of any ban would likely not begin until 2009. In 2009, StopWaste.Org will have completed a new waste characterization study (WCS) providing information on the sources and types of wastes generated in Oakland.

### Recommendations

- Research and monitor outcomes in communities that have implemented disposal bans
- Evaluate need and effectiveness of selected bans informed by Waste Characterization Study data available in 2009

*Disposal Bans Estimated Additional Diversion: 3-6%*

### **Product Use Bans**

Product use bans may function to improve existing or new recycling programs, and may decrease the use of disposable, non-recyclable products. These two attributes are sometimes secondary to the main goal of the product ban, which might be reduction of toxic emissions or reduction of litter, especially in waterways.

One local example of a product use ban is Berkeley's ban on expanded polystyrene (EPS), enacted nearly 20 years ago with the primary goal of curtailing use of ozone-depleting blowing agents, and secondarily to reduce litter and encourage recycling. Though the targeted harmful blowing agents are no longer in use, the significance of the secondary benefits has increased with renewed concern for the incidence of wind-blown litter entering the waterways and being consumed by wildlife, findings of styrene in human fat tissue, and the inclusion of compostable substitute containers in the commercial food scraps program.

In another example of an initiative to reduce environmental problems associated with a specific product, San Francisco recently came to an agreement with local supermarkets to reduce the number of grocery bags by 10,000,000 by the end of 2006. Though not strictly a ban, this agreement came about after consideration of a fee per bag as a disincentive to disposable bag use, in an effort to address solid waste, litter, and greenhouse gas emissions.

### Recommendations

- Monitor product use ban developments in other jurisdictions for applicability in Oakland

Product Use Bans Estimated Additional Diversion: <1%

## **Recycling and Solid Waste Outreach Activities**

### September 2004 – December 2005

#### New Weekly Pick-Up Residential Recycling Program Implementation

- Two garbage bill insert announcements
- Direct mail post card announcement
- Direct mail food scraps shape mailer
- Comprehensive recycling guide distributed with carts/pails
- Cart hanger guides distributed to apartment buildings newly provided cart service
- Slides aired on KTOP, and shown on Oakland movie screens
- 30-second animated PSA aired on KTOP and other Oakland cable stations, and translated into Vietnamese, Chinese, and Spanish
- Advertising: 50 bus benches, 50 AC Transit bus sides, 50 AC Transit bus backs, 75 AC Transit bus shelters, 25 billboards
- Posters distributed to community bulletin boards, community centers, senior centers, and other city buildings
- 26 community meeting presentations by staff
- Recycling staff tabled nine public events

#### Other/General

- Sponsored Bay Area Recycling Outreach Coalition junk mail reduction campaign
- Sponsored printing of Shop Oakland bags, imprinted with Oakland Recycles logo, web site, and phone number
- Quarterly garbage bill inserts: home composting, household hazardous waste, switch to a smaller cart & save, bay friendly gardening
- Bulky Waste Pickup annual announcement and mid-year reminder notice

### January 2006 – December 2006

- Holiday Tree-Recycling bill inserts
- Three additional quarterly garbage bill inserts, subjects to be determined
- SFD comprehensive recycling guide (revised format)
- New resident brochure (telephone directory distribution)
- MFD recycling packet (multiple products)
- Small Business Recycling Program (multiple products)
- Commercial waste reduction and recycling packet (multiple products)
- Residential food scraps – product to be determined (incl. StopWaste.Org regional campaign)
- Used oil recycling (StopWaste.Org regional campaign)
- America Recycles Day promotion
- Sponsor Shop Oakland
- Sponsor Bay Area Recycling Outreach Coalition junk mail reduction campaign
- Event tabling
- Community presentations on request

2006 FEB 15 PM 4:07

Approved as to Form and Legality

*Richard King*  
Oakland City Attorney's Office

## OAKLAND CITY COUNCIL

Resolution No. \_\_\_\_\_ C.M.S.

Introduced by Councilmember \_\_\_\_\_

### **RESOLUTION ADOPTING A STRATEGIC PLAN FOR REDUCTION AND RECYCLING OF RESIDENTIAL, COMMERCIAL, AND INDUSTRIAL SOLID WASTES TO ACHIEVE THE COUNCIL GOAL OF 75% SOLID WASTE DIVERSION IN 2010**

**WHEREAS**, the California Integrated Waste Management Act of 1989 mandated that every city and county in the state reduce the quantity of solid waste disposed within their jurisdictions and disposed in landfills by 50% by 2000; and

**WHEREAS**, in 1990 the City Council adopted Resolution #66253 C.M.S establishing solid waste reduction goals, including returning discarded materials to the local economy through reuse and recycling; applying the waste management hierarchy in priority order (reduce, reuse, recycle and compost) to the maximum extent; and promoting recycling market development; and

**WHEREAS**, the Alameda County Waste Reduction and Recycling Initiative Charter Amendment (Measure D) enacted in 1990 established a countywide goal of 75% reduction of waste going to landfills and the Alameda County Source Reduction and Recycling Board established 2010 as the year the goal should be met; and

**WHEREAS**, in 1998 the City Council adopted the Sustainable Development Initiative (Resolution #74678 C.M.S), embracing the concept of meeting people's current economic, social, cultural, and environmental needs in ways that enhance the ability of future generations to meet their needs; and

**WHEREAS**, waste reduction, reuse, recycling, and composting reduce air and water pollution, save natural resources, protect habitat, and create "green-collar" jobs, supporting concepts of the Sustainable Development Initiative; and

**WHEREAS**, in 2000 Oakland surpassed the state's 50% landfill diversion mandate; and in 2002 the City Council adopted Resolution #77500 C.M.S. establishing the goal of 75% reduction of waste going to landfills by 2010 for the City of Oakland in alliance with the countywide 75% waste reduction goal; and



**WHEREAS**, Resolution #77500 C.M.S. directed the Public Works Agency, Environmental Services Division to prepare a plan identifying strategies to accomplish the goal and present those strategies to Council; and

**WHEREAS**, Oakland's FY 2005-07 Mayor and City Council Goals include: Develop A Sustainable City through maximizing socially and environmentally sustainable economic growth, including conserving natural resources; and

**WHEREAS**, in June 2005 Oakland Mayor Jerry Brown joined mayors of 50 of the world's largest and most visionary cities as an original signer of the United Nations World Environment Day Urban Environmental Accords, pledging that Oakland would implement 21 action steps toward sustainable cities including establishing a zero waste policy, implementing "user friendly" recycling and compost programs, and adopting a law to reduce use of disposable, toxic, and non-recyclable product category; now, therefore be it

**RESOLVED**, that the City Council hereby adopts a Strategic Plan for 75% solid waste diversion by 2010 that includes establishment of a zero waste policy and strategies.

IN COUNCIL, OAKLAND, CALIFORNIA, \_\_\_\_\_, 2006

**PASSED BY THE FOLLOWING VOTE:**

AYES - BRUNNER, KERNIGHAN, NADEL, QUAN, BROOKS, REID, CHANG, AND  
PRESIDENT DE LA FUENTE

NOES -

ABSENT -

ABSTENTION -

ATTEST:

\_\_\_\_\_  
LATONDA SIMMONS  
City Clerk and Clerk of the Council of  
the City of Oakland, California