Alameda County
Integrated Waste Management Plan

COUNTYWIDE ELEMENT

Countywide Siting Element
Countywide Summary Plan

Alameda County Waste Management Authority
Adopted: February 26, 2003

Alameda County Waste Management Authority

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Oakland	City Councilmember Danny Wan
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I. INTRODUCTION

This Countywide Element is a road map to use in approaching Alameda County's waste management challenges. It is a primary tool for designing waste reduction programs that are countywide in scope and the only means of addressing the county's landfill needs in a comprehensive way. Further, in this County, waste reduction and disposal facilities that require Solid Waste Facility Permits must conform with the policies contained in this Element. The following discussion provides a background on the Element, its function and development.

This document has undergone a 5 year revision as of March, 2003.

THE ALAMEDA COUNTY WASTE MANAGEMENT AUTHORITY

This Countywide Element is prepared by the Authority. The Authority is an independent agency established in 1976 to provide waste management planning and programs in Alameda County. The Authority's mission is to achieve the most environmentally sound waste management program for the people of Alameda County. It has served as a model for similar organizations nationwide. Its 17-member governing board includes representatives of the County Board of Supervisors, all fourteen cities in the county, and two sanitary districts that primarily serve unincorporated areas.

The Authority operates under a "Joint Exercise of Powers Agreement for Waste Management" [JPA] adopted by the member agencies. (Appendix C provides an acronym glossary and glossary of waste management terms.) This Agreement provides, in part, that the Authority is:

> " ...responsible for and capable of preparation, adoption, revision, amendment, administration, policy-making, budgeting, planning, implementation and enforcement of the Alameda County Integrated Waste Management Plan."

Thus, the member agencies have delegated to the Authority the responsibility to develop this Countywide Element of the Alameda County Integrated Waste Management Plan [CoIWMP] and also to assist the member agencies to develop other elements of the CoIWMP that address local programs and planning.

Prior to preparing this Countywide Element, the Authority produced a county- wide waste characterization analysis and funded preparation of the SRREs and HHWEs for 15 member agencies. The Authority also provided a model NDFE for use by each agency. However, SRREs, HHWEs and NDFEs are adopted by the local governing board or city council, not by the Authority. By contrast, pursuant to the Authority JPA, the Countywide Element is prepared and approved by the Authority, and then circulated to the member agencies for review and comment.

A MANDATE TO REDUCE WASTE

The Countywide Element is mandated by State law. The California Integrated Waste Management Act of 1989 [AB 939] dramatically reorganized the State's solid waste planning. The Act's critical components are:

- Establishes a "hierarchy" of waste management practices in order of priority:
  - Source Reduction (avoiding the creation of waste)
  - Recycling and Composting
  - Environmentally Safe Transformation or Land Disposal

- Requires each city and county to divert from landfills 25% of its waste by 1995 and 50% by the year 2000. In meeting these goals, jurisdictions receive "credit" for pre-existing diversion. The goals are also adjusted to account for population and economic changes.

- Requires each county to adopt an Integrated Waste Management Plan [CoIWMP]. The CoIWMP is to (a) describe local waste diversion and disposal conditions and (b) lay out realistic programs to achieve the waste diversion goals noted above.

  A CoIWMP consists of these "elements":

  - A Source Reduction and Recycling Element [SRRE] for each city and unincorporated area that details local waste reduction programs;
  - A Household Hazardous Waste Element [HHWE] for each city and unincorporated area that details local programs to reduce this waste;
  - A Non-Disposal Facility Element [NDFE] for each city and unincorporated area that locates and describes certain waste diversion facilities;
  - A Countywide Integration Summary Plan that describes countywide programs and recaps the local SRREs, HHWEs and NDFEs; and
  - A Countywide Siting Element that describes landfill disposal needs and programs.

  For the Alameda County CoIWMP, the Summary Plan and Siting Element are combined and referred to collectively as the "Countywide Element."

ORGANIZATION OF THE COUNTYWIDE ELEMENT

The Countywide Element consists of six main sections, plus appendices that describe the county demographically, and several glossaries that describe and define waste management terms. While the content of the Element meets State regulations, its organization departs from the standard format to better present the complexities of waste management in this county. For this reason, an index is provided that allows an easy comparison between the Element and applicable regulations.

I. Introduction, provides an overview of the legal mandate and requirements of AB 939, previous planning efforts, and the role of the Alameda County Waste Management Authority.

II. Overview of Existing System, describes the county's solid waste infrastructure and administration, and identifies existing waste collection, removal, transfer, disposal and diversion facilities.

III. Countywide Needs, details existing and projected waste disposal and waste reduction needs and goals.

IV. Issues, provides an overview of the issues facing Alameda County in managing its waste and defines these in terms of environmental objectives.

V. Policies and Procedures, establishes goals, policies, objectives and criteria to guide decision-making and administration of solid waste management facilities and programs.

VI. Siting Criteria and Plan Conformance Procedures, includes siting criteria and conformance procedures to determine whether proposed facilities are necessary and consistent with the Countywide Element.

VII. Waste Management Programs, provides summary of local programs identified in locally adopted SRREs and countywide programs that supplement and reinforce local programs.

Appendices, provide an index of the Countywide Element as it relates to State regulations, provide background information on the county's geographic and demographic conditions, and key relevant background documents.

PREVIOUS PLANNING EFFORTS

Once adopted, the revised CoIWMP will update the CoIWMP adopted by the Waste Management Authority in 1997 and subsequently amended four times.

II. THE EXISTING SOLID WASTE MANAGEMENT SYSTEM

The County's solid waste management "system" includes facilities and programs to collect and dispose of solid waste and to divert materials from solid waste through source reduction, reuse, recycling and composting. It also has a set of participants: the public, non-profit groups, private companies, and public agencies. Section II catalogues these system parts, as a step in identifying the County's needs.

THE PARTICIPANTS

Government Agencies

Government first became involved in waste management due to public concerns with the nuisances and health effects associated with garbage collection and dumping. Initially, public agencies generally chose to regulate private firms, though some agencies did operate collection and disposal facilities. However, as conditions changed, notably the loss of landfill space, other trends appeared:

- Public agencies started participating in long-term planning and program development, treating garbage as a "system management" problem and considering alternatives to landfilling.
- As it became clear that the scope of problems extended beyond city boundaries, county, regional, state and federal agencies began to participate in planning, regulation and program development.
- Public agencies began to see connections between waste management and other goals such as job development, resource conservation and methods of production.

All of these trends have been evident in Alameda County.

Local Government Agencies in Alameda County

Local agencies in Alameda County that are most active in waste management include the Authority, its member jurisdictions, the Source Reduction and Recycling Board and the County Department of Environmental Health. Their roles in CoIWMP implementation and administration are shown in Table 2-1 and described below. Other bodies, such as park districts and wastewater treatment agencies, are often involved in waste management as *generators.* Some of these public agencies are increasingly taking responsibility for managing and preventing waste on-site.

1. The Alameda County Waste Management Authority & Recycling Board

The Authority is an independent agency, established in 1976 to provide waste management planning and programs. In 1990, the Source Reduction and Recycling Board was established by an act of the voters, and integrated into the existing Authority. There are two separate boards, the Waste Management Authority Board and the Recycling Board, sharing the same staff and with overlap on the boards.

The WMA's 17-member board of elected officials includes representatives from each of the fourteen city councils, the County Board of Supervisors and two sanitary district boards that mainly serve unincorporated areas. The Authority operates under a "Joint Exercise of Powers Agreement [JPA] for Waste Management" adopted by the member agencies. Initially, the JPA gave the Authority responsibility for the County Solid Waste Management Plan [CoSWMP]. Later, it added the County Hazardous Waste Management Plan [CoHWMP] and, in 1990, the County Integrated Waste Management Plan [CoIWMP]. The Authority's role also grew to include program development as well as planning.

Before 1990, the Alameda County Planning Department provided staffing on an "as-needed" basis. In 1990, the Authority established an independent staff that now has –nearly 30 positions.

1a. Authority Planning Functions

The Authority prepares several countywide plans for adoption by the member agencies. Each plan (a) identifies desired countywide programs and facilities and (b) contains countywide policies, with which facilities or programs must comply:

- County Hazardous Waste Management Plan
- Countywide Integrated Waste Management Plan

1b. Authority Program Development Functions

The Authority implements the following program components:

- Enforces CoIWMP policies through a Plan Conformance Process for every facility that requires a Solid Waste Facility Permit.
- Maintains Authority owned property in the Altamont Hills.
- Implements Information and Public Education Programs.

- Implements the Authority Business Assistance Program (jointly with the Recycling Board, with the Recycling Board implementing waste reduction related business activities).
- Implements the Schools education program.
- Implements facility development programs, such as the Organics Processing Development Program and the MRF Capacity expansion program.
- Implements the Green building and construction and demolition debris recovery program.
- Provides funding and policy oversight for the County Household Hazardous Waste Collection Program.

The Authority will also fund additional Countywide programs as deemed necessary by the Authority to achieve a 75% diversion goal. Source reduction aspects of Agency programs are funded by the Source Reduction and Recycling Board.

1c. Source Reduction & Recycling Board Planning and Program functions

In 1990, Alameda County voters approved a County Charter initiative amendment known as Measure D. Measure D created the Alameda County Recycling Board, which has been established as a subsidiary body within the Authority. The 11-member Board is jointly appointed by the Authority [5 members] and the Board of Supervisors [6 members] and operates pursuant to a Memorandum of Understanding [MOU] with the Authority. The Authority provides staffing.

The Recycling Board's main responsibilities are to prepare a County Recycling Plan and provide support for waste reduction. The Recycling Board also manages programs or oversees requirements mandated by Measure D including:

- Countywide Source Reduction Program (including the Home Composting Program and on-site and off-site composting programs).
- Countywide Recycled Product Market Development Program
- Residential Recycling Programs [curbside pickup]
- Commercial Recycling Programs
- Recycled Product Procurement Preferences
- Support progressive garbage collection rate structures
- Support product disposal fees

Additionally, the Recycling Board funds source reduction aspects of programs listed under 1b. The Recycling Board will also fund additional Countywide programs, consistent with Measure D requirements, deemed necessary by the Recycling Board to achieve a 75% and beyond diversion rate.

Authority Board Budget and Revenue Sources

The Authority is funded mainly by user fees assessed on a per ton basis at landfills. There is also revenue from such miscellaneous sources as leases of Authority property for wind power, cattle grazing and communications towers as well as interest earned on accounts. The Authority imposes no assessments on member agencies and imposes no property, sales or income taxes. The Authority's user fees include:

- **AB 939 Solid Waste Management Fee**, $1.50 per ton on all wastes. These revenues are expended on countywide and local waste reduction programs.
- **Import Mitigation Fees,** presently $4.68 per ton on most San Francisco wastes and $4.53 per ton standardized fee on wastes from other sources. These revenues are to be used for waste reduction programs to help extend Alameda County landfill life, or for acquiring reserve landfill capacity for Alameda County residents.
- **Property Revenues**, from the leasing of grazing, wind power and communication tower rights on the Authority' publicly owned 1,600 acres in the Altamont Hills purchased with Import Mitigation Fee revenue.

The Authority also levies pursuant to AB 939, a Household Hazardous Waste Management Fee of $2.15 per ton disposed. This fund is is provided directly to the County Department of Environmental Health to develop and operate the county household hazardous waste collection and management program.

County Recycling Board Budget and Revenue Sources

The Recycling Board collects a $6.95 per ton landfill disposal feel imposed by Measure D to support waste reduction efforts. This fund is apportioned between the cities and the Recycling Board, in accordance with a formula contained in Measure D. The Authority receives a small amount to cover administrative costs (not to exceed 3% of fee revenues). The distribution of Recycling Board fund is as follows: 50% to cities for recycling programs; 15% discretionary (to supplement the other categories and for administration); 10% grants to non-profits; 10% source reduction; 10% market development; and 5% recycling product preference. The Recycling Board annually requests cost-of-living increases from the County Board of Supervisors.

TABLE 2 - 1

CoIWMP IMPLEMENTATION AND ADMINISTRATION

FUNCTION	AGENCY	ROLE
PLANNING	o ACWMA	responsible for the preparation, administration, policy-making, planning, and implementation of the CoIWMP Countywide Element
	o Cities	responsible for the preparation, planning, administration, policy-making, and implementation of the SRREs, HHWEs, and NDFEs
BUDGETING	o ACWMA	refer to Section 6 for a description of the Authority's funding mechanisms
	o Cities	responsible for financing local programs indicated in the SRREs
ENFORCEMENT	o LEA	The Authority has designated the Alameda County Department of Environmental Health as the LEA for most of Alameda County. The California Integrated Waste Management Board has assumed LEA responsibility for the City of Berkeley.
PROGRAM IMPLEMENTATION	o ACWMA	responsible for countywide programs as indicated in Section 6
	o Cities	responsible for local programs as indicated in each jurisdiction's SRRE
	o Recycling Board	provides funding to local jurisdictions; supports countywide programs
MAINTENANCE, REVISION, AND INTEGRATION	o ACWMA	refer to Section 5 for a discussion on Plan adoption, Plan Conformance and amendment processes. refer to Section 5 for discussion on Integration

2. Local Enforcement Agencies [LEAs]

LEAs, usually city or county public works or public health departments, are responsible for enforcing CIWMB regulations that apply to certain types of solid waste facilities. The key enforcement vehicle is the Solid Waste Facilities Permit [SWFP], which is prepared by the LEA and approved by the CIWMB. In addition to matters that are within the jurisdiction of the CIWMB, LEAs may incorporate requirements of other permits, such as a local land use permit, Regional Water Quality Control Board Waste Discharge Requirements, and the CoSWMP or CoIWMP policies and facility conditions. The LEA enforces the SWFP through site inspections, monitoring and a permit violation and correction process. The CIWMB monitors the LEA performance for compliance with State regulations.

- **Alameda County Department of Environmental Health**

  ROLE: Responsible for enforcing solid waste management laws and regulations in the County (with the exception of the City of Berkeley) and for reviewing and issuing Solid Waste Facilities Permits for facilities within the county (except for the City of Berkeley)

  Under separate divisions, the County Department of Environmental Health also oversees the enforcement of hazardous waste laws and regulations in the county (with the exception of the City of Berkeley) and the operation of a countywide Household Hazardous Waste program .

- **California Integrated Waste Management Board**

  ROLE: Responsible for enforcing solid waste management laws and regulations within the City of Berkeley and for reviewing and issuing Solid Waste Facilities Permits for projects within the City of Berkeley.

  The State Department of Health Services oversees the enforcement of hazardous waste laws and regulations in Berkeley.

LEA functions are funded through a separate per ton fee imposed at each solid waste facility.

3. The Authority Member Agencies

Every city in the county, two sanitary districts that primarily serve unincorporated areas, and the County of Alameda, are Authority members pursuant to their adoption of the Authority's Joint Powers Agreement.

Each city, and the County for the unincorporated area, is responsible under the State Integrated Waste Management Act for planning and implementing waste management and related programs at the local level. Pursuant to their land use powers, each agency also performs environmental reviews

and issues land use permits for solid waste projects. Also, each city is responsible for providing solid waste collection and disposal services. In Alameda County, most jurisdictions have franchise agreements or contracts with private haulers and landfill operators.

The two sanitary districts that are members of the Authority are responsible for administering franchise agreements for solid waste collection and disposal. Both have also assumed responsibility for implementing AB 939 waste reduction programs in their jurisdictions. Their service areas are primarily in the unincorporated County. Although the sanitary districts participate fully as Authority members, they do not have local land use powers.

Larger agencies in Alameda County often have a separate department/division that specifically deals with solid waste issues and programs, while smaller ones manage programs within other administrative structures. Table 2-2 provides a list of the member agencies and the departments responsible for solid waste management and programs for each.

TABLE 2 - 2

DEPARTMENTS RESPONSIBLE FOR SOLID WASTE PROGRAMS

City of Alameda	Public Works Department Waste Management & Recycling Program
City of Albany	Community Development Department – Environmental Resources Assistant
City of Berkeley	Public Works Department - Solid Waste Management Division
City of Dublin	City Manager's Office
City of Emeryville	Public Works Department
City of Fremont	Community Development Department Department of Public Works Integrated Waste Management Division
City of Hayward	Department of Public Works
City of Livermore	Public Services Department
City of Newark	Community Development Department
City of Oakland	Office of Public Works Environmental Services Division
City of Piedmont	Department of Public Works / Planning
City of Pleasanton	Office of the City Manager
City of San Leandro	Environmental Services Department
City of Union City	City Manager's Office
Alameda County	Planning Department & General Services Agency
Castro Valley Sanitary District	District Manager
Oro Loma Sanitary District	Solid Waste Department

4. Authority Advisory Bodies

The Authority seeks input on its planning and program activities from several advisory bodies. These are shown in Table 2-3. The Local Task Force is comprised of "citizen experts" in waste management and related fields. The Technical Advisory Committee is made up of member agency staff representatives. Both these bodies reviewed and commented on the CoIWMP Countywide Element update.

For a number of years, the Joint Refuse Rate Review Committee [JRRRC] existed as a way for the jurisdictions who contracted with Oakland Scavenger, and then through WMI to conduct shared rate reviews for refuse collection and disposal. This organization has become defunct and each jurisdiction now conducts their own rate reviews.

A similar entity was formed by the Tri-Cities of Fremont, Newark and Union City in the summer of 1994. The Tri-Cities Waste Disposal Authority was formed to negotiate disposal rates at the Tri-Cities landfill where all three cities currently contract for disposal of their wastes. This organization is still functioning.

The Authority also participates in the San Francisco Bay Area Hazardous Waste Management Capacity Allocation Committee. This group of elected officials from nine Bay Area counties has designed and adopted a formula for the geographic distribution of hazardous waste management facilities on a "fair share" basis.

TABLE 2 - 3

AUTHORITY ADVISORY BODIES

BOARD/COMMITTEE	MEMBERS	ROLE
LTF (Local Task Force)	Representatives of the solid waste industry, environmental organizations, general public, special districts, and affected governmental agencies; appointed by the Authority Board and confirmed by member jurisdictions; meets as necessary	Created pursuant to AB 939, this entity assists in the development of city and county Source Reduction and Recycling Elements (SRREs), Household Hazardous Waste Elements (HHWEs), and oversees the preparation of the Countywide Element
TAC (Technical Advisory Committee)	Staff from each member agency; meets monthly	Advisory to staff of the Authority on technical and other matters related to the coordination and conduct of Authority programs
Tri-Cities Waste Disposal Authority	Staff from the Tri-Cities that have contracts for disposal at the Tri-Cities Landfill	Negotiate disposal rates at the Tri-Cities Landfill
San Francisco Bay Area HWMCAC (Hazardous Waste Management Capacity Allocation Committee)	Representatives (elected officials) from each 9 bay area counties and representatives from one city from each member county	Develop a regional approach for providing hazardous waste management facility capacity in the region

5. Facility Permitting Agencies

The most common facility permitting agencies are shown in Table 2-4. The actual permits required for a given facility will depend on project-specific circumstances, particularly applicable environmental concerns. *All* proposed facilities require local land use approval by the city, or county for unincorporated areas, in which it is located. The Authority does not

complete approval of a proposed project until the local agency with land use authority has agreed to issue the land use permit.

The Authority does not issue a permit. Its role is to review proposed projects for conformance with the CoIWMP policies. It does this in connection with preparation of the draft Solid Waste Facilities Permit by the LEA and CIWMB.

6. Private Companies

Private firms have traditionally performed the bulk of solid waste activities in Alameda County, including waste diversion programs and waste collection and disposal. This is expected to continue. Details concerning the largest private facilities are provided later in Section 2. There are three national, publicly traded companies and two local, privately owned firms providing waste services in the county. The largest private operators providing *comprehensive* waste management services are:

- **Waste Management of Alameda County.** WMAC, [a subsidiary of Waste Management, Inc.- WMI]. WMAC was formerly Oakland Scavenger Company, and was bought by Waste Management in 1986. USA Waste bought the company in 1998, but retained the name of Waste Management. WMAC owns and operates the Altamont Landfill and Resource Recovery Facility in unincorporated Alameda County, the Tri-Cities Recycling and Disposal Facility in the City of Fremont (slated for closure in 2004). It also owns the Davis Street Transfer Station in the City of San Leandro. Outside the county, WMAC owns Redwood Landfill in Marin County and Guadalupe Landfill in Santa Clara County. WMAC currently has franchises for waste collection and disposal with nine jurisdictions, contracts for disposal only with two jurisdictions and a contract for collection only with one jurisdiction. WMAC also receives wastes from San Francisco at Altamont landfill. The company also has numerous contracts for waste diversion programs such as residential curbside collection.

- **Allied/Browning-Ferris Industries.** BFI has a collection franchise with one jurisdiction, the City of Fremont. BFI formerly owned and operated the Vasco Road Sanitary Landfill in unincorporated Alameda County. When BFI was acquired by Allied Industries (which

continues to operate as BFI), it was required to divest itself of the Vasco Road Landfill.

- **Republic Services.** Republic Services bought Vasco Road from BFI in 2000. Republic operates the Vasco Road Sanitary Landfill in unincorporated Alameda County, which currently receives wastes from three Alameda County jurisdictions (Livermore, Pleasanton, and Berkeley). Republic has also secured one collection and disposal franchise in Alameda County (City of Piedmont). Republic bought the Richmond Sanitary Company in West Contra Costa County, and owns the West Contra Costa County Sanitary Landfill in Richmond as well as the Potrero Hills Landfill in Solano County.
- **Pleasanton Garbage Service.** PGS owns and operates the Pleasanton Transfer Station. The company provides waste collection service to the City of Pleasanton and to individuals in the unincorporated Sunol area. The company also provides a MRF at the transfer station.
- **Alameda County Industries.** Alameda County Industries owns a newly permitted Direct Transfer Station and a MRF in San Leandro. It holds contracts for garbage hauling and recycling services in San Leandro and Alameda.

TABLE 2 - 4

PERMITTING AGENCIES

LEVEL OF GOVERNMENT	AGENCY	PERMIT
LOCAL	o Alameda County and City Planning Depts.[1]	• CEQA, General Plan conformance, land use permits (conditional use, building, etc.)
	o Local Enforcement Agencies	• Solid Waste Facilities Permit
	o Alameda County Waste Management Authority	• Plan Conformance Determination
	o Airport Land Use Commission	• Plan Consistency Determination
REGIONAL	o Bay Area Air Quality Management District	• Authority to Construct, Permit to Operate
	o Regional Water Quality Control Board	• National Pollutant Discharge Elimination System Permit, Waste Discharge Requirements, 401 Certification
	o Bay Conservation and Development Commission	• BCDC Permit for projects within the Commission's jurisdiction
STATE	o California Integrated Waste Management Board	• Solid Waste Facility Permit, Facilities Permit Concurrence, Conformance Determination
	o California Department of Fish and Game	• Streambed Alteration Agreement, Endangered Species Review

[1] Alameda County Planning Department for the Altamont and Vasco Road Landfills; City of Fremont for the Tri-Cities Landfill

LEVEL OF GOVERNMENT	AGENCY	PERMIT
FEDERAL	o U.S. Army Corps of Engineers o U.S. Fish and Wildlife Services o U.S. Environmental Protection Agency	• Wetlands Fill Permit (404 Permit), Navigable Waters Permit • Endangered Species Review • Prevention of Significant Deterioration Permit, Subtitle D Regulations

In addition to the large companies currently providing comprehensive waste management services in Alameda County, there are a substantial number of large and small firms and non-profit groups that provide waste diversion services. This includes drop-off and buy-back centers, donated goods and resale merchandise stores, industries specializing in processing of secondary materials, such as wood wastes, and those that have become proficient in use of secondary materials among others. Several of these that are notable for having secured contracts for municipal collection of recyclables include:

- **California Waste Solutions** provides a portion of the City of Oakland residential curbside recycling program.
- **Tri-CED** provides curbside recycling services in the City of Union City and, with Waste Management Inc. of Alameda County, to the City of Hayward.
- **NorCal** NorCal's Golden Gate Disposal and Recycling subsidiary, which collects solid waste in San Francisco, provides commercial food waste collection and recycling under a non-exclusive franchise in Oakland. Norcal processes the food waste into compost at its Hay Road Landfill in Vacaville.
- **The Ecology Center** provides residential curbside recycling collection in Berkeley.

7. The Alameda County Public

The most important participant in the waste management system is the general public. The public is, of course, a major waste *generator*, along with commercial and industrial operations. The public is also a major generator of materials for recycling and reuse. And it is the *user* of the facilities and programs developed by both private industry and government agencies. The need for public education in waste minimization has long been recognized. Yet, the existing interest of Alameda County residents in recycling is already well-established –certainly the passage of the countywide Measure D recycling initiative is evidence of this.

The need to involve the public in the decision-making process is also recognized. The Authority, for instance, has undertaken an information program using the media to familiarize the public about existing and proposed Authority activities. Public members have been appointed to advisory bodies such as the Local Task Force and the County Recycling Board. The public is encouraged to participate at the meetings of the Authority and other government agencies, either directly or through the activities of various non-profit interest groups. The Authority complies with all requirements of the State "Brown Act" open meeting law.

THE SYSTEM COMPONENTS

The participants in the County's solid waste management system have created an extensive system of existing facilities and programs for waste diversion and waste disposal. As detailed in Section 3, these existing system components provide a minimum 15 years of landfill disposal capacity countywide.

Waste Disposal Facilities/Programs

Waste disposal consists of three basic elements: collection, transfer and landfilling.

1. Waste Collection

Municipal solid waste collection and disposal in Alameda County is a local government responsibility shared among fourteen cities and two sanitary districts. Most residential and commercial/industrial collection is provided through franchise agreements and contracts. Figure 2-A - "Solid Waste Collection and Haul" provides a map that identifies the agency or firm responsible for waste collection in each jurisdiction.

Waste Management of Alameda County [WMAC] is the largest collector in Alameda County. WMAC has franchises with 8 cities and 2 sanitary districts containing about 891,000 population, or 63% of the county total. WMAC provides collection services for residential, commercial and industrial customers, as well as public facilities (parks, public buildings). It provides regularly scheduled annual or semi-annual residential cleanups in most communities. In addition to franchised collection, WMAC accepts self-haul by the public and small commercial haulers at the Davis Street Transfer Station and the Tri-Cities landfill. Minor amounts of self-haul are also delivered to the Altamont landfill.

The second largest hauler in Alameda County is Browning Ferris Industries [BFI]. BFI holds the collection franchise for the City of Fremont, containing about 14 percent of the county's population.

Alameda County Industries collects solid waste in both the portion of the City of San Leandro that is not within the Oro Loma Sanitary District and in the City of Alameda. These service areas account for approximately 10 percent of the County’s population.

The City of Berkeley, with about 8 percent of the County's population, provides its own collection service and accepts self-haul at the Berkeley Transfer Station.

The City of Pleasanton, with 4 percent of the County's population, contracts for collection with the Pleasanton Garbage Service and accepts self-haul at the Pleasanton Transfer Station.

Republic Services, Inc. serves the City of Piedmont, which accounts for slightly less than one percent of the population.

Figure 2 - A

SOLID WASTE COLLECTION & HAUL

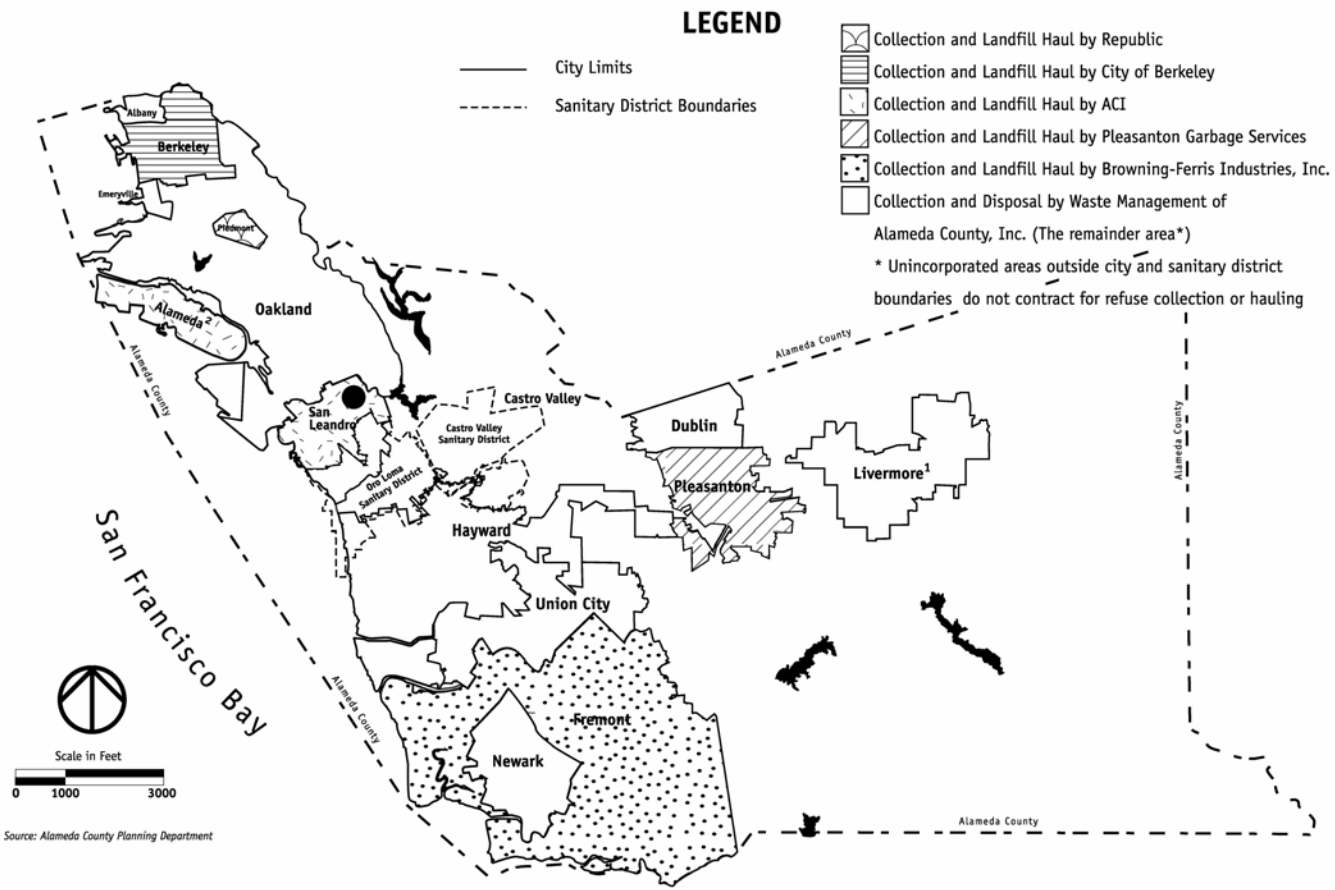


Figure 2-A: SOLID WASTE COLLECTION AND DISPOSAL

[1] Waste goes to Vasco Road

[2] ACI delivers to Davis Street and WMI hauls to Altamont

Most of the county's unincorporated residents are within either the Oro Loma Sanitary District or Castro Valley Sanitary District. These two districts franchise for waste collection. However, about 1% of the county's population is in unincorporated areas outside these two districts; in small areas surrounding cities, in unincorporated communities such as Sunol, or in remote ranch and farming areas. Since the County of Alameda does not presently franchise for waste collection, residents and businesses in these areas generally self-haul or contract for collection service with the nearest provider.

Solid waste disposed within the County has declined substantially since 1990, due in large part to AB939. Table 2-5 presents In-County waste disposal for the various jurisdictions for the years 1990, 1995, and 2000.

Table 2-6 following gives a fuller picture of local Municipal Solid Waste [MSW] collection activities indicating the collection and disposal service provider for each jurisdiction, the term of each agreement and noting some provisions for waste ownership.

TABLE 2 - 5

In-County Waste Disposal Comparison 1990, 1995, 2000 (Annual Tons)

Jurisdiction	1990			1995			2000		
	Residential	Non-Residential	Total	Residential	Non-Residential	Total	Residential	Non-Residential	Total
Alameda	31,806	64,577	96,383	24,861	33,537	58,398	21,434	26,987	48,421
Albany	7,024	11,459	18,483	5,953	5,490	11,443	4,749	5,153	9,902
Berkeley	33,094	67,191	100,285	42,251	41,732	83,983	35,904	56,898	92,802
Castro Valley S. D.	19,416	36,059	55,475	11,644	19,970	31,614	12,618	18,318	30,936
Dublin	7,924	33,783	41,707	6,964	28,877	35,841	8,520	27,260	35,780
Emeryville	2,682	24,134	26,816	1,833	14,301	16,134	1,987	22,164	24,151
Fremont	77,037	208,287	285,324	58,446	126,865	185,311	52,013	147,909	199,922
Hayward	47,484	168,353	215,837	29,925	114,166	144,091	37,393	141,125	178,518
Livermore	23,380	57,241	80,621	18,139	65,165	83,304	30,694	95,489	126,183
Newark	15,740	42,558	58,298	10,183	41,678	51,861	9,975	42,583	52,558
Oakland	163,323	419,975	583,298	148,449	351,918	500,367	137,493	254,963	392,456
Oro Loma S. D.	27,490	70,688	98,178	16,849	22,345	39,194	19,517	18,241	37,758
Piedmont	3,889	5,597	9,486	3,975	2,646	6,621	3,703	1,708	5,411
Pleasanton	24,309	81,383	105,692	23,667	74,853	98,520	27,798	97,407	125,205
San Leandro	49,274	91,508	140,782	23,963	74,047	98,010	34,257	92,149	126,406
Union City	22,510	50,103	72,613	15,725	41,405	57,130	16,060	39,221	55,281
Uninc. Alameda	3,585	11,352	14,937	2,285	10,343	12,628	1,460	9,533	10,993
County Total	559,967	1,444,248	2,004,215	445,112	1,069,338	1,514,450	455,575	1,097,108	1,552,683

Table 2-6

Service Provider Contract Information

Jurisdiction	Service Provider	Services	Year Executed	Expiration Date
Alameda	ACI	Solid wave, recycling and plant debris	2002	September 30, 2012
Albany	WMAC	Solid waste	1978	January 1, 2004
	WMAC	Recycling	1995	January 1, 2004
	WMAC	Plant debris	1995	December 31, 2003
Berkeley	Ecology Center	Recycling	1992	June 30, 2005
Castro Valley Sanitary District	WMAC	Solid waste, recycling, and plant debris	2001	April 30, 2009
Dublin	WMAC	Solid waste, recycling, and plant debris	1995	June 30, 2005
Emeryville	WMAC	Solid waste and recycling	1996	December 2, 2005
Fremont	BFI	Solid waste, recycling, and plant debris	1994	December 31, 2009
Hayward	WMAC	Solid waste, recyclable materials, and compostable materials	1996	May 31, 2007
Livermore	WMAC	Solid waste, recycling, and plant debris	2002	June 30, 2009
Newark	WMAC	Solid waste and recycling	1995	March 31, 2005
Oakland	WMAC	Solid waste and plant debris	1995	December 31, 2010
	WMAC	Recycling	2000	December 31, 2010
	CWA	Recycling	1997	December 31, 2004
Oro Loma Sanitary District	WMAC	Solid waste, recycling, and plant debris	1997	August 31, 2007
Piedmont	Republic Services	Solid waste, recycling, and plant debris	2001	July 5, 2008 (Solid waste)

Jurisdiction	Service Provider	Services	Year Executed	Expiration Date
				July 5, 2006 (Recycling and green waste)
Pleasanton	PGS	Solid waste	1989	July 30, 2019
San Leandro	ACI	Solid waste, recycling, and plant debris	2000	January 21, 2010
Union City	WMAC	Solid waste and plant debris	1994	June 30, 2002
	Tri-CED	Recycling	1994	June 30, 2002
Unincorporat-ed Alameda County Community Services District (West A Street, Eden, and Fairview)	WMAC	Solid waste, recycling, and plant debris	2000	August 31, 2007

2. Transfer Stations

Local transfer stations are often the second element in waste disposal. Transfer stations are located near population centers. Their function is to receive waste delivered by local garbage trucks and by public self-haul vehicles. At the station, the waste is then transferred to larger vehicles for long-distance hauling to landfills. There are several benefits to this transfer operation: a) reduced transportation costs b) convenient local "disposal" sites for the public, c) an opportunity to inspect loads and remove hazardous materials, d) an opportunity to divert recyclables, and e) hauling of waste in larger capacity vehicles which creates less traffic and air pollution than many smaller vehicles. In addition, transfer stations frequently are logical sites to sort and/or process recyclable and compostable materials.

In 2001, three transfer stations operated in Alameda County: the Davis Street Transfer Station in San Leandro, the Berkeley Transfer Station in Berkeley, and the Pleasanton Transfer Station in Pleasanton. Table 2-7 describes the capacity and geographic wasteshed of each of these transfer stations. Figure 2-B presents a map showing the location of the transfer stations and landfills in Alameda County and the origin and direction of waste flows. Additionally, ACI has been permitted to construct a direct-transfer station in San Leandro, which began operation in May 2002. As part of the Tri-Cities Landfill closure (estimated in 2004), a transfer station is proposed to be constructed in Fremont.

Long haul transfer vehicles used at the Davis Street, Berkeley or Pleasanton Transfer Stations include "moving floor" and "possum belly" vehicles, each designed to transport an average of 21 to 25 tons of compacted waste, per trip.

Figure 2 - B:
Solid Waste Disposal Patterns

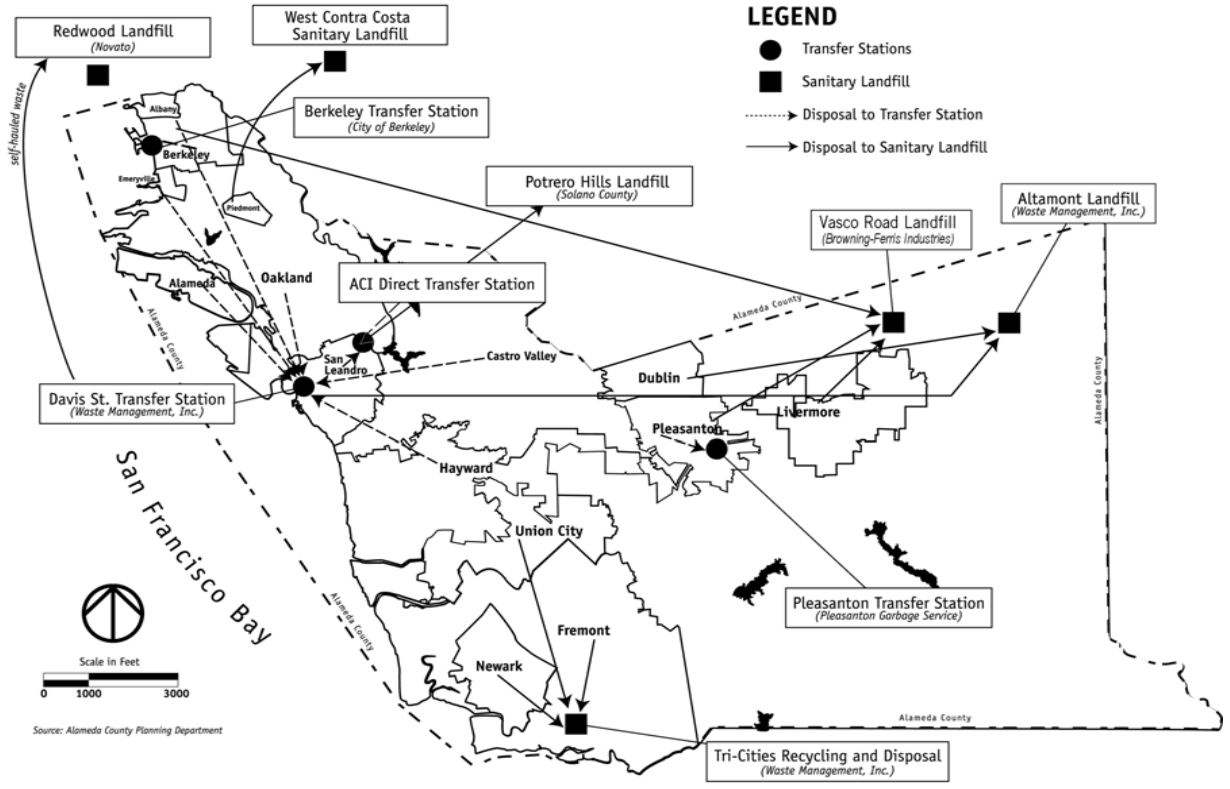


Figure 2-B: SOLID WASTE DISPOSAL PATTERNS

TABLE 2-7

ALAMEDA COUNTY TRANSFER STATIONS

TRANSFER STATION[1]	OWNER/ OPERATOR	WASTESHEDS	DISPOSAL TONNAGE TOTAL TPY/TPD-5[2]	SITE ACREAGE	DESIGN / PERMITTED CAPACITY[3]
Davis Street	Waste Management of Alameda County [WMAC]	Not Restricted	787,253/ 3028 TPD-5	53	9,600 TPD/ 5,600 TPD
Berkeley	City of Berkeley	Berkeley	84,873/ 233 AVG	4.6	560 TPD/ 400 TPD
Pleasanton	Pleasanton Garbage Service	Pleasanton	108,482/ 417 TPD-5	7.6	720 TPD/ 350 TPD
ACI San Leandro Open date: May 2002	Alameda County Industries	San Leandro	150 TPD	2.8	150 TPD/ 150TPD

[1] The Alameda County Department of Environmental Health is the permitting and regulatory agency, for the ACI, Davis Street and Pleasanton Transfer Stations. The City of Berkeley Division of Environmental Health is the permitting and regulatory agency for the Berkeley Transfer Station .

[2] Tons per Year [TPY] and Tons per Day [TPD] waste quantities for Davis Street and Pleasanton are for 2001. TPD derived by dividing TPY by 365 days and rounding.

[3] Permitted Daily Waste Tonnage [Peak]

Figure 2 - C

EXISTING TRANSFER STATIONS

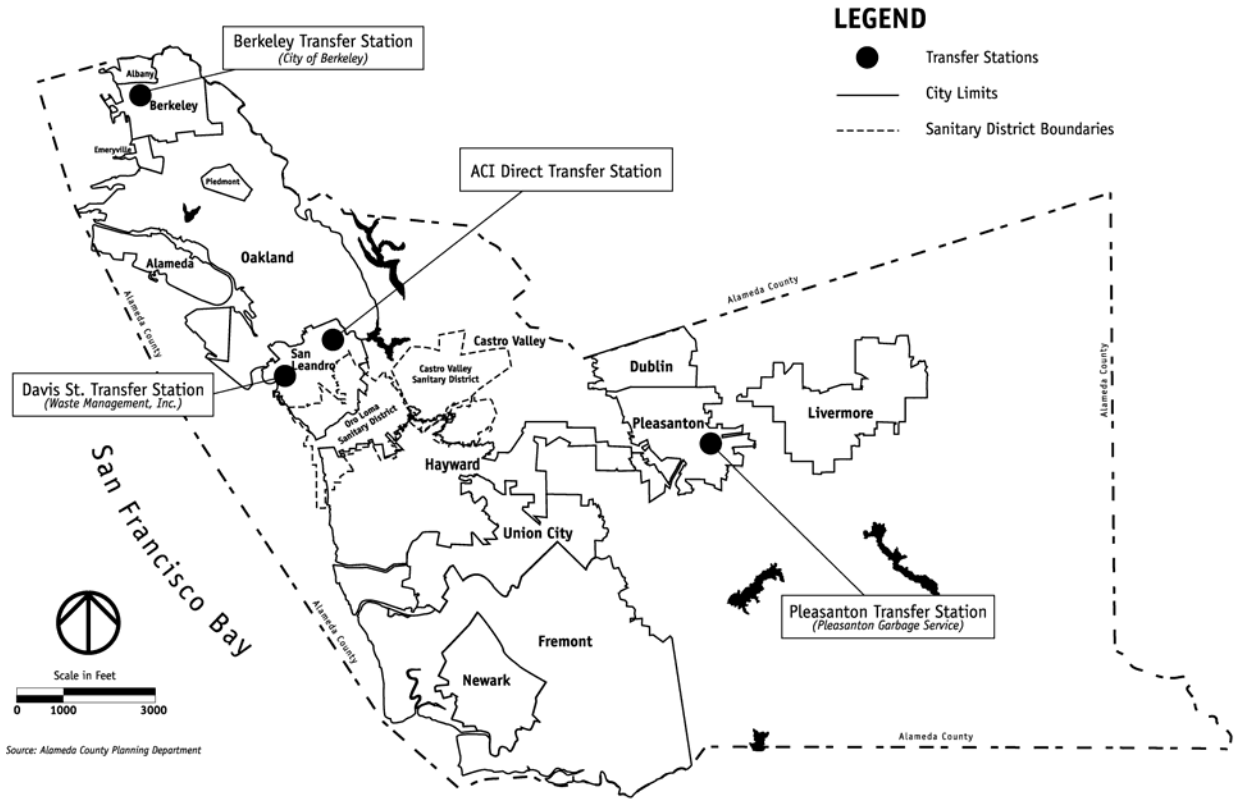


Figure 2-C: EXISTING TRANSFER STATIONS

a) Davis Street Transfer Station and Recycling Center

The Davis Street Transfer Station is located at 2615 Davis Street, west of Doolittle Drive, San Leandro, on a portion of the 53+ acre site of the former Davis Street Landfill which closed in 1980.

Owned and operated by WMAC, this facility originally obtained a Solid Waste Facilities Permit [SWFP] (#01-AA-0007) in 1980, and serves nine jurisdictions in the northern and central portions of the County. The Station is permitted for Class II wastes (non-hazardous, inert and designated wastes), and is expressly prohibited from accepting hazardous wastes, including asbestos, infectious wastes and pesticides or any liquid wastes. A load check program has been adopted at the Station, in accordance with the SWFP for the Altamont Landfill.

In 2001, the Station output was 787,253 tons of municipal solid waste, which is an average of 3,028 TPD-5 (tons per day with 5-day per week basis).

Davis Street Transfer Station operates 7 days per week, 24 hours/day, and is open to the public from 7:00 a.m. to 5:00 p.m. daily. Transfer operations at the Davis Street Transfer Station consists of receiving, weighing, compacting, and loading waste into long-haul semi-transfer trailers for transport to the Altamont Landfill (66-mile round-trip) or the Redwood Landfill. The average load for each of these vehicles is in the range of 21-25 tons. Transfer trailers typically operate five days per week.

The Station's average daily outflow of 3,028 tons is well below the permit limit of 5,600 tons per day. Recovery operations at the Davis Street Transfer Station include: 1) receiving, shredding, and haulout of source-separated green waste from curbside programs and self-haul loads; and 2) processing of curbside recyclables. In 2001, the Station had an output of 123,024 tons of green waste and 91,693 tons of curbside recyclables. From the MSW delivered to the site, an additional 41,848 tons were recovered primarily from a small construction and demolition waste (C&D) and paper sorting line and from clean loads of wood, dirt, and concrete. Regarding source-separated wastes, the Station also has a buy-back recycling center which accepts a variety of paper, plastics, glass, metals. A new MRF line began operation in August 2002, targeting recyclables-rich debris box and self haul loads, including C&D. The new MRF may increase recycling volumes by 20-40,000 tons per year.

Surrounding land-uses consist of a mix of commercial, industrial, residential and recreational uses. The San Leandro Marina is about 3/4 mile to the southeast. The Mulford Gardens residential area is about 2,000 feet to the southeast, with intervening general industry uses consisting of distribution, warehousing and trucking activities. The San Leandro Sewage Treatment Plant and Lew Galbraith Golf Course are directly north of the site. To the west is the former landfill site, which has been transferred to the East Bay Regional Parks District. The Southern Pacific Transportation Company Industrial Tract lies beyond a slough along the southeastern property line.

The facility has a Solid Waste Facilities Permit approved by the CIWMB and issued by the Alameda County LEA. According to the Alameda County LEA, there have been no major permit violations at the facility.

b) Berkeley Transfer Station

The Berkeley Transfer Station is located on a 4.68 acre site at Second and Gilman Streets. The facility is on municipal property but was initially constructed and operated by BFI. In 1985 the City's Solid Waste Management Division assumed operations. The property and facility are now entirely owned and operated by the City of Berkeley.

The City of Berkeley estimates that the transfer station output was 94,000 tons of MSW (361 TPD-5), 15,059 tons of organics (60 TPD-5), and 2,007 tons were diverted for reuse or recycling in 2001. The Station's capacity is estimated to be 144,400 tons per year (TPY) and 560 TPD-5. The station is open six days a week. Public hours are from 8:30 a.m. - 4:30 p.m., and approximately 400 to 500 vehicles use the facility on a daily basis.

Operations include unloading, selected salvaging and recycling, and loading residual waste into transfer trailers. Green wastes and some commercial food waste are also loaded separately into transfer trailers for composting off-site C&D wastes are accepted, if delivered in vehicles of under one ton load capacity. The Berkeley Transfer Station does not accept large loads of C&D wastes. Under applicable permits, hazardous materials cannot be delivered to the transfer station. Recently, a misting-type dust suppression system was added to the Station.

While reusable and recyclable items are recovered from the tipping floor, the station itself does not have sorting or any other processing equipment for recyclables or green waste. However, the station shares its site with a recycling drop-off/buy-back center and curbside collection depot. The facility includes a Motor Oil Recycling Depot and Safety Storage Container (for Fire Department use). All non-marketable and non-recoverable residues are hauled by transfer truck to Vasco Road Landfill, located 2.5 miles northeast of Livermore.

The transfer station is located within compatible industrial land uses and zoning (Manufacturing M).

The California Integrated Waste Management Board is the local enforcement agency for the transfer station. The CIWMB assumed this responsibility in 1993 when the City of Berkeley determined to quit this role.

c) Pleasanton Transfer Station

The Pleasanton Transfer Station is owned and operated by the Pleasanton Garbage Service and has been in operation since 1976. In addition to Pleasanton (franchised until 2019), the transfer station serves a portion of unincorporated Alameda County within a 15-mile radius including Sunol Valley and Castlewood. The facility accepts

residential, commercial and industrial franchise waste, and public self-haul deliveries and construction/demolition wastes.

All franchised waste handled at the facility is collected by Pleasanton Garbage Service. In 1994, the City of Pleasanton instituted a "blue bag" curbside collection program, which allowed curbside collection of mixed recyclables in separate bags from garbage. Collection vehicles include front and rear loaders, fully automated side loaders, and box trucks. Residual waste is disposed at the Vasco Road Landfill via transfer trailer trucks.

The facility operates from 8:00 a.m. to 4:00 p.m., seven days per week. About 160 vehicle-loads are delivered to the station daily and about 125 self-haul loads arrive on Saturday and Sunday. A hazardous waste screening program is part of routine operations. The transfer station output was and 117,642 tons of MSW (452 TPD-5), 6,014 tons of green waste (23 TPD-5), 2005 tons of wood, and 811 tons of recyclables from a buyback in 2001.

The Station is compatible with adjacent zoning and land-uses, which consist of sand and gravel mining and processing, and other industrial and agricultural uses.

d) Aladdin Transfer Station and Recycling Center

At the site of Alameda County Industries' (ACI) existing Aladdin Avenue recycling facility (610 Aladdin Avenue, San Leandro), ACI is adding a direct transfer station to receive MSW from the City of San Leandro for truck transfer to Potrero Hills Sanitary Landfill in Solano County. Previously, waste from San Leandro was handled through the Davis Street transfer station and/or by direct hauling to the Richmond Landfill in Contra Costa County.

A direct transfer station differs from ordinary transfer facilities, such as Davis Street, primarily in that the local collection trucks discharge their loads directly into a transfer trailer, without any waste touching the ground at any point. Therefore, there is no storage of waste, except for a limited time in a transfer trailer (8-hour maximum). Overnight storage is prohibited. There is no opportunity to sort or process the waste in any way.

The 2000 Waste Characterization Study indicates a waste flow from San Leandro, excluding self-haul, of 95,462 tons for the year 2000 (367 TPD-5). The facility will only handle waste from the City of San Leandro. No self-haul waste will be accepted. Direct transfer facilities are limited to a maximum of 150 TPD. Therefore, daily waste flow beyond this amount will be taken to the Davis Street facility.

Future plans may include the transfer of co-collected green waste and food waste. Green waste from San Leandro is already handled through the Aladdin Avenue facility.

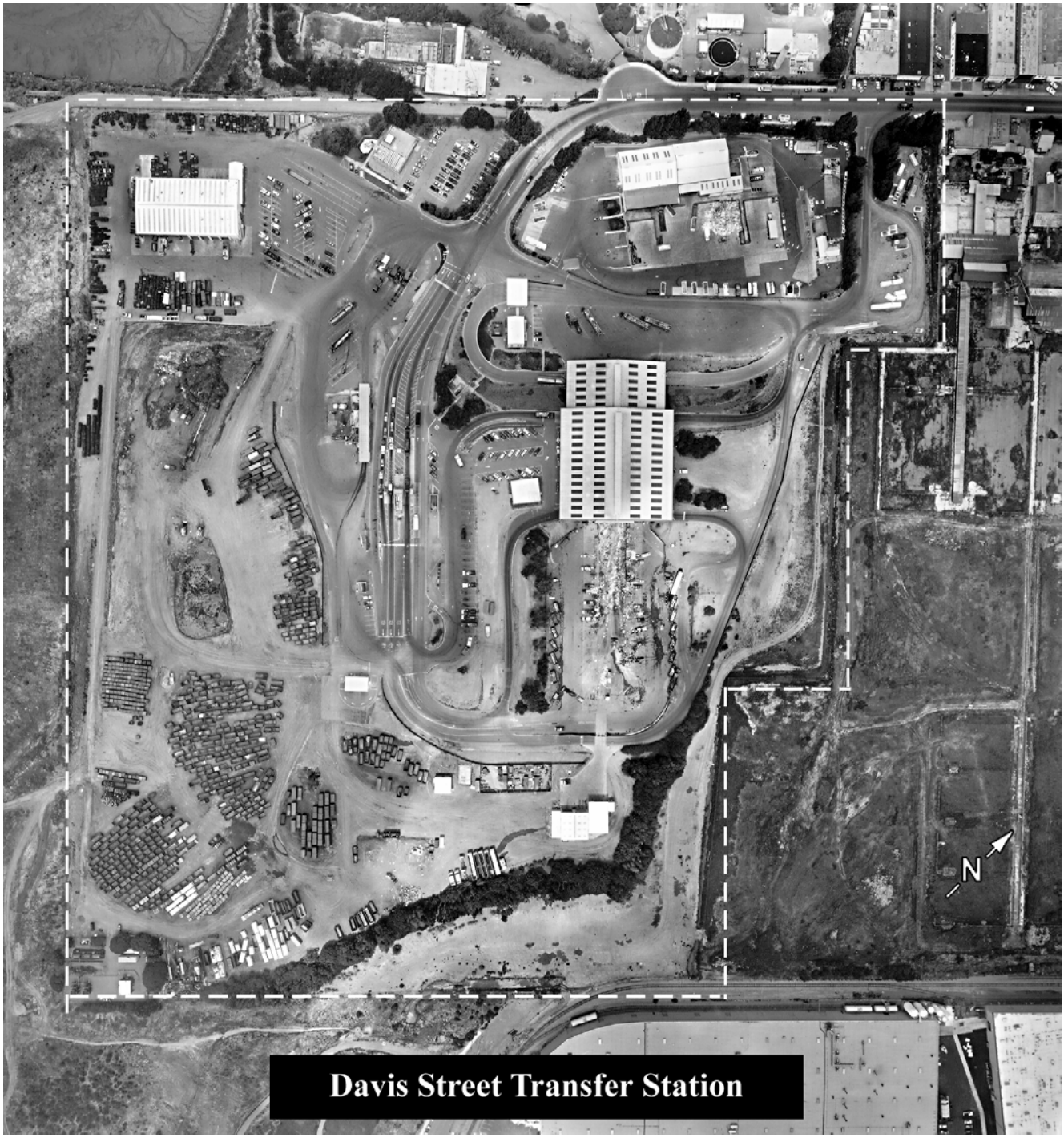
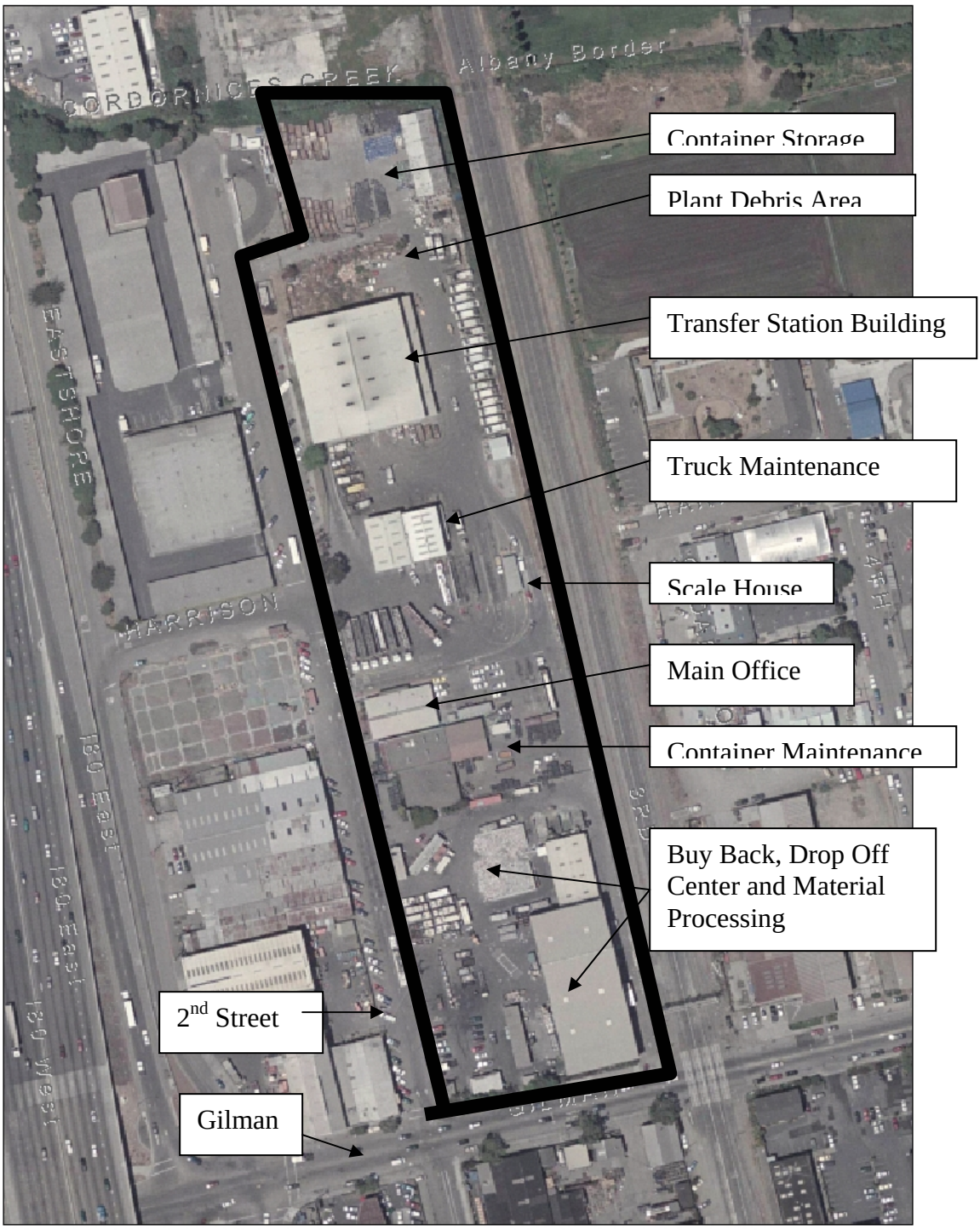


Figure 2-D

Figure 2-E
Berkeley Transfer Station



Recycling Facilities and Transfer Station Facilities, City of Berkeley

Figure 2-F

Pleasanton Transfer Station

3. Solid Waste Landfilling

The final element in refuse disposal is landfilling in a permitted sanitary landfill. Landfills are the most strictly regulated component in the waste management system. The combination of high landfill construction costs, partly due to stringent federal, state and local standards, and frequent opposition from neighbors and others to particular proposed sites, has made landfill development an extremely difficult and time-consuming process.

There are presently three operating landfills in Alameda County: Altamont Landfill, Vasco Road Sanitary Landfill and the Tri-Cities Landfill. Tri-Cities is slated to close in 2004. Each of these is privately owned and operated. In addition, the ACWMA has acquired property and adopted a Conceptual Plan and Environmental Impact Report for an Integrated Waste Management Facility which includes, as one of its components, reserve landfill capacity.

Due to mergers, acquisitions, and lower tipping fees, out-of-county landfills are increasingly used for Alameda County Waste. The most commonly used landfills outside the county are Redwood Sanitary Landfill in Marin County and Forward Inc, landfill in San Joaquin County.

A summary description of key operating characteristics of the three Alameda County disposal facilities is contained in Table 2-8. A location map of the two East County landfills and the ACWMA Integrated Waste Management Facility site is contained in Figure 2-D. As described in the preceding discussion, the bulk of waste is delivered to Alameda County landfills in transfer vehicles from the Davis Street, Berkeley and Pleasanton transfer stations. In addition, the Altamont landfill receives direct haul by collection trucks from Dublin. The Vasco Road landfill receives waste directly hauled by collection trucks from Livermore. The Tri-Cities Landfill receives waste directly hauled by collection trucks from Fremont, Newark and Union City. All three landfills also receive self-haul deliveries by the public; although, due to its more remote location, Altamont Landfill receives much less self-haul waste than do Tri-Cities and Vasco Road landfills

Two of the landfills in Alameda County also receive wastes from out-of-county origins. Each of these waste importations has required an amendment to the County Solid Waste Management Plan and must be included in the Countywide Element of the County Integrated Waste Management Plan. Altamont accepts franchised and non-franchised municipal solid waste and designated wastes from San Francisco and may allow franchised waste from San Ramon. Altamont also accepts a limited amount of water and wastewater sludge, inert waste, special waste, and construction/demolition debris the nine-County Bay Area Region. Vasco Road accepts non-franchised construction/demolition debris and designated wastes from locations throughout the Bay Area. The Vasco Road wasteshed includes two Contra Costa County cities, San Ramon and Brentwood. San Ramon is also included in the Altamont wasteshed.

TABLE 2 - 8

ALAMEDA COUNTY LANDFILLS

LANDFILL	OWNER/ OPERATOR	WASTE SOURCES	SITE AREA [ACRES]	PERMITTED LANDFILL AREA [ACRES]	STATE CLASS-IFICATION [1]	MAXIMUM PERMITTED QUANTITY TPD-5 [2]	2001 QUANTITY RECEIVED TPY / TPD-5	REMAINING CAPACITY in Millions Tons[3]	EXPECTED CLOSURE DATE [4]
Tri-Cities (Formerly Durham Rd.)	Waste Management Inc. - WMAC	Fremont, Newark, Union City	378	**108**	III	2,000	280,492 / 1080	less than 1	2004
Altamont	Waste Management of Alameda County - WMAC	Dublin, Davis St. Trans. Sta., All Alameda County Jurisdictions, San Francisco, Brentwood, San Ramon, as described in Res. #2000-10	2,170	**480**	II	7,000 TPD/1,600,000 TPY	1,951,402 / 7505	7	2071
Vasco Rd	Republic Services	All Alameda County Jurisdictions, Berkeley Transfer Station, Livermore, Pleasanton Transfer Station, Dublin, San Ramon, Brentwood	644	**222**	III	2,153	430,621 / 1,656	—2001 14.0	2037

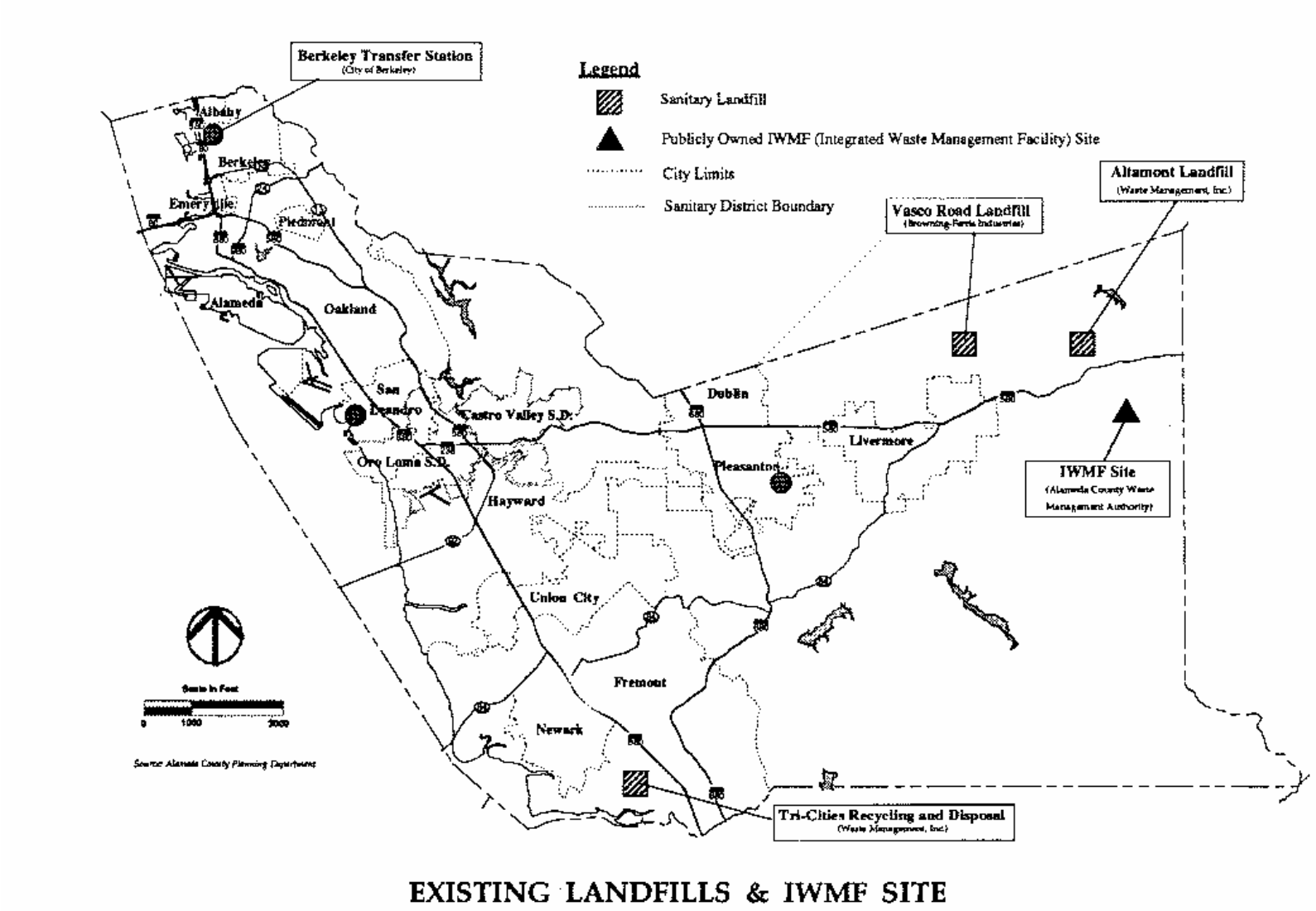
[1] State Water Resources Control Board Classification

[2] LEA Facility Permit/Facility Operator

[3] Approximate remaining refuse capacity as of 12/90 and 12/2001, applying operator conversion rates.

[4] Varies dependent upon rate of fill in given year. Based on end-of-year remaining capacity report submitted by landfill operator for given year.

Figure 2 - G



EXISTING LANDFILLS & IWMF SITE

a) Tri-Cities Recycling and Disposal Facility

The Tri-Cities Recycling and Disposal Facility (formerly the Durham Road Landfill) is located at 7010 Auto Mall Parkway (formerly Durham Road) in the city of Fremont, on 108 of a total 378 acre site of which approximately 225 acres are authorized to receive waste under the current Solid Waste Facilities Permit.

Landfill operations date from 1967. The Facility is owned and operated by Waste Management Inc. of Alameda County [WMAC] and provides franchise disposal service to the Tri-Cities of Fremont, Newark and Union City. The facility is classified as a Class III sanitary landfill, which accepts municipal solid waste.

The site is bounded to the north by the Alameda County Flood Control District Channel; to the South by the Leslie Salt evaporation ponds, and land within the San Francisco Bay National Wildlife Refuge; to the east by Southern Pacific Railroad tracks. The nearest residence is located approximately 300 feet away.

Approximately 13% of a total of 280,982 tons of waste disposed at this facility in 2001 consisted of self-haul waste. The franchised haulers delivered the remainder. Public hours of operation are from 8:00 a.m. to 5:00 p.m. seven days per week.

The 2001 daily average waste volume was 1080 TPD-5. Recovery operations at the Tri-Cities Facility include a small MRF which consists of public drop-off areas and curbside separation lines. The Facility presently diverts the majority of concrete and asphalt delivered to the site, which is stockpiled until sufficient quantities permit crushing. A total of 42,619 tons of dirt, concrete, and asphalt were recovered from the arriving waste loads during 2001. Crushed concrete and asphalt are used for on-site road and tipping pad construction. Other recovered materials are segregated and marketed. A woodwaste/greenwaste diversion program is also operating on the landfill site. For 2001, the green waste facility had a throughput of 29,139 tons.

In accordance with Chapter 15 regulations, a load check program has been implemented at the Facility to screen for Hazardous Wastes. Landfill gas is collected and flared at the site.

The landfill has little remaining permitted capacity. Filling operations are expected to end in 2004. A transfer station is proposed to be built to divert waste from the Tri-Cities to another landfill when the landfill's capacity is reached.

The City of Fremont Conditional Use Permit for the site includes a provision that WMAC shall prepare a rehabilitation plan with the intent that the site will blend with the general topography and vegetation as exhibited by the nearby Coyote Hills, and remain in open space.

b) Vasco Road Sanitary Landfill

The Vasco Road Landfill is located on 246 acres of a total 435 acre site, at 4001 North Vasco Road, east side, approximately three miles north of Interstate 580, northeast of the city of Livermore, in unincorporated Alameda County.

Ralph Properties and DePaoli Equipment Company, Inc initiated landfill operations in 1963. In 1989 Browning Ferris Industries (BFI) acquired the Landfill. Currently, Republic Services owns and operates Vasco Road Sanitary Landfill.

The Landfill currently accepts franchised municipal solid waste from the cities of Berkeley, Pleasanton and Livermore, and operates under a Solid Waste Facilities Permit which allows a maximum of 2,518 tons per day (TPD). Public operating hours are from 6:00 a.m. to 5:00 p.m. Monday through Friday, and 6:00 a.m. to 4:30 p.m. Saturday.

Disposal totaled 430,621 tons per year (TPY) for 2001, which is an average of 1656 TPD-5. Approximately 80 percent of this flow is from Alameda County.

As of June, 2001, Vasco Road reported remaining capacity for about 14 million tons of waste. This would provide about 30 years capacity at the 2001 rate of disposal.

c) Altamont Landfill

Altamont Landfill is located at 10840 Altamont Pass Road in unincorporated Alameda County on a 2,170 acre site of which 480 acres are permitted for landfill. Landfill operations began in 1980. The Facility is owned and operated by Waste Management Inc. of Alameda County [WMAC], a subsidiary of Waste Management Incorporated [WMI].

In 1990, the landfill was designated as Class III and allowed to accept primarily municipal solid wastes [MSW]. However, design changes including the addition of a composite clay and synthetic liner were made in 1993, in order to meet federal Subtitle D requirements. In 1994, the landfill was redesignated a Class II facility. This allows the disposal of municipal solid wastes and designated wastes. Through franchise and contractual agreements, Altamont currently receives municipal solid wastes from eight Alameda County jurisdictions (Albany, Emeryville, Oakland, Alameda, Castro Valley, Hayward, Dublin and the Oro Loma Sanitary District) as well as import waste from the City and County of San Francisco (15 million tons, starting 1988), San Ramon, and Danville.

In 2001, Altamont Landfill received an estimated 1,951,402 tons of waste. Of this amount, approximately 1.45 million tons represent waste disposal and the remainder are materials recovered for uses on site, such as roadbuilding and landfill cover, and for recycling offsite, such as wood and scrap metals. Altamont is permitted for a maximum of 1.6 million tons per year, subject to periodic adjustments. Daily disposal at Altamont is limited to a maximum of 11,150 tons per day. Actual input averaged 7,505 TPD-5, 51 percent of which are generated in Alameda County.

As of July, 2001, the estimated remaining refuse capacity for the Altamont Landfill was 67 million tons. At the 2001 rate of fill, the facility has slightly in excess of 34 years of capacity. However, if all waste from the soon-to-close Tri-Cities Landfill were diverted to Altamont, the currently permitted life would be reduced to about 30 years. If, however, San Francisco waste goes out of County as of 2010 and waste reduction projections are met, then capacity is through 2071.

The Landfill is permitted to operate 24 hours daily, seven days per week. Public hours of operation are from 6 a.m. to 7 p.m., Monday through Friday and 7 a.m. to 2:30 on Saturday.

A Preliminary Closure Plan for the Altamont Class II Landfill has been prepared as part of the Master Operations Plan in compliance with CCR Title 14, Chapters 3 & 5, Articles 7.8, 3.45, 3.5, and Title 23, Subchapter 15. Permittees of landfills are required to submit a landfill and land-use plan twenty-four months prior to closure. The proposed final cover is designed to meet Section 17773 (CCR Title 14) and 2581 (Title 23), and will provide at least four feet of final cover soil to the landfill surface.

The Final Cover is designed to provide long-term minimization of surface water intrusion, to accommodate settlement and subsidence, to isolate the wastes from the surface, and to reduce the potential for odors and gas emissions. The Cover also provides a base for vegetation, which will reduce drainage velocity, thus minimizing erosion and abrasion of the cover. The site will revert to open-space/ agricultural (livestock grazing) uses upon closure.

d) ACWMA Integrated Waste Management Facility [IWMF]

The Alameda County Waste Management Authority has acquired land in the Altamont Hills area suitable for development of a public multi-purpose waste management facility. Depending upon need, the facility could include various diversion facilities in conjunction with a landfill with sufficient capacity to provide additional reserve disposal capacity.

A Program EIR for Landfill Acquisition of an 86 square mile area in the Altamont Hills (Altamont Hills Landfill Acquisition EIR) was conducted in 1989. In 1994, the ACWMA approved an IWMF Conceptual Plan and EIR that called for five short-term activities including composting, co-composting, public recreation, public education, and habitat protection. The Plan also included long-term activities including reserve landfill capacity, and identified three potential landfill sites. The environmentally superior site, "Canyon B" contains 98 million cubic yards of landfill capacity. The Authority has determined not to proceed with permitting and development of a landfill at this time. The Authority will continue to hold the IWMF landfill site property as a potential reserve. Currently the Authority continues habitat protection and cattle grazing as part of its stewardship of the land.

4. Intercounty Waste Export

While the majority of franchised waste generated within the County continues to be landfilled in Alameda County, several jurisdictions do export their waste. City of Piedmont franchised waste is trucked to the West Contra Costa Landfill in Richmond, and San Leandro's franchised waste has been going to Potrero Hills landfill since May 2002. During the year 2000, approximately 126,000 tons of MSW (which represents about 7 percent of disposed waste that was generated in-County) were trucked from the Davis Street Transfer Station to Redwood Sanitary Landfill in Marin County, rather than to Altamont Landfill, which is the usual destination for waste from the Transfer Station. In addition, about 120,000 tons (approximately 7 percent of disposed waste generated in-County) were delivered by self-haulers to various out-of-County disposal sites in 2000.

In emergency situations, reciprocal emergency disposal agreements with adjacent counties may be made, as allowed by 14 CCR 17909 for facility contingency plans.

5. Intercounty Waste Import

Each landfill and transfer station in Alameda County has a designated geographic wasteshed. The wasteshed for franchised waste is identified in Table 2-8. In addition, the Vasco Road landfill wasteshed includes franchised and non-franchised (self-haul) MSW from anywhere in Alameda County and, since 1993, includes out-of-county construction/demolition debris and contaminated soils. The Vasco Road wasteshed includes two Contra Costa County cities, San Ramon and Brentwood. The Altamont Landfill wasteshed includes franchised and non-franchised waste from anywhere in Alameda County and certain franchised and non-franchised wastes from San Francisco and may allow franchised waste from San Ramon. Altamont may also dispose of minor amounts of out-of-county inert waste, and special waste, consisting of 130,000 tons annually from San Francisco, and 75,000 tons from elsewhere out-of-county, decreasing to 25,000 tons after the 2000 Altamont expansion began. Altamont may also receive minor non-franchised deliveries from Alameda County and San Francisco, and up to 25,000 tons annually from Contra Costa County. Tri-Cities landfill receives franchised waste and non-franchised self-hauled waste from the Tri-Cities area only.

Any change to a facility wasteshed including intercounty importation of waste requires an amendment to the CoIWMP Siting Element. The COIWMP provides for the following importation:

San Francisco County

Since 1982, San Francisco has disposed its MSW at the Altamont Landfill. Initially approved for a five-year period, 1983 to 1988, the import agreement was extended to allow continuous import and disposal of San Francisco waste up to a maximum total of 15 million tons. In addition, up to 130,000 tons per year of wastewater treatment plant sludge from San Francisco may be disposed at the Altamont Landfill. Beginning in 1993, non-franchised wastes from San Francisco were also disposed at Altamont Landfill. San Francisco must meet a

recycling rate requirement in order to dispose wastes at Altamont. Any renewal of a contract for disposal, if approved by ACWMA, will have a condition that at a minimum requires San Francisco to meet the recycling rate required by its current contract. At current waste disposal rates, which are likely to change, the 15 million-ton limit will be reached by about the year 2010.

Contra Costa County and San Ramon

An agreement in 1994 provides for disposal of waste from San Ramon and Brentwood at Vasco Road landfill. However, after, April 1996, most wastes that previously were disposed in Alameda county are being disposed at the Keller Canyon Landfill in Contra Costa county. Altamont may enter into a contract to receive franchise waste generated in the City of San Ramon, subject to advance notification of the ACWMA, but such approval will have a condition that at a minimum requires San Ramon to demonstrate it is achieving a recycling rate at least equal to that achieved by the Cities of Livermore and Pleasanton.

6. Waste Diversion Programs

Residential Curbside Recycling Programs

In 2002, all of the cities, both sanitary districts and many residents in the unincorporated portions of the County have either weekly or bi-weekly curbside recycling service. The City of Pleasanton is an exception in that it has a special "blue bag" program in which recyclables are placed in a separate bag within the garbage can and collected with the regular automated service.

Table 2 - 9 provides an overview of the service provider, frequency, and method of collection for residential recycling programs in Alameda County as of 2002.

Table 2-9

Summary of Residential Recycling Programs

Jurisdiction	Service Providers	Frequency	Container	Additional Materials[1]	Collection[2]
Alameda	ACI	Bi-weekly	30-, 60-, and 90-gallon carts	Scrap metal, #1–#7 narrow-neck plastics, foil, used motor oil, oil filters	Single-stream
Albany	WMAC	Weekly	Bins	Used motor oil	Source-separated (two streams)
Berkeley	Public/ Private	Weekly	12-gallon tubs and bundled fiber/60-gallon carts[3]	Aluminum foil and pie plates	Source-separated (three streams)
Castro Valley Sanitary District	WMAC	Weekly	64-gallon cart	#3–#7 narrow-neck bottles; #2, #4, and #5 wide-mouth tubs; aerosol cans	Single-stream
Dublin	WMAC	Weekly	64-gallon cart		Single-stream
Emeryville	WMAC	Weekly	64-gallon cart	#3–#7 plastics	Source-separated (two streams)
Fremont	BFI	Weekly	14-gallon tubs	Used motor oil and filters	Source-separated (three streams)
Hayward	CurbCycle	Weekly	18-gallon bins	#3–#7 narrow-neck plastic bottles, # 6 clean styrofoam, used motor oil	Source-separated (three streams)
Livermore	WMAC	Weekly	11-gallon tubs	-	Source-separated (three streams)
Newark	WMAC	Weekly	14-gallon tubs	Used motor oil	Source-separated (two streams)
Oakland	WMAC, CWS	Weekly/ Bi-weekly	18-gallon containers	#3–#7 narrow-neck plastics, aerosol cans, latex paint containers, and used motor oil and filters	Source-separated (three streams)
Oro Loma Sanitary District	WMAC	Bi-weekly	32-gallon cart	#3–#7 plastics, used motor oil	Source-separated (three steams)
Piedmont	Republic Services	Weekly	12- and 16-gallon bins	-	Source-separated (two streams)
Pleasanton	PGS	Weekly	30-gallon cart	-	Blue bag or commingled with refuse

[1] All jurisdictions have curbside collection of cardboard, newspaper, mixed paper, glass bottles/jars, aluminum cans, tin cans, and narrow-neck #1 and #2 plastic.

[2] Single stream: All materials (paper and containers) are collected in on recycling cart. Source-separated: Materials are separated into two or more streams (e.g., all paper in one crate, all containers in another crate).

[3] Tubs are for single-family homes (eight units or fewer), and carts are for multi-family dwellings (nine units or more).

Jurisdiction	Service Providers	Frequency	Container	Additional Materials[1]	Collection[2]
San Leandro	ACI	Bi-weekly	64-gallon containers	#3–#7 narrow neck plastics, scrap metal	Single-stream
Union City	Tri-CED	Weekly	18-gallon containers/ 96-gallon cart	Used motor oil	Source-separated (three streams)
Unincorporated Alameda County[1]	WMAC	Bi-weekly	64-gallon cart	Used motor oil	Single-stream

[1] Portion of the unincorporated county adjacent to Hayward

Table 2-10

Summary of Current and Planned Organics Diversion Programs

Jurisdiction	Service Provider	Frequency	Container	Destination	Food Waste
Alameda	ACI	Bi-weekly	30-, 60-, or 90-gallon carts	A variety of facilities, depending on pricing	Planned for 2002, residential and commercial
Albany	WMAC	Bi-weekly	Customer provided 32-gallon cans (limit of two per set-out)	Davis Street	No
Berkeley	Public	Bi-weekly	96-gallon wheeled carts (paper bags for overage)	Berkeley Transfer Station and Grover	Yes, commercial
Castro Valley Sanitary District	WMAC	Weekly	32-gallon cart	Davis Street/Gilton Resource Recovery Facility	Yes, residential
Dublin	WMAC	Weekly	64-gallon cart	Altamont Landfill	No
Emeryville	-	-	-	-	Adding yard waste program
Fremont	BFI	Weekly	64-gallon cart	Newby Island	Planned for 2002, residential
Hayward	WMAC	Weekly	64-gallon cart	Davis Street	Planned for 2002, commercial
Livermore	WMAC	Bi-weekly	101-gallon cart	Altamont Landfill	Planned for 2002, residential and commercial
Newark	WMAC	Weekly	64-gallon cart	Tri-Cities Landfill	No
Oakland	WMAC	Bi-weekly	64-gallon cart	Davis Street	Yes, commercial
Oro Loma Sanitary District	WMAC	Weekly	32-gallon cart	Davis Street, various end users	No
Piedmont	Republic Services	Bi-weekly	32-gallon cart	West Contra Costa Landfill	No
Pleasanton	PGS	Bi-weekly	35-gallon cart	Pleasanton Transfer Station, then to the Central Valley for agricultural purposes	Pilot planned for 2003, residential

Jurisdiction	Service Provider	Frequency	Container	Destination	Food Waste
San Leandro	ACI	Weekly	96-gallon cart	A variety of facilities, depending on pricing	Planned 2002, residential
Union City	Tri-CED	Bi-weekly	96-gallon cart	Tri-Cities Landfill	Planned 2003, residential
Unincorporated Alameda County	WMAC	Weekly	32- or 96-gallon carts	Davis Street	No

Organics Diversion Programs

All jurisdictions except for Emeryville have residential green waste (also called 'yard waste') collection programs. Emeryville is planning their program. Food waste and contaminated paper have been added to green waste as acceptable materials in Castro Valley Sanitary District's program. Food waste is being planned or considered by a number of other jurisdictions for addition to their green waste collection programs. Table 2-10 summarizes organics diversion programs.

Non-Disposal Facilities [NDFs]

Although diversion of materials occurs through numerous other means as described in the commercial recycling section later, jurisdictions are required to report diversion achieved through publicly-sponsored programs and through Non-Disposal Facilities (facilities that may provide material recovery & diversion, but that require a solid waste facilities permit). Table 2 - 10 below, provides a summary of those Non-Disposal Facilities listed in Alameda County jurisdictions' Non-Disposal Facility Elements [NDFEs].

TABLE 2-11

NDFs listed in Alameda County Jurisdictions' NDFEs

JURISDICTION	EXISTING IN JURISDICTION	PROPOSED IN JURISDICTION	EXISTING OUTSIDE OF JURISDICTION	PROPOSED OUTSIDE OF JURISDICTION
Alameda			1) Davis Street MRF/ T.S. 2) 77th Ave. MRF/ T.S.	Compost Facilities@ 1) Altamont L.F. 2) Vasco L.F.
Albany			1) Davis Street MRF/ T.S.	
Berkeley	1) City of Berkeley SWMC	Construction Material Salvage & Plant Debris Processing @ 1) City of Berkeley SWMC	1) Marin RRC 2) W.CoCo L.F. Composting Fac.	
Dublin			1) Davis Street MRF/ T.S. 2) 77th Ave. MRF/ T.S. 3) Pleasanton MRF/ T.S.	Compost Facs. @ 1) Altamont L.F. 2) Vasco L.F.
Emeryville			1) Davis Street MRF/ T.S. 2) 77th Ave. MRF/ T.S.	MRFs/IPS Facs. @ 1) Berkeley T.S. 2) Davis Street 3) West CoCo RRF
Fremont	1) TCRDF 2) East Bay Recycling Services	1) Expansion of recovery operations on TCRDF site 2) Proposed new site for resource recovery/green waste/transfer	1) BFI- the Recyclery 2) Newby Island Compost Facility	1) Davis Street MRF/T.S. 2) Zanker Road Landfill 3) GreenWaste Recovery ....
Hayward			1) Davis Street MRF/ T.S.	
San Leandro	ACI Direct Transfer Station			

MRF: Material Recovery Facility
T.S. : Transfer Station
L.F. : Landfill
SWMC: Solid Waste Management Center
ACI: Alameda County Industries
W.CoCo L.F.: West Contra Costa Landfill
ACWMA IWMF: Alameda County Waste Authority Integrated Waste Management Facility
TCRDF: Tri-Cities Recycling & Disposal Facility

TABLE 2-11

NDFs listed in Alameda County Jurisdictions' NDFEs
(cont.)

JURISDICTION	EXISTING IN JURISDICTION	PROPOSED IN JURIS-DICTION	EXISTING OUTSIDE OF JURISDICTION	PROPOSED OUTSIDE OF JURISDICTION
Livermore			1) Davis Street MRF/ T.S. 2) 77th Ave. MRF/ T.S. 3) Pleasanton MRF/ T.S.	Compost Facs. @ 1) Altamont L.F. 2) Vasco L.F. 3) Grover Envmntl Prods. - Modesto
Newark			1) TCRDF	
Oakland	1) 77th Ave. MRF/ T.S.		1) Davis Street MRF/ T.S.	
Piedmont			1) Davis Street MRF/ T.S.	Facs. processing Compost Materials 1) City of Berkeley SWMC 2) ACWMA IWMF
Pleasanton	1) Pleasanton MRF/ T.S.			
San Leandro	1) Davis Street MRF/ T.S. 2) ACI Direct T.S.		1) 77th Ave. MRF/ T.S.	
Union City			1) TCRDF	
Unincorporated Alameda County			1) Davis Street MRF/T.S.	1) ACWMA IWMF 2) Altamont L.F. 3) Vasco L.F.

MRF: Material Recovery Facility
T.S. : Transfer Station
L.F. : Landfill
SWMC: Solid Waste Management Center
ACI: Alameda County Industries
W.CoCo L.F.: West Contra Costa Landfill
ACWMA IWMF: Alameda County Waste Authority Integrated Waste Management Facility
TCRDF: Tri-Cities Recycling & Disposal Facility

Countywide Household Hazardous Waste Program

This program was developed by the Alameda County Environmental Health Department, with policy direction provided by the - Alameda County Waste Management Authority and includes the operation of three permanent Household Hazardous Waste (HHW) collection facilities located in the northern, southern and eastern sections of the county. The facilities are located in Oakland, Hayward and Livermore.

In 1995 approximately (407 tons) of household hazardous waste (HHW) materials were processed through these facilities. This represented about 9,400 people and 11,300 households that were served. In FY 2001, over 1,000 tons were processed, serving 19,747 households. Approximately 85% of these materials were reused or recycled. These facilities serve all Alameda County jurisdictions. This program also includes countywide public education and information to increase awareness of HHW, the advantages of safe disposal practices, and safer substitutes to toxic household products. Section 6 provides a more detailed description of this program.

Commercial Recycling Programs

Most recycling from commercial generators occurs outside of municipally sponsored programs. A summary of commercial recycling arrangements for each jurisdiction is presented in Table 2-12. The Table lists the commercial diversion rate that is reported by the jurisdictions for their municipally sponsored programs.

Agency staff assist member agencies who are going out to bid for new collection franchises or renegotiating existing ones, to include contract provisions that help to maximize commercial recycling. These provisions include requiring service providers to provide a minimum level of recycling for all businesses and including the costs for that in the commercial refuse rate and non-exclusive collection of commercial recyclables. Additionally, the Agency works in conjunction with its member jurisdictions to identify medium and large businesses to target for comprehensive environmental assessments and technical assistance to reduce waste. The Source Reduction and Recycling Plan, attached as an Appendix, provides more detail on Agency programs to reduce business waste.

Several cities contract with private collection companies to pick up their recyclables from municipal facilities. Many commercial and industrial businesses in the County have their recyclables collected by private companies, or ship their recyclables to private recycling companies or processing facilities (paper companies, woodwaste facilities). Both in 1990 and currently, this private sector activity accounts for the bulk of commercial recycling in Alameda County. A robust infrastructure of hundreds of recycling and reuse businesses exists in Alameda County.

Table 2-12 Approaches to Providing Commercial Recycling

Jurisdiction	Population	Number of Businesses	Commercial Refuse	Commercial Recycling	Reported Municipally Sponsored Commercial Diversion Rate[1]
Alameda	73,713	1,924	Exclusive franchise	Open competition Small business recycling through contractor	2%
Albany	17,836	510	Exclusive franchise	Open competition Contractor provides service on request	12%
Berkeley	109,463	4,270	Municipal collection Non-exclusive franchise for roll-off	Open competition Free recycling through City	5%
Castro Valley Sanitary District	47,195	657	Exclusive franchise	Open competition Service offered through contractor	1%
Dublin	32,519	857	Exclusive franchise	Open competition Contractor provides service on request	7%
Emeryville	7,311	684	Exclusive franchise	Open competition	0%
Fremont	208,026	5,479	Exclusive franchise	Open competition Small business recycling through contractor	4%
Hayward	129,610	4,201	Exclusive franchise	Open competition Small business recycling through contractor	1%
Livermore	74,303	1,842	Exclusive franchise	Open competition Free recycling through contractor	10%
Newark	43,043	1,165	Exclusive franchise	Open competition Service offered through contractor	5%
Oakland	402,104	10,581	Exclusive franchise	Open competition Small business recycling through contractor	0%
Oro Loma Sanitary District	70,117	1,293	Exclusive franchise	Exclusive franchise	0%
Piedmont	11,625	233	Exclusive franchise	Open competition Service offered through contractor	41%

[1] For member agencies with zero percent, either commercial diversion from municipal programs is not tracked or data does not distinguish residential and commercial diversion through municipal programs.

Jurisdiction	Population	Number of Businesses	Commercial Refuse	Commercial Recycling	Reported Municipally Sponsored Commercial Diversion Rate[1]
Pleasanton	65,930	2,750	Exclusive franchise	Exclusive franchise	0%
San Leandro	76,736	1,855	Exclusive franchise	Exclusive franchise Sharply reduced refuse rates for businesses that recycle	4%
Union City	67,240	1,075	Exclusive franchise	Exclusive franchise	2%
Unincorpor-ated Alameda County	17,531	170	Exclusive franchise in some areas Unregulated in some areas	Open competition	0%

7. Exempt and Unpermitted Solid Waste Facilities

Present regulations require solid waste facility permits for sanitary landfills, transfer stations, and any other processing facilities or materials recovery facilities that generate residual waste in the amount of 15 cubic yards or more per day. Any other facility that does not fall into the above-mentioned categories is currently exempt from the solid waste facilities permit requirement.

State regulations require that facilities located within the county that are exempt from a solid waste facilities permit or have received an exclusion must be identified in the Siting Element with: 1) reason for exemption/exclusion; 2) amount and type of materials recovered/processed and 3) operator/owner name.

The information contained in this section is based on available data provided by the Alameda County Health Agency (the Local Enforcement Agency for Alameda County). Certain information for some facilities, such as the amount of materials recovered or processed and closure plans are not available at this time. The Alameda County Health Agency is in the process of developing a more comprehensive list of solid waste facilities. The Alameda County Health Agency will provide more information on these facilities as it becomes available.

TABLE 2 - 13

EXEMPTED SOLID WASTE FACILITIES

SWIS [1] NO. & NAME	OWNER/ OPERATOR	SITE ADDRESS	WASTE TYPES RECEIVED	REASON FOR EXEMPTION
01-AA-0272 Jess Ranch (C-6019)	Joseph & Connie Jess/ FutureTech Environmental Svcs.	15850 Jess Ranch Road (off Grant Line Rd @ I-580) Livermore	Waste water treatment sludge; applied to agriculture land	Environmental impacts reduced to insignificant levels with mitigations; does not change the background chemistry of the land.
01-AA-0273 Marciel Ranch	Marciel/ FutureTech Environmental Svcs.	12371 Tesla Road Livermore	Waste water treatment sludge; applied to agriculture land	Environmental impacts reduced to insignificant levels with mitigations; does not change the background chemistry of the land.

[1] Solid Waste Information System.

8. Closed or Inactive Facilities

All of the closed or inactive facilities listed in Table 2-14 below are permitted facilities.

TABLE 2 - 14

CLOSED OR INACTIVE SOLID WASTE FACILITIES

SWIS NO. & NAME	OWNER/ OPERATOR	SITE ADDRESS	WASTE TYPES RECEIVED	CLOSURE DATE	CLOSURE PLANS
01-AA-0001 Turk Island Disposal Site	Joe Smith, Turk Island Co.	32505 Union City Blvd., Union City	Mixed Municipal, C&D	7/1/86	Park
01-AA-0004 West Beach Sanitary Landfill	U.S. Navy	SW corner of Alameda Naval Air Station, Alameda	Mixed Municipal, C&D	3/1/78	DTSC Site
01-AA-0006 Davis Street Sanitary Landfill	Oakland Scavenger Co./ East Bay Reg.Park Dist.	West end of Davis St., San Leandro	Mixed Municipal, C&D, Tires, Sludge	12/80	Transfer Station / Oyster Bay Regional Park
01-AA-0011 Albany Landfill	City of Albany	Foot of Buchanan Street, Albany	C&D	1/84	Open Space
01-AA-0012 City of Alameda Disposal Site	City of Alameda	Adjacent to San Leandro Channel, No. of Doolittle Dr., Alameda	Mixed Municipal, C&D, Yard Clippings	02/81	Park
01-AA-0015 City of Piedmont	City of Piedmont	NW of Moraga Ave & Red rock Rd., Piedmont	C&D Green waste	1988	Sports Field
01-AA-0020 Pleasanton Waste Disposal Site	Pleasanton Garbage Service	2512 Vineyard Ave., Pleasanton	C&D, Inerts, White Goods, Mixed Municipal	1976	Transfer Station
01-AA-0074 San Leandro Marina Golf Course	City of San Leandro	13800 Neptune Dr. San Leandro	Mixed Municipal	1977	Golf Course
01-AA-0271 Chabot Golf Course Fill	City of Oakland, Parks Dept.	End of Golf Links Road, Oakland	C&D, Yard Clippings	1990	Driving Range
01-AC-0001 Berkeley Landfill	City of Berkeley	Foot of Virginia St., Marina, Berkeley	C&D, Mixed Municipal, Haz. Mats., Clippings	1984	Park/ Transfer Station

TABLE 2 - 14

CLOSED OR INACTIVE SOLID WASTE FACILITIES
(cont'd.)

SWIS NO. & NAME	OWNER/ OPERATOR	SITE ADDRESS	WASTE TYPES RECEIVED	CLOSURE DATE	CLOSURE PLANS
01-CR-0001 All Cities Landfill	KOFY/ HARD/ ACFCD	KOFY Site; North of West end of W. Winton Ave., Hayward	Mixed Municipal	1956	Open Space/ Park
01-02-0031 Norris Canyon Solid Waste Disposal Site	The First Republic Bancorp, Inc.	87499 (8795) Norris Canyon Rd, Castro Valley	Mixed Municipal, C&D	Unknown	Small canyon fill; open space
01-CR-0032 Del Valle	Calif. Dept. of Water Resources	¼ mi. NW of Del Valle Dam, Livermore	Mixed Municipal, C&D	Unknown	Open Space
01-CR-0002 Emeryville Ashby	City of Emeryville	West end of Ashby Ave, Emeryville	Mixed Municipal		Park
01-CR-003 Emeryville Dump	City of Emeryville	Ashby Ave, West of I-80/ 580, Emeryville	Mixed Municipal, C&D		Open Space
01-CR-0033 Galbraith Golf Course	Port of Oakland	West of DoolittleDr, South of Airport Dr, Oakland	Mixed Municipal	1965	Dredge project underway to provide new cover
01-CR-0019 Hexel	F & P Properties	Trevarno Rd., Livermore	Mixed Municipal, C&D, Indust.	1977	Open Space
01-CR-0004 Livermore Dump	City of Livermore	SW of Raymond Rd. & Ames St., Livermore	Mixed Municipal, C&D, Indust.	2/63	Open Land
01-CR-0019 Mowry Rd.Site	Paccar, Inc.	8100 Mowry Ave., Newark	Mixed Municipal	1967	Industrial land uses
01-CR-0034 North Port of Oakland Refuse Disposal Site	Port of Oakland	SE of Doolitte Dr. & Harbor Bay Pkwy, Oakland	Mixed Municipal	1960	Open land, Practice Field
01-CR-0005 Old W Winton Landfill	City of Hayward	South of West end of W. Winton Ave, Hayward	Mixed Municipal	1974	Park
01-CR-0035 Pietronave Landfill	Michael & Linda Dominisse	2500 Vineyard Ave, Pleasanton	Mixed Municipal		Part of original Pleasanton Landfill; Land use
01-CR-0026 Sandia, Navy Landfill	Dept. of Energy	7011 East Ave., Livermore	Inert Wastes	1960	Open Space

III. COUNTYWIDE NEEDS

This section tabulates Alameda County's major waste management needs. "Needs" are defined as the gaps between existing conditions and desired goals. There are two main goals of the CoIWMP, as mandated by State law:

- achieve a high degree of waste diversion
- provide adequate, safe landfill capacity.

Countywide Waste Disposal
Summary 2000 data on countywide waste disposal and diversion are found in Figures 3-1 and 3-2.

WASTE DIVERSION NEEDS

The Goal

Alameda County's overall goal is *maximum feasible waste reduction* (Section 5, Goal 2). Here, the AB 939 goal of "50% by 2000" is the legal *minimum* that applies to individual jurisdictions. In fact, as shown in Table 3-1, most jurisdictions in this County meet or exceed this goal.

This Element includes a *countywide* waste diversion goal of "75% by 2010." This goal takes into account programs implemented and planned by Alameda County jurisdictions as noted in SRRE annual updates, added programs that the Authority is implementing on a countywide basis, and the ambitious 75% and beyond "longer-term" goal found in County Measure D, passed by the voters in 1990.

Where We Stand

Figure 3-1 summarizes the amounts of waste delivered to transfer stations or landfills in Alameda County for disposal (referred to as In-county disposal). The 2000 Waste Characterization was designed to provide detailed information regarding in-county disposal of residential, commercial, roll-off, and self-haul waste streams. In-county disposal represents about 93 percent of the total waste generated within Alameda County. Note that almost half of the total disposal is roll-off or self-haul in origin and that these two streams exceed the total commercial waste stream in every jurisdiction. Commercial waste is defined as that generated by businesses having front-loader (bin) collection service. Some large businesses have roll-off service instead of, or in addition to, bin service. However, most roll-off service is used for non-scheduled clean-up and construction/demolition projects.

Countywide Waste Diversion in 2000

Table 3-3 lists the year 2000 diversion rate as reported to the CIWMB. Alameda County's overall waste diversion rate, calculated using the CIWMB methodology was 54% in 2000 (see Table 3-4). Alameda County's waste diversion rate, using the Source Reduction and Recycling Board methodology (which counts ADC as disposal not diversion), is 50%. This figure is based on a compilation of the figures for individual jurisdictions

shown in Table 3-4, including those who submitted new base year analyses in year 2000. The basis for these figures is the diversion rate submitted by the jurisdictions, which have followed the CIWMB method for calculating diversion.

Table 3-4 uses the diversion rates reported by each jurisdiction to calculate (estimate) the total amount diverted from landfills in 2000. The calculation of total tons diverted is based on the equation:

Generation = Disposal + Diversion

The Castro Valley Sanitary District has not estimated its diversion rate separately from Unincorporated Alameda County; therefore, Table 3-4 has been developed assuming that the diversion rate for Castro Valley is equal to the Unincorporated County rate. The calculation gives an approximation of the amount (tons) represented by the diversion rate. Because the diversion rates are calculated using CIWMB adjustment factors (such as employment, population, taxable sales, and Consumer Price Index), these amounts do not necessarily represent actual tons diverted. Table 3-4 also includes a calculation of the fraction of the total diversion that is municipally controlled. Except for the jurisdictions that are primarily residential, using the CIWMB definitions and methods, the municipally controlled diversion typically represents less than 20 percent of calculated total diversion.

Characteristics of Countywide Waste Diversion in 2000

2000 data is provided in Tables 3-1 and 3-2. These data are compiled from the 2000 Waste Characterization study.

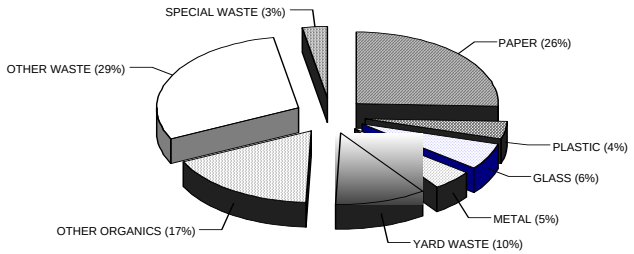
Most of the municipal effort to separately collect and divert materials into recycling is being directed at residential waste generation. Table 3-5 shows the residential disposal and diversion rates for each jurisdiction expressed in pounds per person per day.

The municipal collection programs are doing a good job of channelling the targeted materials into diversion. Table 3-6 presents a summary of residential capture rates for each jurisdiction. The Table indicates both the fraction of the total material-type category (e.g. all paper) collected and diverted from landfilling by the municipal program as well as the fraction of the specific materials defined as eligible for collection by the program (e.g. newspaper, high-grade, and mixed paper, but not milk cartons or other plastic-coated paper).

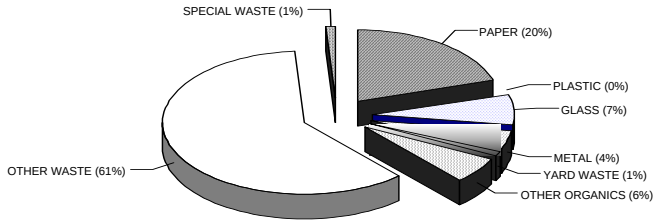
FIGURE 3 - A

General Material Generated, Diverted & Disposed In Alameda County - 1990

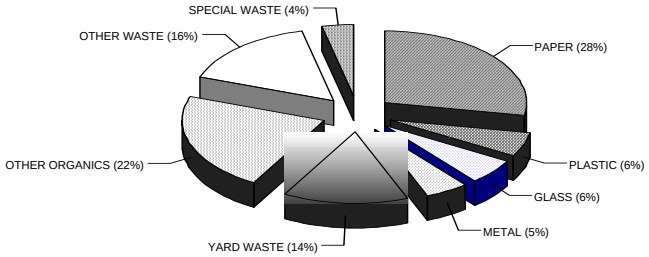
Generation



Diversion



Disposal



Source: Compilation of information from each locally adopted SRRE.
All %'s are based on estimated tonnages.

TABLE 3 - 1

2000 In-County Solid Waste Disposal Tonnage by Jurisdiction

Jurisdiction	Total Residential Disposal	Total Commercial Disposal	Self-Haul and Roll-off[1]	Total In-County Disposal
Alameda	21,435	10,784	16,203	48,422
Albany	4,749	2,209	2,945	9,903
Berkeley	35,904	15,891	41,007	92,802
Castro Valley Sanitary District	12,618	6,397	11,922	30,937
Dublin	8,520	11,732	15,528	35,780
Emeryville	1,986	9,953	12,211	24,150
Fremont	52,013	52,639	95,270	199,922
Hayward	37,392	53,534	87,591	178,517
Livermore	30,695	24,454	71,035	126,184
Newark	9,974	13,652	28,931	52,557
Oakland	137,493	90,360	164,603	392,456
Oro Loma Sanitary District	19,517	8,645	9,596	37,758
Piedmont	3,703	330	1,379	5,412
Pleasanton	27,798	16,059	81,349	125,206
San Leandro	34,258	23,656	68,493	126,407
Union City	16,060	13,749	25,472	55,281
Unincorporated Alameda County	1,460	355	9,178	10,993
Total	455,575	354,399	742,713	1,552,687

[1] Source: 2000 Waste Characterization Study, R.W. Beck

TABLE 3 – 2

2000 Residential and Commercial Diversion Tonnage as Tracked by Individual Member Agency

Jurisdiction	Residential Recycling Tons	Commercial Recycling Tons	Residential Yard Waste Tons	Commercial Yard Waste and Other Organics	Other (Bulky Item Pickup, City Facility Recycling)	Municipally Controlled Diversion (Tons)
Alameda	10,702	480	4,033	-	-	15,215
Albany	2412	805	710	-	-	3927
Berkeley	7,425	3,387	5,924	1,777	141	18,654
Castro Valley Sanitary District	6,446	-	5,323	-	120	11,889
Dublin	2,750	1,227	3,438	514	172	8,101
Emeryville	194	-	-	-	-	194
Fremont	20,489	2,685[1]	23,049	2,348	1,633	50,204
Hayward	8,666	-	12,313	836	207	22,022
Livermore[2]	7,561	6,466	9,792	2721	974	27,514
Newark	3,356	1,727	4,738	-	302	10,123
Oakland	28,950	-	26,161	-	1,119	56,230
Oro Loma S.D.	4,926	-	10,524	-	-	15,450
Piedmont	2,692	10	1,005	1,393	-	5,100
Pleasanton[3]	3,166	-	-	-	-	3,166
San Leandro[4]	5,719	4,124	6,358	781	-	16,982
Union City	4,419	548	4,995	-	498	10,460
Unincorporated Alameda County	209	-	314	-	-	523
Total	120,082	19,732	118,677	9,977	5,559	275,754

[1] Fremont commercial recycling tons excludes about 16,000 tons of recovered C&D material.

[2] Data is for 2001.

[3] Residential and commercial diversion data are combined.

[4] Data is for 2001.

Table 3 - 3

AB 939 Status

Jurisdiction	2000 Diversion Rate Reported by Jurisdiction	Notes
Alameda	65%	
Albany	62%	
Berkeley	49%	Disposal tonnage deductions claimed
Castro Valley Sanitary District[1]	65%	
Dublin	56%	2000 New Base Year (submitted)
Emeryville	48%	Rural Reduction (submitted)
Fremont	62%	-
Hayward	50%	-
Livermore	53%	2000 New Base Year (submitted)
Newark	53%	-
Oakland	51%	2000 New Base Year (submitted)
Oro Loma Sanitary District	71%	-
Piedmont	63%	-
Pleasanton	48%	2000 Time Extension (submitted)
San Leandro	52%	-
Union City	61%	-
Unincorporated Alameda County	65%	-

TABLE 3 – 4

Calculated 2000 Diversion Tonnages[1]

Jurisdiction	Diversion Rate[2]	Total Disposal Tons	Total Calculated Diversion Tons	Municipally Controlled Diversion (Tons)[3]	Percent of Diversion Not Municipally Controlled[4]
Alameda	65%	49,391	91,726	15,215	83%
Albany	62%	10,779	17,587	3,927	78%
Berkeley	49%	139538	134066	18,654	86%
Castro Valley Sanitary District	65%[5]	30,936	57,453	11,889	77%
Dublin	56%	35,811	45,578	8,101	82%
Emeryville	48%	37,438	34,558	194	99%
Fremont	62%	205,246	334,875	50,204[6]	79%
Hayward	50%	180,363	180,363	22,022	88%
Livermore	53%	126,264	142,383	27,514	81%
Newark	53%	52,632	59,351	10,123	83%
Oakland	51%	422,484	439,728	56,230	87%
Oro Loma Sanitary District	71%	37,758	92,442	15,450	83%
Piedmont	63%	5,761	9,809	5,100	48%
Pleasanton	48%	126,344	116,625	3,166	97%
San Leandro	52%	143,694	155,669	16,982	89%
Union City	61%	57,029	89,199	10,460	89%
Unincorporated Alameda County	65%	12,496	23,207	523	98%
Countywide Total	55%	1,673,964[7]	2,024,619	275,754	86%

[1] Diversion tons and percentage of diversion are approximate due to rounding.

[2] As reported by member agency

[3] Includes all tonnages as tracked and reported by each member agency.

[4] Percent of total calculated diversion not directly municipally controlled.

[5] CVSD does not calculate an independent figure. Exhibit uses unincorporated county percentage.

[6] Excludes approximately 16,000 tons of C&D diversion

[7] Includes out-of-county disposal

Table 3-5

Disposal and Diversion Rates by Jurisdiction

Jurisdiction	Population	Residential Disposal Rate (Lbs/Person/Day)	Recycling (Lbs/Person/Day)	Plant Debris (Lbs/Person/Day)
Alameda	73,713	1.8	0.8	0.3
Albany	17,836	1.6	0.7	0.2
Berkeley	109,463	2.3	0.4	0.3
Castro Valley Sanitary District	47,195	1.8	0.7	0.6
Dublin	32,519	2.0	0.5	0.6
Emeryville	7,311	2.7	0.1	0.0
Fremont	208,026	1.9	0.5	0.6
Hayward	129,610	2.2	0.4	0.5
Livermore	74,303	3.5	0.6	0.7
Newark	43,043	1.8	0.4	0.6
Oakland	402,104	2.4	0.4	0.4
Oro Loma Sanitary District	70,117	1.7	0.4	0.8
Piedmont	11,625	1.9	1.3	0.5
Pleasanton[1]	65,930	3.4	0.3	0.0
San Leandro	76,736	3.4	0.4	0.5
Union City	67,240	1.6	0.4	0.4
Unincorporated Alameda County	17,531	1.3	0.1	0.1
Countywide Totals and Averages	1,454,302	2.2	0.4	0.4
Countywide Mean		1.9	0.5	0.5

[1] Does not separately calculate recycling and plant debris diversion.

Table 3-6

Summary of Comparative Capture Rates—Residential Diversion

Jurisdiction	Paper		Commingled Containers[1]		Yard Waste		Total	
	% of Program Material Diverted	% of Category Diverted	% of Program Material Diverted	% of Category Diverted	% of Program Material Diverted	% of Category Diverted	% of Program Material Diverted	% of Category Diverted
Alameda	83%	58%	75%	33%	87%	85%	83%	58%
Albany	75%	54%	67%	42%	88%	78%	76%	55%
Berkeley	67%	30%	61%	18%	84%	72%	73%	37%
Castro Valley Sanitary District	85%	54%	72%	45%	96%	94%	87%	64%
Dublin	42%	42%	61%	30%	94%	91%	65%	57%
Emeryville	76%	18%	58%	7%	n/a	n/a	72%	13%
Fremont	72%	47%	48%	28%	98%	93%	80%	59%
Hayward	68%	36%	49%	24%	95%	90%	77%	51%
Livermore	34%	34%	46%	25%	96%	94%	56%	50%
Newark	83%	44%	32%	27%	97%	95%	78%	59%
Oakland	51%	35%	51%	24%	74%	68%	60%	42%
Oro Loma Sanitary District	60%	31%	36%	29%	97%	97%	74%	57%
Piedmont	71%	67%	56%	47%	50%	57%	62%	60%
Pleasanton	24%	15%	30%	13%	n/a	n/a	25%	14%
San Leandro[2]	n/a	n/a	48%	27%	92%	86%	64%	42%
Union City	69%	40%	60%	32%	94%	94%	77%	54%
Unincorporated Alameda County[3]	n/a	n/a	30%	30%	62%	62%	44%	36%

[1] Commingled includes glass, metal (including white goods) and plastic.

[2] Commingled diversion includes residential paper.

[3] Commingled diversion includes glass, metal (including white goods), and plastic.

Disposal-Based Accounting

The complex waste diversion system, the multitude of businesses that recycle, and the difficulty in measuring the results of various source reduction programs, would make any effort to actually *count* the materials that are reduced, recycled or reused extremely difficult. Such an effort would also require that the State institute a burdensome record keeping and reporting procedure for thousands of businesses and government programs.

Instead, under California's "disposal based accounting," success at meeting waste diversion goals is measured by the tonnage of waste disposed in landfills, and comparing this to target disposal tonnages, based on waste diversion goals. Countywide Element Policy 2.1.3. (see Section 5), requires that monitoring be implemented at each landfill and transfer station. The Authority has instituted a standardized program of weighing and reporting that was adopted by Authority Ordinance 95-01.

Target Landfill Disposal Tonnages

As indicated in Table 3-3, Alameda County as a whole met the State-mandated 50% diversion rate for the year 2000. In order to meet the Measure D goal of 75% diversion by the year 2010, disposal must be reduced to about 1,197,000 tons in that year, from the 1.67 million tons disposed in 2000. Table 3-7 shows the targeted disposal quantities for 2010 that would enable each jurisdiction and the County as a whole to meet the Measure D goal.

TABLE 3 - 7

Alameda County
Actual Tonnage Disposal Comparison with Maximum Allowable Tonnages
For Measure D 75 % Diversion Goal

Jurisdiction	1990 Estimated Disposal [1] (Tons)	1995 Actual Disposal [1] (Tons)	2000 Actual Disposal [1] (Tons)	2010 75% Goal[2] Max. Allowable Disposal (Tons)
Uninc. Alameda Co.	14,937	28,679	12,496	11,053
Castro Valley S.D.	55,475	31,499	30,936	27,364
Oro Loma S.D.	98,178	58,456	37,758	38,653
Total Uninc. Alameda County	168,590	118,634	81,190	77,070
Alameda	96,383	58,494	49,391	43,689
Albany	18,483	10,324	10,779	8,928
Berkeley	100,285	123,519	139,538	90,591
Dublin	41,707	34,862	35,811	26,312
Emeryville	26,816	15,947	37,438	23,908
Fremont	285,324	183,021	205,246	169,997
Hayward	215,837	144,162	180,363	119,076
Livermore	80,621	82,091	126,264	87,814
Newark	58,298	53,209	52,632	36,605
Oakland	583,298	501,145	422,484	283,722
Piedmont	9,486	6,540	5,761	4,875
Pleasanton	105,692	104,140	126,344	80,684
San Leandro	140,782	74,847	143,694	98,187
Union City	72,613	58,297	57,029	46,254
Countywide Totals	2,004,215	1,569,232	1,673,964	1,197,712

1 Source: 1995 and 2000 Waste Characterizations.

2 Assumes a 43% growth in waste generation over the period from 2000-2010.

Table 3-8

Alameda County Solid Waste Disposal and Capacity Needs Projection
Based on Achieving Countywide Waste Reduction Goals as Specified by CoIWMP Policies

Year	Tri-Cities Disposal[1,3] (Tons)	Union City & Newark[1,3] (Tons)	Vasco Rd Disposal[2,3] (Tons)	Vasco Rd. Capacity (Tons)	Altamont Disposal[3,4] (Tons)	Altamont Capacity (Tons)	Total In-County Disposal (Tons)	In-County Capacity (Tons)	In-County Capacity (Cu Yd)
2000[5]	293,004		477,826	14,215,261	1,489,508	69,076,753	2,260,338	83,886,814	115,308,335
2001[5]	281,374		430,261	13,785,000	1,446,753	67,630,000	2,158,388	81,818,900	112,465,842
2002	275,747		421,656	13,363,344	1,432,363	66,197,637	2,129,766	79,689,134	109,538,329
2003	270,232		413,223	12,950,122	1,418,261	64,779,375	2,101,716	77,587,419	106,649,373
2004	264,827	92,689	404,958	12,545,163	1,497,131	63,282,244	2,166,916	75,420,503	103,670,794
2005		90,836	396,859	12,148,304	1,481,734	61,800,511	1,878,593	73,541,910	101,088,536
2006		89,019	388,922	11,759,382	1,466,644	60,333,866	1,855,566	71,686,344	98,537,929
2007		87,239	381,143	11,378,239	1,451,857	58,882,009	1,833,000	69,853,343	96,018,341
2008		85,494	373,521	11,004,718	1,437,365	57,444,644	1,810,886	68,042,458	93,529,151
2009		83,784	366,050	10,638,668	1,423,163	56,021,481	1,789,213	66,253,244	91,069,752
2010		82,108	358,729	10,279,939	1,409,245	54,612,236	1,767,974	64,485,270	88,639,546
2011		82,108	358,729	9,921,210	681,977	53,930,259	1,040,706	63,444,564	87,209,022
2012		82,108	358,729	9,562,481	681,977	53,248,281	1,040,706	62,403,857	85,778,498
2013		82,108	358,729	9,203,752	681,977	52,566,304	1,040,706	61,363,151	84,347,974
2014		82,108	358,729	8,845,023	681,977	51,884,327	1,040,706	60,322,444	82,917,449
2015		82,108	358,729	8,486,293	681,977	51,202,350	1,040,706	59,281,738	81,486,925
2016		82,108	358,729	8,127,564	681,977	50,520,372	1,040,706	58,241,032	80,056,401
2017		82,108	358,729	7,768,835	681,977	49,838,395	1,040,706	57,200,325	78,625,877
2018		82,108	358,729	7,410,106	681,977	49,156,418	1,040,706	56,159,619	77,195,352
2019		82,108	358,729	7,051,377	681,977	48,474,441	1,040,706	55,118,913	75,764,828
2020		82,108	358,729	6,692,648	681,977	47,792,464	1,040,706	54,078,206	74,334,304
2021		82,108	358,729	6,333,919	681,977	47,110,486	1,040,706	53,037,500	72,903,780
2022		82,108	358,729	5,975,189	681,977	46,428,509	1,040,706	51,996,793	71,473,256
2023		82,108	358,729	5,616,460	681,977	45,746,532	1,040,706	50,956,087	70,042,731
2024		82,108	358,729	5,257,731	681,977	45,064,555	1,040,706	49,915,381	68,612,207
2025		82,108	358,729	4,899,002	681,977	44,382,577	1,040,706	48,874,674	67,181,683
2026		82,108	358,729	4,540,273	681,977	43,700,600	1,040,706	47,833,968	65,751,159
2027		82,108	358,729	4,181,544	681,977	43,018,623	1,040,706	46,793,261	64,320,634
2028		82,108	358,729	3,822,815	681,977	42,336,646	1,040,706	45,752,555	62,890,110
2029		82,108	358,729	3,464,085	681,977	41,654,668	1,040,706	44,711,849	61,459,586
2030		82,108	358,729	3,105,356	681,977	40,972,691	1,040,706	43,671,142	60,029,062
2031		82,108	358,729	2,746,627	681,977	40,290,714	1,040,706	42,630,436	58,598,537
2032		82,108	358,729	2,387,898	681,977	39,608,737	1,040,706	41,589,730	57,168,013
2033		82,108	358,729	2,029,169	681,977	38,926,759	1,040,706	40,549,023	55,737,489
2034		82,108	358,729	1,670,440	681,977	38,244,782	1,040,706	39,508,317	54,306,965
2035		82,108	358,729	1,311,711	681,977	37,562,805	1,040,706	38,467,610	52,876,440
2036		82,108	358,729	952,981	681,977	36,880,828	1,040,706	37,426,904	51,445,916
2037		82,108	358,729	594,252	681,977	36,198,850	1,040,706	36,386,198	50,015,392
2038		82,108			1,040,706	35,158,144	1,040,706	35,345,491	48,584,868
2039		82,108			1,040,706	34,117,438	1,040,706	34,304,785	47,154,343
2040		82,108			1,040,706	33,076,731	1,040,706	33,264,078	45,723,819
2041		82,108			1,040,706	32,036,025	1,040,706	32,223,372	44,293,295
2042		82,108			1,040,706	30,995,319	1,040,706	31,182,666	42,862,771
2043		82,108			1,040,706	29,954,612	1,040,706	30,141,959	41,432,246
2044		82,108			1,040,706	28,913,906	1,040,706	29,101,253	40,001,722
2045		82,108			1,040,706	27,873,199	1,040,706	28,060,547	38,571,198
2046		82,108			1,040,706	26,832,493	1,040,706	27,019,840	37,140,674
2047		82,108			1,040,706	25,791,787	1,040,706	25,979,134	35,710,150
2048		82,108			1,040,706	24,751,080	1,040,706	24,938,427	34,279,625

Year	Tri-Cities Disposal[1,3] (Tons)	Union City & Newark[1,3] (Tons)	Vasco Rd Disposal[2,3] (Tons)	Vasco Rd. Capacity (Tons)	Altamont Disposal[3,4] (Tons)	Altamont Capacity (Tons)	Total In-County Disposal (Tons)	In-County Capacity (Tons)	In-County Capacity (Cu Yd)
2049		82,108			1,040,706	23,710,374	1,040,706	23,897,721	32,849,101
2050		82,108			1,040,706	22,669,667	1,040,706	22,857,015	31,418,577
2051		82,108			1,040,706	21,628,961	1,040,706	21,816,308	29,988,053
2052		82,108			1,040,706	20,588,255	1,040,706	20,775,602	28,557,528

Notes:

1) Fremont tonnage is assumed to go out of county after 2004; Union City and Newark go to Altamont.
2) Vasco Road tonnage is assumed to go to Altamont after 2037
3) Alameda County Tonnage is assumed to go down by 2% each year from 2002 until 2010.
4) SF tonnage of 727,268 is subtracted from Altamont tonnage as of 2011.
5) 2000 and 2001 numbers are actuals. Remaining numbers are estimates.

DISPOSAL CAPACITY NEEDS

The Goal

State law requires each CoIWMP to demonstrate sufficient permitted landfill capacity to meet the county's disposal needs for a minimum 15 years, commencing with the year in which the CoIWMP is submitted to the State Board. Thus, the Alameda County CoIWMP must show enough landfill capacity to last through the year 2018, or provide a plan for securing such capacity.

Determining Long-Term Landfill Capacity

To calculate the long-term need for landfill capacity, certain assumptions are needed regarding both the amount of capacity currently available and the future demand for that capacity. Historically, estimates of both capacity and usage have fluctuated widely due to changing conditions, which has frustrated attempts to calculate long-term needs with any precision.

Key variables affecting existing landfill capacity estimates are:

- Landfill Settlement - landfills densify with time under the weight of accumulated waste, thus increasing capacity. The amount of settlement varies with the waste composition, moisture content, initial compactive effort, depth-of-fill, and time.
- Technological, Operational and Design Changes - space is created by reducing landfill cover, using thinner cover materials, new excavation, and by placing the waste at a higher initial density through additional compacting effort.

Key variables affecting landfill demand or usage are:

- Waste Reduction - programs that divert waste from landfills by reducing, reusing or recycling/composting the materials.
- Economic Cycles - waste is a byproduct of increased production and consumption that comes with economic growth. Thus, the volume of waste can rise and fall with the normal business cycle.
- Changes in Population Growth.
- Lifestyle Changes - for example, waste increases with greater demand for take-out or pre-packaged foods.

- Import of Waste - local jurisdictions have limited control over import to privately-owned landfills.

- Rates charged by landfills, including government fees.

Existing Fully-Permitted Landfill Capacity
Estimated remaining refuse capacity as of the middle of 2001 at the three Alameda County landfills (see Table 2-8) is:

Tri-Cities Landfill - less than 1 million tons

Altamont Landfill - 67 million tons

Vasco Road Landfill - 14 million tons

Countywide Total - 81 million tons

This 2001 estimated capacity of 81 million tons has actually *increased* from the estimated 32 million tons in 1995. The main reasons for this increase are:
a) a vertical expansion at Tri-Cities Landfill from a maximum 100' in height to 150' in height; b) re-design of Altamont Landfill in conjunction with engineering changes required by new federal Subtitle D regulations; and c) settlement of the decomposing waste material.

In 2000, an expansion of Altamont Landfill was approved that when fully permitted would increase the total available capacity at Altamont to 50.25 million tons. However, more recent (2001) surveying indicates an estimated capacity revision to 67 million tons.

Projected Waste Tonnages
Table 3-8 projects demand for Alameda County landfill capacity through the year 2050. No adjustment is made for impacts of economic cycles. There is an assumed reduction in Alameda County waste disposal of 2.0% per year, for the 2000 - 2010 period. This reduction assumes progress toward the Measure D goal of 75 percent diversion. Existing agreements allowing for out-of-county import are included in the projections. Other possible import not yet approved, such as from San Francisco after the current 15 million ton agreement expires (estimated about year 2011), are not included. Significant volumes of import from Contra Costa County, while approved by the Authority, have not been included because import from Contra Costa County is currently considered unlikely due to available landfill capacity in that county.

The projections in Table 3-8 indicate in excess of 50 years of landfill capacity in Alameda County.

IV. COUNTYWIDE ISSUES

This section provides an overview of countywide solid waste issues that are likely to arise over the course of the planning period. The importance or relevance of a given issue will change over time. Thus, no attempt is made here to prioritize issues. However, this section does show the complexity of the challenges that face the County's integrated waste management system. The issues raised here are addressed by the policies developed in Section V and, in some cases, by the programs identified in Section VI.

WHAT ARE THE CHALLENGES?

This CoIWMP is prepared under a mandate of State law. This same law required cities and counties to achieve waste reduction rates of 25 percent by 1995 and 50 percent by 2000. State law also requires the County to plan for at least 15 years of landfill capacity. Most Alameda County jurisdictions have met the 50% diversion rate required by state law. The fundamental challenges in accomplishing high rates of diversion are:.

Solid waste is an environmental challenge.

Without proper handling and disposal, waste will pollute our soil, water and air. Waste management facilities designed to *reduce* pollution may *generate* impacts such as traffic, odors and vectors.

Solid waste is also a challenge of resource management.

Waste is a sign of inefficiency. In today's global economy, America competes with lower wage countries through greater productivity. This requires getting the most out of material inputs, more cost-effective manufacturing, lower disposal costs, and new revenue, and jobs, from secondary products. Simply put, the production of "garbage" is a bad business practice.

Solid waste poses an organizational challenge.

For many years, local governments were responsible for garbage collection and disposal, based on a narrowly-defined need to protect the public health and safety. Today, the role of local government is expanding to address the broad environmental and economic aspects of waste. There is a need to promote public participation, develop appropriate plans and strategies, organize financial resources and develop effective public-private relationships. There is a critical need for cooperation among jurisdictions, since waste crosses local boundaries. There is also a need for cooperation among the local, regional, State and federal agencies responsible for aspects of waste management.

In trying to meet these challenges, a number of **public policy issues** emerge. These are identified on the following pages. After each issue,

relevant policies selected to deal with the issue, found in Section V of this plan, are cited.

ISSUES RELATING TO LANDFILLS

Depletion of Capacity

The county's three landfills combined have in excess of 50 years of permitted capacity left. However, when required, new landfills are hard to site due to environmental constraints and significant opposition. Stringent environmental standards also make new landfills much more costly. Further, a recently adopted initiative applicable to the unincorporated area of the County limits expansion of existing landfills to no more than 15 additional years on a per landfill basis (two of the three landfills are located in the unincorporated areas of the County and the third landfill has only 1 year of remaining capacity). Nevertheless, and despite future waste reduction efforts, new landfill capacity may need to be developed over time.

Environmental Impacts

Landfills are the subject of much public concern. Surface and ground water contamination are possible, though there has been no known major problem in Alameda county. Potential impacts such as litter, dust, odors, traffic, noise and vectors require ongoing mitigation. There is also concern over land use and visual effects on nearby agricultural open space and parks.

Facility Wastesheds

In this CoIWMP each of the three landfills under Authority jurisdiction may receive waste from any source from within the County or any of the cities in the County. A change in wasteshed, whether it involves waste from Alameda County or elsewhere, can have significant impacts on the environment, on facility operations and lifespan and on Authority planning efforts. Because the Authority is aware of the movement of waste within the County due to jurisdiction over facility changes, waste characterization studies, involvement in franchise agreements and its projections of in-County wastestreams, individual review of changes of wastesheds within the County would cause unnecessary delay and unnecessary cost. The same is not true of waste generated outside of the County. Therefore, any new or changed wasteshed located outside of Alameda County is subject to the CoIWMP conformance process."

Ownership

The three landfills under the jurisdiction of the Authority are owned by large firms. There is concern that this may limit the ability of local governments to negotiate fair rates for disposal and other related services and that there may be insufficient public control of landfill utilization and capacity. In recent years there has been greater competition for franchises but the number of in-County landfills has not changed.

Special Wastes

Special wastes, particularly treated sewage sludge, are not "hazardous" but do require special handling, whether for disposal or recovery. It has been difficult and costly to find facilities willing and able to accept these special wastes.

Hazardous Waste Management

While hazardous wastes are banned from solid waste landfills, small amounts do slip in. Load monitoring at transfer stations or landfills, and separate hazardous waste collection/drop-off programs, reduce the amount of hazardous wastes in landfills. Toxic leachate that is generated at landfills is collected and treated. Longer term, the County Hazardous Waste Management Plan outlines a program for reducing the production of hazardous wastes and safely treating wastes that cannot be eliminated.

Contingency Planning

Natural catastrophes such as earthquakes and fires, and man-made events such as labor disputes, may disrupt the waste management system. Contingency planning is needed for each facility and program in order to protect the public safety and environment.

Alternative Daily Cover

Landfills are made up of "cells" containing wastes. At the end of each day, that day's waste is covered with a layer of material, typically soil. This "daily cover" serves several purposes including vector control, odor control and creation of "firewalls" within the landfill structure. New cells are created each day on top of older cells. The State allows the use of "Alternative Daily Cover" materials in place of soil. These include construction and demolition debris, auto shredder fluff, shredded tires, wastewater treatment biosolids and yard trimmings. There is debate over whether some of these wastes function properly as landfill daily cover, whether using these wastes as daily cover should count as disposal or waste diversion for purposes of meeting AB 939 waste reduction goals, and

whether public agencies should encourage use of some of these wastes for other, more beneficial uses. The Alameda County Waste Management Authority encourages the maximum composting of yard trimmings and green waste and maximum recycling of construction and demolition debris as a clear priority for these materials over their use as ADC.

ISSUES RELATING TO WASTE REDUCTION

The Hierarchy of Waste Management

Today, waste is viewed as a lost *resource*. The alternative to disposing this resource at a landfill is waste reduction. Waste reduction programs are prioritized in the "Hierarchy of Waste Management":

1. **Source Reduction** is producing less waste in the first place. Examples are reusing canvas shopping bags and ceramic cups; buying durable as opposed to disposable goods; buying used goods at thrift stores; home composting of yard waste; less packaging and more efficient use of materials in production. Source reduction sometimes requires little public financing and allows broad public participation. However, it requires extensive public education and it is difficult to measure its effectiveness.

2. **Waste Diversion** is recycling or composting that recovers waste for use in new products. Included are drop-off, buy-back, and curbside collection programs; large scale material recovery facilities [MRFs] and composting. Diversion not only saves landfill space, it saves resources by replacing virgin materials in new products. Recycling programs are good sources of jobs for less-skilled workers. However, these programs can be costly, difficult to site, and are subject to wide swings in the market price for the recovered materials. Sometimes, markets may not be available at all.

3. **Transformation** usually refers to processes where unsorted or partly-sorted waste is converted into energy, either by direct incineration or by creating a fuel pellet. Due to concerns relating to air pollution, ash disposal and impacts on recycling programs, such facilities are not proposed in this plan. However, facilities that produce fuel from a single source, such as wood chips, are considered as an alternative if there is no other market for the material.

4. **Sanitary Landfill**, the least preferred priority, is needed to safely manage waste remaining after the other methods have been used. Landfills may involve environmental problems, long-term liability and high costs, especially if the external and intangible costs of disposal are included. The modern landfill is preferred to illegal dumping and mass burn incineration. It may also offer siting opportunities for compatible facilities, such as composting.

Residential Versus Commercial Recycling Programs

For many jurisdictions, the amount of waste generated by commercial, industrial and institutional sources is greater than that generated by residences. However, programs that increase the cost of doing business for the job-generating sectors may be resisted due to the potential impact on a county's competitive economic position. There is a need to demonstrate that waste reduction, including source reduction, results in cost savings for businesses.

Type of Waste Diversion Program Operator

Through franchises, regulations and monitoring requirements, public agencies select or influence the type of program operator. Often, large private operators offer economies of scale, reliable marketing relationships, resources for new plant and equipment, greater capital reserves and more business experience. Small private and non-profit operators are usually locally-owned and plan to reinvest in the community, such as with special job programs. Small size may also allow more inventive and flexible programs. Programs operated by public agencies offer the highest level of agency control, can sometimes draw on greater resources, and have the public good as their highest priority.

Market Development

Materials diverted from the waste stream must be put to good use. This is critical for local agencies that are committing public monies for new recycling and composting facilities. Stockpiling materials is often not a cost-effective strategy. Development of new domestic markets is needed. Also, due to the County's location on the Pacific Rim, and the presence of a major port, attention to international markets is logical. While market development programs can be established at the local level, a *comprehensive* effort will require new state and federal legislation.

GENERAL ISSUES

Economic Development

Waste management offers real opportunities for economic growth. Recycling and composting programs create jobs for lower-skilled workers. Once diverted, waste is a "raw material" resource that may attract industries to locate nearby. Use of recycled materials may reduce production costs. Comprehensive waste diversion systems also reduce long-haul landfilling and environmental clean-ups, the costs of which would otherwise be passed on to business customers. Alameda County, with its labor force, market size and its industrial and transportation infrastructure, is positioned to lead the nationwide development of recycled or "secondary" materials manufacturing infrastructure.

Program Financing

Many waste reduction programs are not self-supporting. They may also *appear* costly in comparison to landfill fees, which may not fully reflect long-term costs to replace the landfills and cover environmental liability. While the County has potential funding from facility fees, mitigation fees, the Measure D fee and from the sale of recyclables, every source of public financing is likely to be controversial.

Facility Siting Criteria

Due to both "image" and potential environmental problems, solid waste facilities are often "locally unwanted land uses" ["LULUs"] to which people react: "Not in my backyard!" ["NIMBY"]. Decisions on facility siting are and must remain a basic preserve of local jurisdictions with land use authority. However, on a countywide basis the Authority can help to ensure that facilities are geographically balanced, are consistent with siting criteria, and fit within the countywide system of facilities. The Authority can also help local jurisdictions to identify and mitigate potential environmental and social impacts. Once a local jurisdiction approves a facility, the Authority looks at countywide effects, impacts to neighboring jurisdictions and environmental impacts.

Franchise Agreements and Contracts

Thirteen of the 14 cities and two sanitary districts use agreements with private firms for waste collection, disposal and recycling. One city has municipal collection and an agreement with a private firm for disposal. The Authority has a program of aiding its members with franchise agreements as they come up for bid or renewal. An important factor is avoiding granting exclusive franchises which include materials or processing techniques which may change and become susceptible to diversion. This allows cities and sanitary districts to receive competitive bids for services such as food waste collection and composting which might not have been available when the franchise agreement was executed.

Federal and State Involvement

Federal and state governments can do more in the area of waste reduction. Examples include financial support for local programs, minimization of bureaucratic regulation, federal and state government procurement laws, mandatory recycling by state and federal agencies, elimination of tax incentives for use of virgin materials, minimum content legislation and minimum packaging legislation.

Regional, Countywide, Subregional Cooperation

Many waste management issues cross political boundaries. A scavenger may collect garbage in two cities and take it to a transfer station in a third. From there it may be hauled through several other cities to a remote landfill. This landfill may take waste from other counties as well. Similarly, recyclers may accept material from throughout the Bay Area, trucking it to the Port of Oakland for shipment to the international market. To effectively implement programs to reduce waste, the necessary organizational structures must be in place. The Authority is well positioned to address interjurisdictional issues.

V. COUNTYWIDE POLICIES

This section includes the goals, objectives, policies and siting criteria that are the blueprint for developing specific facilities and programs to meet the County's needs. Unless otherwise indicated, these general policies apply to both the short-term and medium-term planning periods.

Section V also includes the Authority's Conformance Procedures that are followed in determining whether proposed facilities are consistent with the Countywide Element.

GOAL 1: PROMOTE ENVIRONMENTAL QUALITY

To ensure protection of public health and safety, and to minimize environmental impacts, in all aspects of solid waste management. Areas of concern include:

- public health
- geologic
- hydrologic
- biotic
- traffic and roadways
- tax revenue
- public awareness and participation
- public safety
- noise
- air quality
- energy use
- employment
- socioeconomic factors
- land use compatibility
- natural resources
- cultural resources
- open space values
- visual impacts
- public services
- property values
- environmental liability

OBJECTIVE 1.1: that existing solid waste facilities cause no new public health, safety or environmental impacts, that are not evaluated and permitted by the agencies of jurisdiction.

Policy 1.1.1: facilities must comply with all applicable permit conditions and standards and shall be monitored regularly for compliance.

Policy 1.1.2: environmental impacts should be re-evaluated each time permits are reviewed or revised.

Implementation:

The Local Enforcement Agency [LEA] Solid Waste Facility Permit [SWFP] enforcement program includes site inspections, monitoring and a permit violation and correction process. The California Integrated Waste Management Board [CIWMB] monitors the LEA's performance for compliance with State regulations.

In addition, standards and environmental mitigation measures may be enforced by these other agencies:

- City and County land use permit compliance programs
- Local police, fire and building department code enforcement
- Monitoring of California Environmental Quality Act [CEQA] mitigation measures [usually the responsibility of cities and counties]
- Monitoring and enforcement of state and Federal laws pertaining to hazardous materials (U.S. Environmental Protection Agency (EPA), Department of Toxic Substance Control (DTSC) or CIWMB
- U.S. Resource Conservation and Recovery Act [U.S. Environmental Protection Agency (EPA) or CIWMB]

Many land use agencies review use permits every three to five years. The Alameda County LEA reviews its Facility Permits every five years. In addition, a review may be triggered when an project owner applies for a permit revision.

OBJECTIVE 1.2 : to the greatest extent feasible, proposed new or expanded solid waste facilities have no significant adverse health, safety or environmental impacts.

Policy 1.2.1: all proposals shall be thoroughly evaluated as to their health, safety and environmental impacts; alternatives and mitigation measures shall be considered.

Policy 1.2.2 : all significant negative impacts shall be mitigated to the maximum extent feasible. Use of override findings should be avoided except where the benefits of the project outweigh other considerations. Compliance with all other regulatory requirements shall be required.

Policy 1.2.3 : all adopted mitigation measures shall be monitored and enforced in accord with an approved mitigation monitoring program.

Implementation:

Health and safety impacts are evaluated through the local land use approval process, the CEQA process, Solid Waste Facilities Permit process, and the Authority County Integrated Waste Management Plan [CoIWMP] conformance process. This Plan contains generalized siting criteria. Local jurisdictions may adopt more detailed and stringent criteria. In addition to local approvals, health and safety impacts may be considered by other responsible regional, state and federal agencies.

The CEQA environmental assessment and mitigation process is a primary means of ensuring that potential environmental impacts are adequately addressed. Although CEQA does not require an analysis of fiscal impacts, such analyses can be added at the discretion of the public agencies involved. Permitting agencies are required to adopt mitigation measures unless they are found to be infeasible and override findings are made. CEQA requires a monitoring program to ensure that adopted mitigation measures are enforced.

OBJECTIVE 1.3 : that hazardous wastes be removed from the solid wastestream for proper separate management.

Policy 1.3.1: to the extent feasible, hazardous wastes shall be separated from solid wastes through separate collection and load check programs.

Implementation:

To keep hazardous wastes out of landfills, the LEA approves and enforces a hazardous waste monitoring program for solid waste facilities. In addition, the County Environmental Health Department, with policy direction provided by the Waste Management Authority operates three permanent Household Hazardous Waste (HHW) collection facilities located in the northern, southern, and eastern sections of the County. In 2001-02, over 1,000 tons of material were processed, serving 19,747 households. Approximately 85% of these materials were reused or recycled. These facilities serve all Alameda County jurisdictions. The Waste Management Authority also provides public education and marketing materials for the program to increase awareness of HHW, the advantages of safe disposal practices, and safer substitutes to toxic household products.

The County Hazardous Materials Division provides emergency response to spills, oversight of underground tank generators and site mitigation.

Policy 1.3.2: the Authority supports the Hierarchy of Hazardous Waste Management contained in the Alameda County Hazardous Waste Management Plan.

Implementation:

The Hierarchy sets these priorities: [1] waste minimization/toxics use reduction, [2] recycling, [3] treatment, and [4] safe residuals repositories. The County Hazardous Waste Management Plan includes generalized facility Siting Criteria, calls for a Local Review Process and Criteria, and requires local findings of Plan Conformance for proposed hazardous waste facilities. The Authority and most member agencies endorse the Association of Bay Area Government's [ABAG] Facility Allocation Plan as a means to equitably site necessary facilities in the Bay Area.

GOAL 2: ACHIEVE MAXIMUM FEASIBLE WASTE REDUCTION

To reduce the amount of waste disposed at landfills through improved management and conservation of resources.

OBJECTIVE 2.1: achieve countywide waste reduction of 75 percent by 2010. In calculating waste reduction, give credit for:

- existing waste reduction in the 1990 base year.
- changes in population or in the number or size of industrial, commercial and governmental operations after 1990.
- special factors such as cleanup of debris from natural disasters.

This *countywide* goal may be established under state law but is not mandated by state law. It is not subject to enforcement through fines or other actions.

Policy 2.1.1: The Authority supports the program priorities of the Hierarchy of Waste Management: [1] Source Reduction, [2] Recycling and Composting, [3] Safe Transformation of Source Separated Materials and [4] Sanitary Landfill.

Implementation:

Consistency with the Hierarchy is considered in the local program design and selection process. The Authority monitors this through the Plan Conformance process, selection of Countywide/Subcounty Programs, and funding support. Also, the Authority itself may implement programs.

Policy 2.1.2: Attainment of the waste reduction goals shall be promoted to the public as a high priority.

Implementation:

The Authority will sponsor an on-going public information campaign that focuses on achievement of the countywide waste reduction goals

Policy 2.1.3: Consistent with the Waste Management Hierarchy, program priorities shall reflect relative cost-effectiveness, relative environmental effects associated with program implementation and whether any new use or product produced is the Highest and Best Use of the waste material.

***Implementation*:**

The Authority will consider these factors in sponsoring programs and in program design.

Policy 2.1.4: Progress toward reaching the short-, medium-, and long-term waste reduction goals shall be monitored.

Implementation:
The success of waste reduction efforts is measured by the decline in the amount of waste disposed at landfills, adjusted for increased population and economic development.

Pursuant to Authority Ordinance 95-01, monitoring requirements shall be included in each landfill and transfer station Solid Waste Facilities Permit. Operators shall submit monthly reports on tons disposed and diverted, by jurisdiction, to the Authority. Added scales and documentation may be needed to adequately account for the amount and origin of waste. Detailed characterization of waste should only occur at five year intervals, in conjunction with revisions to the CoIWMP.

The Authority has developed a standard reporting system for transfer stations, landfills and waste reduction facilities and programs in this county and a unified methodology for performing waste characterization studies.

To assess program effectiveness, and to demonstrate that reduced landfilling is not due to illegal dumping, it is recommended that the Authority and the member agencies maintain descriptive information on all known public and private waste reduction programs, and quantitative data on publicly-sponsored programs that are susceptible to measurement. Some privately-sponsored programs may also provide quantitative data.

Report on progress toward achieving waste reduction goals shall be provided to the public and to the CIWMB, as required by law.

OBJECTIVE 2.2 : To achieve by source reduction and reuse, countywide waste reduction of 20 percent by 2010.

Policy 2.2.1: The Authority shall support source reduction and reuse programs as a method of waste reduction that requires few public resources, is cost-effective, and allows broad public participation.

OBJECTIVE 2.3 : To achieve by recycling, countywide waste reduction of 55 percent by 2010.

Policy 2.3.1: The Authority shall support recycling programs as a form of resource conservation and economic development.

OBJECTIVE 2.4 : To achieve by composting, 180,000 tons of countywide diversion of food waste and contaminated paper by 2010.

Policy 2.4.1: The Authority shall support composting programs where the product has a marketable use and where the product has other beneficial uses. The Authority shall also develop in-county composting capacity for convenient economical diversion of organic materials.

OBJECTIVE 2.5 : Avoid or limit waste reduction by technologies that convert waste into energy.

Policy 2.5.1: The Authority shall support safe transformation for separated materials, such as wood chips, if it is demonstrated that alternative markets for the material are not available.

Policy 2.5.2: The CoIWMP shall not provide for "mass burn" waste-to-energy facilities, unless potential environmental impacts, health risks, impacts to material recovery programs and financial risks are fully mitigated.

Policy 2.5.3: For residual wastes that must be landfilled, the Authority shall support recovery of landfill gases and their use in the co-generation of energy.

Implementation:

No transformation facilities are proposed. The Authority will consider facilities that produce fuel, such as wood chips, for transformation elsewhere. The Authority enforces this policy through the Plan Conformance process, selection of Countywide/ Subcounty Programs, and funding support to member agency programs. Further, incineration of refuse within the unincorporated area of Alameda County is prohibited under Measure D. Each landfill Solid Waste Facility Permit shall require

the safe venting of landfill gases and, where feasible, their recovery and use as alternative energy sources.

OBJECTIVE 2.6 : To strive to ensure that adequate markets or other beneficial uses are available for all materials recovered from the wastestream.

Policy 2.6.1: The Authority shall promote market development for recycled materials and compost.

Policy 2.6.2: The Authority shall promote contingency plans for recycled materials facilities and compost facilities in Alameda county.

Implementation:

The Authority has prepared a countywide disaster waste management plan.

OBJECTIVE 2.7 : To use waste management facilities and programs as a means to increase economic development.

Policy 2.7.1: The Authority shall promote development of new private industry in Alameda county that utilizes materials diverted from the local wastestream.

Implementation:

The Authority will continue implementing or begin implementing, the following programs on a countywide or sub-regional basis to address Objectives 2.2., 2.3 and 2.4, 2.6, 2.7 and policies 2.2.1, 2.3.1, 2.4.1 2.6.1 and 2.7.1.

GREEN BUILDING AND C&D PROGRAM STRATEGIES

1. Technical and Financial Assistance

Short term (2003-2005)

Provide member agencies with the following assistance:

- Provide model language and help with adoption and implementation of a civic Green Building Ordinance, a policy to

require that green building practices are employed in city and county owned and funded buildings.
- Continue to develop and refine green building ordinances for commercial and residential buildings.
- Work with member agencies to incorporate green building language into general plans.
- Promote USGBC's LEED™ green building rating systems to member agencies and provide training scholarships, memberships and project registration assistance.
- Promote the regional use of Alameda County Green Building Guidelines for new residential construction and remodeling projects.
- Provide member agencies' planning and building officials, architect and public works staff with green building workshops and trainings.
- Develop green building guidelines for multi-family affordable housing.
- Provide green building design assistance through technical assistance and grants.
- Require a construction and demolition debris plan for at least 50% diversion requirement as a condition of grant funding for any building.
- Continue to assist cities with development, adoption, and implementation of ordinances requiring contractors to recycle their construction and demolition debris.
- Analyze construction and demolition debris data from waste management plans submitted to cities.
- Assist cities in developing requirements in their building and design review process that maximize recycling after the project is built (i.e., design for recycling).

<u>Provide residents with the following assistance:</u>
- Distribute residential green building guidelines for remodeling and new home construction.
- Present workshops and presentations to the general public on the remodeling guidelines at appropriate venues such as home and garden shows.
- Develop case studies.

<u>Provide builders with the following assistance:</u>
- Work with production home builders on using the new home construction guidelines.
- Assist developers in promoting green features of new homes.
- Develop and promote green model home.
- Continue trainings for home builders and architects.

- Develop and foster relationships with building industry organizations and construction and demolition debris trade associations.
- Continue to develop and promote a green builder certification program.
- Provide design and financial assistance to non-profit multi-family housing developers.
- Work with suppliers to increase the number of green building materials they offer.
- Develop case studies for commercial projects.
- Provide workshops for builders on how to effectively manage construction and demolition debris.
- Evaluate strategies to determine effectiveness.

Medium term (2006-2008)

- Assist cities in fine tuning construction and demolition debris ordinance and green building ordinances.
- Determine whether to prioritize access to green building grants and technical assistance for cities who have implemented construction and demolition debris and civic green building ordinances.
- Continue green building trainings.
- Continue to provide technical assistance to member agencies to develop construction and demolition debris and green building policies.
- Provide technical assistance to production home builders to incorporate guidelines into communities.
- Evaluate success of strategies to date.

Long term (2009-2010)

- Assist cities in updating construction and demolition debris and green building ordinances.
- Explore the feasibility of increasing construction and demolition debris recycling requirements to 75%.
- Continue to provide technical assistance on waste management and recycled content materials use.
- Evaluate effectiveness of strategies to date.

2. Infrastructure

Short term (2003-2005)

- Identify appropriate parameters for land for a mixed construction and demolition recycling facility (e.g., size of parcel, zoning requirements).

- Research whether appropriate land parcels exist for a mixed construction and demolition facility in Alameda County.
- Pursue development of a construction and demolition debris facility if determined to be needed, feasible and cost-effective, and if appropriate land parcels exist.
- Support and promote construction and demolition debris recycling capacity by continuing subsidy for contractors who use qualified facilities for mixed construction and demolition debris. This subsidy will be reviewed annually.
- Establish new or expanded construction and demolition debris recycling capacity at existing facilities through the Material Recovery Facility (MRF) program.
- Assist existing facilities by continuing to print Builders' Guide to Reuse and Recycling and promoting the availability of these facilities.
- Evaluate strategies used at end of short-term period to determine success in increasing construction and demolition debris recovery.

Medium term (2006-2008)

- Continue to work on facility development, if not completed in the short term.
- Evaluate continuing need for subsidies/financial incentives.
- Update Builders' Guide to Reuse and Recycling.
- Evaluate strategies used at end of medium term period to determine success in increasing construction and demolition debris recovery and need for revisions.

Long term (2009-2010)

- Continue to promote existing facilities through the Builders' Guide to Reuse and Recycling.
- Evaluate continuing need for subsidies/financial incentives.
- Evaluate strategies used to determine success.

3. Collection Programs

Short term (2003-2005)

- For cities who are going out to bid for a new waste hauler and recycler, provide sample contract language requiring haulers to provide construction and demolition debris recycling service and encouraging an open competitive environment for these materials.

Medium term (2006-2008)

- Continue to assist cities that are going out to bid for a new hauler and recycler with contract language to maximize construction and demolition debris diversion.

Long term (2009-2010)

- Continue to assist cities that are going out to bid for a new hauler and recycler with contract language to maximize construction and demolition debris diversion.

4. Market Development

Short term (2003-2005)

- Continue to promote the use of recycled content products to builders, architects, designers, and contractors.
- Distribute green building guidelines, with information on purchasing materials locally.
- Hold workshops on green building.
- Subsidize cost of LEED™ trainings for city engineers, architects and capital project managers.
- Partner with suppliers and distributors to carry more recycled content products.
- Partner with utilities such as PG&E and EBMUD to cross-promote each other's concepts.
- Develop presentation tools to promote recycled content products, including hands-on building materials displays such as the existing trailer.
- Encourage recycling of unpainted wood for the highest and best use.
- Encourage non-ADC use for construction and demolition debris materials.
- Evaluate strategies to determine effectiveness.

Medium term (2006-2008)

- Continue existing partnerships and develop new ones as appropriate.
- Continue to encourage non-ADC use for construction and demolition debris materials.
- Evaluate strategies to determine effectiveness.

Long term (2009-2010)

- Focus on job site recycling and materials selection if the other aspects of green building are institutionalized and incorporated by architects, builders and contractors.
- Continue to identify local sources of green building materials.
- Promote expanded collection of targeted materials.

5. Waste Prevention and Sustainability

Short term (2003-2005)

- targeted materials, particularly unpainted wood (e.g., finger jointing machine, reusable aluminum form boards).
- Promote construction techniques that efficiently use materials, such as Optimum Value Engineering and Advanced Framing Techniques.
- Research and promote material substitutions that will reduce the amount of materials being landfilled (e.g., plastic lumber and engineered lumber in place of old growth wood, aluminum form boards, linoleum instead of vinyl, carpet leasing).
- Promote appropriate aspects of California Main Street program which links economic viability with building reuse.
- Promote LEED™ credit for building reuse.
- Provide cities with model general plan language to promote building reuse, where appropriate.
- In coordination with member agencies, promote green building concepts including building reuse at military base closures as allowable within the mandates of building codes.
- Sponsor job site construction site audits to determine waste prevention efforts that could be promoted to others.
- Continue to support deconstruction and salvage activities.
- Support centrally located building reuse retail stores.

Medium term (2006-2008)

- Continue to research and promote material substitutions and construction techniques that promote waste prevention.
- Continue to work with base redevelopment.
- Continue to support deconstruction and salvage activities.
- Evaluate strategies to determine effectiveness.

Long term (2009-2010)

- Evaluate strategies to determine effectiveness.

BUSINESS & PUBLIC AGENCIES STRATEGIES

1. Technical and Financial Assistance

Short term (2003-2005)

- Evaluate StopWa$te client targeting and marketing plan biennially.

- Continue to offer multi-media assessments of businesses and public agencies, providing a core focus on waste prevention and recycling and additional expertise in energy and water conservation and reduction of wastewater discharges.
- Continue to work with StopWa$te clients to have them adopt resource efficient practices and especially waste prevention practices.
- Continue to provide financial incentives including mini-grants, waste prevention funding and incentives for businesses adopting best environmental practices.
- Track diversion successes of StopWa$te clients and report those back to clients and member agencies.
- Continue to develop cases studies of the most resource efficient clients.
- Continue to develop web-based "best practices" database.
- Target multi-tenant facilities for coordinated implementation of services.
- Continue member agency training, two-way referrals for services and consulting on business best practices.
- Continue to provide mitigation funds to member agencies for commercial programs.
- Continue to fund non-profits on specific diversion projects.
- Provide public recognition to exemplary clients.

Medium term (2006-2008)

- Evaluate whether to continue using mitigation funds to divert commercial waste and, if so, whether to establish more specific guidelines for using these funds.
- Evaluate program results using program data and relevant study results, and revise strategies as needed.

Long term (2009-2010)

- Evaluate the need to encourage cities to incorporate sustainability requirements into business license process.
- Evaluate the need to encourage cities to consider developing requirements for institutions and/or businesses of a certain size to develop and implement recycling plan (for city adoption and implementation).
- Encourage cities to require recycling/waste prevention plan for multi-tenants in building permit.
- Evaluate results and revise program as needed.

2. Infrastructure

Short term (2003-2005)

- Continue to provide funding for MRF sorting of recyclable rich debris box and roll off loads.

Medium term (2006-2008)

- Evaluate the effectiveness of the MRF in diverting significant quantities from recyclable rich debris box and roll off loads.
- If expanded MRF approach seems effective, consider helping other transfer stations in-county employ this approach.

Long term (2009-2010)

- Help all transfer stations in Alameda County to have the appropriate infrastructure for maximizing diversion of targeted materials.

3. Collection Programs

Short term (2003-2005)

- Provide cities with model franchise language maximizing business recycling services.
- Provide businesses with contract language to include in their custodial contracts that maximize recycling efforts.
- Work with janitorial staffs to promote acceptance of recycling programs.
- Offer mini-grants for one-time purchases such as recycling bins.
- Provide signage, collection bins and recycling program kickoff assistance to large generators of targeted materials.
- Promote the use of effective and appropriate employee incentives.
- Encourage businesses to assign recycling point people.

Medium term (2006-2008)

- Using results of relevant studies, revise strategies as needed.
- Continue to provide cities with model franchise language that maximize business recycling services.
- Continue to provide businesses contract language to include in their custodial contracts that offer incentives for additional diversion.
- Provide janitorial staff training about recycling as needed, to StopWa$te clients.

- Explore specialized routing for recyclable-rich customer loads, and consider assisting haulers to develop these.

Long term (2009-2010)

- Evaluate and refine strategies.

4. Market Development

Short term (2003-2005)

- Monitor the markets for all Agency targeted materials.
- Help establish durable, economically viable markets for targeted materials.
- Coordinate data on materials use by business type through use of state research, Weight Based Study and Waste Production Measurement Study.
- Offer financial and technical assistance to businesses interested in market development activities through the Revolving Loan Fund and the Market Development Assistance Project.
- Continue to support and develop Eco-Industrial Park.
- Develop an integrated brochure for all business-focused programs.
- Research recovery options for hard to recycle materials found in working with clients.
- Promote recycled content products to member agencies and employers.
- Promote the incorporation of Environmental Preferable Purchasing practices into purchasing policies to member agencies and employers.
- Consider providing financial and technical assistance to product developers whose products will prevent the creation of waste and strengthen end markets for targeted materials.
- Determine current market capacity for plastic film and research assisting businesses in converting to marketable and recyclable plastics.
- Support and promote existing plastic film end users.
- Target and educate generators of plastic film to divert this material.
- Provide financial assistance for generators of plastic film to bale or consolidate the material.
- Continue to identify and support potentially viable fiber end users who wish to site in the region.
- Continue to support mattress and furniture recycling efforts.

Medium term (2006-2008)

- Increase Buy Recycled efforts with large employers.
- Increase Buy Recycled outreach to member agencies.
- Work higher up the supply chain to get national chains to incorporate waste prevention practices, recycled procurement practices, and promote recycling programs not only to their stores but also to suppliers and distributors.

Long term (2009-2010)

- Evaluate and revise strategies as needed.

5. Waste Prevention and Sustainability

Short term (2003-2005)

- Provide comprehensive resource efficiency assessments that result in recommendations to reduce materials use and waste, energy consumption and wastewater.
- Include product suppliers and distributors as a part of the comprehensive environmental assessment process, when advantageous.
- Identify the most useful measurements of waste prevention.
- Gain a better understanding through client work of costs and cost savings, including labor efficiencies associated with waste prevention activities, to share with others.
- Develop and share best recycling and waste prevention practices.
- Document and produce case studies that chronicle successful waste prevention projects.
- Focus waste prevention efforts on activities with high waste prevention potential including administrative activities, food service, patient care, food production, and non-food raw material manufacturing.
- Hold business-oriented focus groups on effective incentives for and barriers to specific waste prevention activities.
- Promote reusable shipping/transportation containers.
- Encourage businesses to get vendors to take back and reuse pallets.
- Target a few large chains to change their practices.
- Conduct a paper reduction campaign, focusing on equipment, practices, software solutions, cost savings, and best practices.
- Engage member agencies in sustainability inventory project, a profile of a community's current environmental, economic and social conditions and resources.
- Recognize business successes in resource efficiency.

Medium term (2006-2008)

- Focus waste prevention efforts on the following activities: Shipping/Transportation; Retail - Department and Specialty Stores; Retail - Grocery Stores; Other Retail businesses; Mail Distribution; Housekeeping; Printing; and Building and Equipment Maintenance in some industries.
- Promote reusable shipping/transportation containers and paper use reduction strategies when practical and cost-effective.
- Work with member agencies, regional groups, non-profits and industry to encourage practical manufacturer responsibility efforts.
- Work with packaging designers to create more efficient, less wasteful packaging.
- Evaluate use of sustainability inventory to determine whether to engage more member agencies in the development of such an inventory.
- Evaluate and refine strategies as needed.

Long term (2009-2010)

- Promote reusable shipping/transportation containers.
- Encourage vendor take-back.
- Work with packaging designers to create more efficient, less wasteful packaging.
- If determined useful, engage additional member agencies in development of a sustainability inventory.

ORGANICS STRATEGIES

1. Technical and Financial Assistance (Combined with Waste Prevention and Sustainability)

Short term (2003-2005)

- Provide low cost compost bins to county residents.
- Continue to recruit and educate master composter trainers in compost education and expand curriculum to include sustainable landscaping concepts.
- Promote sustainable landscaping concepts to residents, e.g., mulching, plant choice to minimize waste and water conservation.
- Document and promote best sustainable landscaping practices.
- Provide outreach and education on best practices to landscapers.
- Promote edible food donations to businesses.

Medium term (2006-2008)

- Continue to promote the sale and subsidy of home compost bins.
- Promote residential landscape efficiency ordinances.
- Continue to recruit and train master composters.
- Evaluate existing policies and identify obstacles for promoting best practices in sustainable landscaping.
- Train nursery staff and other appropriate professions on compost and sustainable landscaping practices.
- Maintain compost demonstration gardens and determine whether to expand or change their use.
- Reduce overall number of compost workshops and hold more involved, targeted workshops.
- Distribute sustainable landscaping information such as lists of native plants with compost bins.
- Provide grants to member agencies for implementing sustainable landscaping practices.

Long term (2009-2010)

- Evaluate and refine strategies.
- Promote residential landscape efficiency ordinances.
- Evaluate saturation of home compost bin sales and whether demand is continuing or waning.
- Evaluate how residential food waste collection affects home compost bin sales and home composting practices.

2. Infrastructure

Short term (2003-2005)

- Negotiate contracts with proposers in conformance with the Compost Facility Development Guidelines for up to two in-county composting facilities.
- Evaluate progress of above to determine feasibility of next stage.
- Monitor quality of compost products and markets.

Medium term (2006-2008)

- Monitor contract with in-county compost facility(ies), if facility is built.
- If facility is not successful, work to ensure other capacity for Alameda County organic waste.
- Monitor quality of compost products and markets.

Long term (2009-2010)

- Monitor contract with in-county compost facility(ies), if built.
- Monitor quality of compost product and markets.

3. Collection Programs

Short term (2003-2005)

- Provide technical assistance and financial subsidies for residential and commercial organics collection.
- Encourage jurisdictions to include residential and commercial food waste collection programs in new and negotiated contracts.
- Evaluate the incentives and subsidy program against a list of criteria to minimize risk that the funded activities would occur without the funding and to ensure that Agency goals are being met.
- Encourage recycling of unpainted wood for compost feedstock and mulch.
- Discourage chemically treated, painted wood from inclusion in compost processing or mulch use.
- Promote countywide edible food waste recovery through mass media.
- Promote use of "clean green" discounts to self haulers and landscapers at transfer stations.

Medium term (2006-2008)

- Accept unpainted wood as feedstock at county compost facility.
- Provide incentives to transfer stations to recycle unpainted wood.
- Investigate the feasibility of promoting a statewide yard waste landfill ban with the support of neighboring Counties.
- Monitor and evaluate programs. Revise as needed.

Long term (2009-2010)

- Advocate for statewide yard waste ban.
- Investigate markets and processes for the recovery of painted wood.
- Monitor and evaluate programs. Revise as needed.

4. Market Development

Short term (2003-2005)

- Promote use of compost to residents, landscapers, and municipalities.
- Promote compost quality standards.
- Develop market development plans for in-county purchase of compost.
- Encourage member agencies to include a provision in new plant debris processing contracts for a percentage of compost/mulch in give back for community projects.
- Promote chipping plant debris for mulch.
- Coordinate composting outreach and compost bin sales with green building outreach.
- Target greenwaste used as ADC for composting.

Medium term (2006-2008)

- Implement market development plan for compost.
- Evaluate and revise strategies as needed.

Long term (2009-2010)

- Continue to evaluate markets and promote uses of compost.
- Evaluate and revise strategies as needed.

SCHOOLS PROGRAM

1. Curriculum Strategies

Short term (2003-2005)

- Prioritize program support for schools in districts that have committed to a recycling collection program.
- Continue and expand upon collaborative partnerships with groups with complimentary goals and with groups that train teachers.
- Develop an after-school, experiential educational component in partnership with existing programs offered by non-profits, youth groups, cities, and YMCAs.
- Educate teachers to integrate "4Rs" message into their standards based curriculum.
- Recruit teachers for master composter training.
- Support facilities that provide long term environmental education such as the Davis Street Education Center and Camp Arroyo.
- Continue providing Davis Street Transfer Station visits to eligible students.
- Contact all schools at least twice per year with different media such as Agency newsletters, promotional flyers, and announcements.

Medium term (2006-2008)

- Continue teacher education efforts.
- Continue Davis Street tours.
- Continue service learning.
- Evaluate whether to develop a new tour.
- Evaluate additional ways to link curriculum to school recycling programs.
- Evaluate effectiveness of all school programs and six-pronged approach in schools through surveys and focus groups.

Long term (2009-2010)

- Continue teacher education efforts.
- Continue tours.
- Continue service learning.
- Search for new methods to involve teachers, students and new constituents.
- Evaluate effectiveness of programs.

2. Schools Infrastructure

Short term (2003-2005)

- Develop outreach strategy to school districts, with the goal being a district-supported waste reduction and recycling program with school board and upper management support.
- Develop best practices models for school recycling and waste reduction programs.
- Develop standard agreement to foster commitment from districts for a school recycling program.
- Sign letters of commitment and institute school site recycling in school districts.
- Offer technical and financial assistance and incentives to schools within districts with an adopted recycling policy with an eye to district sustainability of program.
- Develop and conduct relevant trainings for non-teaching staff including custodial, kitchen and administration.
- Continue and expand upon educational materials to support recycling and composting programs in schools.
- Conduct assembly programs at half the schools that start a recycling program.
- Provide school districts with model hauler contract language for school recycling collection, that includes incentives for recycling.
- Encourage cities who are negotiating food waste collection programs to include schools.
- Work with haulers and cities to improve collection services to schools.
- Help school districts adopt construction and demolition debris recycling policy (city policy doesn't cover schools).
- Work with school districts to adopt green building measures in accordance with the California High Performance Schools program in school renovations and new school construction.
- Develop appropriate composting options for districts (off-site) and/or coordinate plant debris recycling with food waste recycling.
- Provide technical and financial assistance to implement on-site food scraps composting.
- Encourage chipping of plant debris on-site by school districts where appropriate.
- Promote food rescue programs.
- Promote waste free lunch programs for kids who bring lunch to school. Teach students to use reusable containers, thermos, cloth napkins.
- Promote purchasing techniques for waste prevention. Encourage double sided copying machines.

Medium term (2006-2008)

- Continue to work with school districts to get letters of commitment for classroom recycling.
- Continue to provide technical assistance to institute school site recycling.
- Continue to provide technical assistance on recycled content purchasing and environmentally preferable purchasing.
- Encourage school purchasers to attend state education purchasing organization event and incorporate waste prevention principles into that event.
- Develop district strategies for effective waste prevention of plant debris.
- Work with school districts to provide more student choice of food items vs. automatic servings (offer vs. serve programs) to help reduce food waste within state and federal mandated nutrition guidelines.
- Continue to provide school districts with assistance in adopting construction and demolition debris recycling policy.
- Work with school districts to adopt green building measures in accordance with the California High Performance Schools program in school renovations and new school construction.

Long term (2009-2010)

- Support implementation of school site recycling, including an organic waste reduction strategy, in every school district in Alameda County by 2010.
- Help all remaining schools districts adopt construction and demolition debris policy by 2010.
- Encourage every school district to use sustainable landscaping principles and plantings.

GOAL 3: PROVIDE PUBLIC INFORMATION AND EDUCATION

To build broad public support for the CoIWMP programs and their implementation.

OBJECTIVE 3.1: To enhance the public awareness and understanding of waste management issues in general.

Policy 3.1.1: The Authority, in conjunction with member agency programs, shall encourage a focus on, and understanding of, waste management issues.

Policy 3.1.2: The Authority, in conjunction with the member agencies, shall promote attainment of the 75 percent waste reduction goals as a major public endeavor.

OBJECTIVE 3.2 : To change or reinforce public attitudes and behavior.

Policy 3.2.1: The Authority, in conjunction with member agency programs, shall educate the public on ways to engage in waste reduction.

OBJECTIVE 3.3 : To promote new and existing waste reduction programs.

Policy 3.3.1: The Authority, in conjunction with the member agencies, shall provide public information on new and existing programs.

OBJECTIVE 3.4 : To provide information on waste reduction to Authority member agencies.

Policy 3.4.1: The Authority shall assist and coordinate the exchange of information among member agencies.

OBJECTIVE 3.5 : To inform the member agencies and the public concerning Authority activities.

Policy 3.5.1: The Authority shall provide public information on an ongoing basis to increase the visibility and understanding of Authority programs.

IMPLEMENTATION STRATEGIES

Short term (2003-2005)

- Provide multi media support to a wide range of Agency programs.
- Promote increased participation and capture rates in current programs.
- Provide same day response to all media inquiries.
- Incorporate results of Agency studies and plans, including Waste Characterization Study 2000, the Source Reduction and Recycling Plan, the Five-Year Audit and others into public education materials.
- Continue to provide specialized promotion and outreach campaigns, including Household Hazardous Waste (Alameda County Environmental Health Department), Used Oil Recycling (participating member agencies), and regional Buy Recycled campaigns (Bay Area Recycling Outreach Coalition).
- Develop radio and television commercials, print advertising, guides, brochures and other materials in support of Agency goals and objectives.
- Provide live operator assistance to the public through the countywide Recycling Hotline and the Compost Information "Rotline."
- Provide translation services in Spanish, Mandarin and Vietnamese languages through the Recycling Hotline.
- Work with non-profits to deliver recycling education to under served or hard to reach populations.
- Develop outreach strategy to multi-family complexes.
- Develop multi-family outreach materials.
- Conduct outreach to rental homeowner organizations.
- Develop and promote best management recycling practices for multi-family complexes and managers.

Medium term (2006-2008)

- Evaluate success of multi-family outreach program and revise program as needed.
- Expand research capabilities through use of focus groups, scientific research and other polling.
- Increase translation services; make information available on a multi-lingual basis.
- Expand use of internet, email and related technologies.
- Provide continuous expansion in quantity and quality of television and radio commercials.
- Make continuous improvements to website.

Long term (2009-2010)

- Expand use of technology.
- Continuously expand feedback loops to provide analysis and measurement of programs.

GOAL 4: MEET DISPOSAL CAPACITY NEEDS

To provide for the environmentally sound disposal of waste that cannot otherwise be reduced, reused or diverted.

OBJECTIVE 4.1: To provide 15 years permitted landfill capacity in Alameda county, consistent with the Save Agriculture and Open Space Lands initiative. Upon reaching a minimum of 15 years of permitted landfill capacity, the Agency would evaluate the need for new capacity to meet future needs. The Agency will also evaluate needed recycling facility capacity and work to ensure that this capacity is available and zoned appropriately.

Policy 4.1.1: The Authority shall promote conservation of landfill capacity.

Implementation:
Through Authority CoIWMP conformance conditions and Authority programs:

- Encourage materials recovery at landfills.
- Encourage transfer station and landfill technologies that conserve landfill space.
- Encourage maximum feasible waste reduction efforts county-wide, consistent with the Hierarchy of Waste Management.

Policy 4.1.2: The Authority shall hold lands as future reserve landfill capacity and for a possible recycling facility development under public ownership, that is consistent with CoIWMP policies and siting criteria.

- Implementation: The Authority owns approximately 1600 acres in the North Flynn Road area of unincorporated Livermore which is being held as reserve potential future landfill capacity in the event circumstances require developing such capacity.
- Acquire additional land in that area on an opportunity basis from willing sellers.

Policy 4.1.3: The Authority shall consider environmentally sound expansion of existing privately-owned landfills that is consistent with CoIWMP policies and siting criteria.

Implementation:

Through the Authority CoIWMP conformance process consider:

- Altamont Landfill expansion
- Vasco Road Landfill expansion

The Countywide Siting Element was amended in 2000 to identify an expanded facility, the Altamont Landfill. Thus, as of 2000, Alameda County has more than 50 years of landfill capacity identified in the Integrated Waste Management Plan.

Policy 4.1.4: Disposal of Alameda County solid waste at landfills in other counties is normally consistent with this plan.

Implementation:

- Traditionally, most municipal solid waste from member agencies was deposited in landfills within the County. Recently some firms have obtained franchises and are using out-of-county landfills for municipal solid waste. The Authority regulates these activities through the conformance process for transfer stations and the rule preventing hauling of solid waste in vehicles with a capacity of more than 15 miles to landfills.
- Pursuant to Authority Resolution No. 33, 1989, Contra Costa County has guaranteed that capacity for 550,856 tons of Alameda County waste is available at Contra Costa County landfills at a cost not to exceed the 1989 disposal cost at Altamont Landfill, adjusted for inflation and government- mandated costs.

Policy 4.1.5: Remaining landfill capacity shall be monitored.

Implementation:

Pursuant to Authority Ordinance 94-01, landfill operators will submit periodic reports to the Authority documenting remaining landfill capacity.

OBJECTIVE 4.2 : To provide contingent landfill capacity for Alameda County in the event of emergencies.

Policy 4.2.1: The Authority shall require contingency plans to be in-place for all solid waste facilities in Alameda County.

Implementation:

Require operators to prepare and periodically revise contingency plans for Authority approval as part of the plan conformance process; enforce through the Solid Waste Facilities Permit [SWFP].

Policy 4.2.2: The Authority shall require contingency plans to be in-place for management of all solid waste imported into Alameda County.

Implementation:

Require Alameda County solid waste facility operators to demonstrate that contingency plans are in place for out-of-county solid waste which is imported into Alameda County for disposal as part of the Authority CoIWMP conformance process for changes in wasteshed. Viable contingency plans must remain in effect during the period of disposal of out-of-county wastes in Alameda County. Compliance will be enforced and periodically reviewed through the use permit and SWFP review and enforcement processes.

Policy 4.2.3: The Authority shall require reciprocal emergency capacity, where feasible, in any county which exports waste for disposal in Alameda County.

Implementation:

Implement through the Authority CoIWMP amendment process.

OBJECTIVE 4.3: The impact of existing waste streams and proposed wasteshed changes, requiring a CoIWMP plan amendment, on landfill capacity in Alameda county shall be mitigated.

Implementation:

Implement through Authority CoIWMP conformance process. Implementation measures identified under Policies 4.1.1 shall apply.

Policy 4.3.1: The impact of existing wastestreams and proposed waste-shed changes requiring a CoIWMP plan amendment on the environment including environmental liability, hazardous waste management, roads, traffic, open space and aesthetic values, litter, noise, odor, energy use, on-site operations and administration shall be mitigated.

Implementation:

Implement through Authority CoIWMP conformance process. Impacts of existing wastestreams should be considered during periodic reviews of use permits and Solid Waste Facility Permits.

Policy 4.3.2: The Authority shall seek a geographical balance of solid waste disposal facilities, consistent with appropriate siting criteria, across the Bay Area region in order to reduce environmental impacts.

Implementation:

Within Alameda County, the Authority implements this policy by applying CoIWMP siting criteria as part of the CoIWMP conformance process. The Authority also proposes to join in regional efforts to ensure that landfills are sited at appropriate locations throughout the Bay Area.

Policy 4.3.3: All jurisdictions disposing or proposing to dispose waste at landfills in Alameda County must implement waste reduction in compliance with the California Integrated Waste Management Act.

Implementation:

Implement through the Authority CoIWMP conformance process and interjurisdictional agreements

OBJECTIVE 4.4 : To provide comprehensive materials handling and processing operations at landfills and transfer stations to the maximum feasible extent.

Policy 4.4.1: The Authority shall encourage feasible waste reduction operations at landfills and transfer stations

Implementation:

Implement through the Authority CoIWMP conformance process.

OBJECTIVE 4.5 : To mitigate the environmental impacts of existing and new landfills to the maximum practical extent.

Policy 4.5.1: The Authority shall not approve proposed new or expanded landfills unless all significant impacts are mitigated or overriding considerations are found.

Implementation:

Implement through Authority plan conformance process in conjunction with the CEQA process.

Policy 4.5.2: Except under emergency conditions as determined by the Authority, solid waste that is collected by municipal or franchised collectors and hauled more than 15 miles from the point of collection to the landfill, must be transported in vehicles carrying a minimum payload of 14 tons.

Notwithstanding the foregoing, this policy shall not apply where solid waste is (1) being hauled to an out of County landfill under a franchise agreement with a member agency which was in effect prior to February 26, 2003 (the date of adoption of the revised CoIWMP) until the expiration of that

franchise agreement, (2) in the reasonable discretion of the Authority where waste is transported in clean air/clean fuels vehicles or (3) transported in equivalent capacity transfer vehicles.

Implementation:

Implement through the Authority CoIWMP conformance process in conjunction with the CEQA process. The intent of this policy is to minimize environmental impacts by reducing the number of vehicles-trips. The policy exempts two wastestreams: (a) municipal/franchised service near a landfill, where transfer stations may not be economically viable; and (b) non-franchised and self-haul. The latter are exempted because the materials disposed, largely inerts, bulky goods and yard waste, are generally less hazardous than standard garbage, are in some cases damaging to transfer trailers, and are targeted to be diverted from landfills through other policies and programs in this CoIWMP. The Authority will continue to monitor the effects of this exemption and may reconsider the policy at a later date. Wastewater treatment plant sludges are normally hauled in trailers that carry the maximum legal load limit and are also considered exempt from this requirement.

GOAL 5: PROVIDE COST-EFFECTIVE WASTE SERVICES

To fulfill the public trust by maximizing the value of the benefits received for each public dollar spent on improved waste management practices.

OBJECTIVE 5.1 : To ensure that facilities and programs are feasible, effective and necessary.

Policy 5.1.1 : Any proposed development in the waste management system shall be thoroughly evaluated as to cost, cost-avoidance, technical feasibility, efficiency, effectiveness, environmental and social impacts, by the Authority and local jurisdictions. The analysis shall include both short- and long-term effects.

Policy 5.1.2 : Any proposed development in the county waste management system shall be publicly reviewed.

Implementation:

Implement through public project development/funding analyses, the local land use permitting process, the CEQA process, and the Authority plan conformance process. Except confidential information, data and decisions must be presented at public meetings and public hearings.

OBJECTIVE 5.2 : To establish criteria for evaluating proposed projects.

Policy 5.2.1: The Authority shall evaluate proposed programs based upon criteria, such as site selection, cost-effectiveness and conformance with plan policies.

Implementation:

Implement through the Authority CoIWMP conformance process and through coordination with jurisdictions and other responsible agencies.

OBJECTIVE 5.3 : To ensure that proposed facilities are in conformance with the Alameda County Integrated Waste Management Plan.

Policy 5.3.1 : All proposed new, expanded or intensified facilities shall be subject to the project evaluation and approval process contemplated under the adopted Authority Conformance Procedures.

Policy 5.3.2 : The Authority shall coordinate with the member agencies and private industry to ensure that Authority policies and plans are considered as part of the project development process.

Implementation:

The Authority determines CoIWMP conformance for proposed new, revised or modified Solid Waste Facility Permits and other projects for which plan conformance may be required pursuant to State law. Conformance Procedures are contained in this chapter. An amendment to the CoIWMP requires approval by a two-thirds vote of the Authority Board. Proposed changes to Facility Permits are referred to the Authority by the LEA or the local jurisdiction. The Authority may also review other proposals on an advisory basis, upon referral by local jurisdictions or other parties.

OBJECTIVE 5.4 : To review the facilities and programs contained in the CoIWMP to ensure their continued necessity and cost-effectiveness.

Policy 5.4.1 : The Authority shall periodically review its plans and policies in consultation with the public, member agencies, other concerned agencies, and private industry.

Implementation:

The Authority's Planning Committee will oversee a periodic plan review process, coordinated with reviews that may be mandated under State law.

OBJECTIVE 5.5 : To adopt needed planning documents, supplementing the CoIWMP, to guide the Authority's expenditures.

Policy 5.5.1 : The Authority shall prepare a multi-year fiscal forecast.

Policy 5.5.2 : The Authority shall implement programs contained in the CoIWMP and Recycling Plan as its multi-year action plan in conjunction with revisions made through the annual budget process to guide resource management and capital improvements to the solid waste system.

Implementation:

The Programs and Planning Committees will oversee preparation of specific plans for waste diversion programs. The Administrative and Organization Committee will monitor the multi-year fiscal forecasts.

OBJECTIVE 5.6 : To maximize the diversity of participants and approaches in the provision of cost-effective waste management services.

Policy 5.6.1 : Private industry and non-profits shall be given an opportunity to perform some or all waste activities, including possible joint ventures or shared roles.

Policy 5.6.2 : Private industry and non-profits shall be given an opportunity to participate in the countywide planning process for solid waste programs and facilities.

Implementation:

Private industry and non-profits are encouraged to submit proposals for solid waste facilities and programs to local jurisdictions and the Authority.

GOAL 6: ENSURE ADEQUATE FINANCING

To ensure adequate financial support for the programs and facilities proposed in the Countywide Element of the CoIWMP.

OBJECTIVE 6.1 : To ensure that each proposed program or facility has sufficient funding to meet project objectives.

Policy 6.1.1 : Feasible funding sources for proposed Countywide Element programs shall be identified.

Policy 6.1.2 : Capital-intensive programs may be publicly or privately funded. The specific funding plan will be reviewed by the Authority during the CoIWMP conformance proceedings.

Implementation:

Implement through the CoIWMP Countywide Element preparation process and plan conformance process.

OBJECTIVE 6.2 : To ensure that each approved program or facility is implemented with adequate cost-controls.

Policy 6.2.1 : The Authority shall ensure that facilities and programs which are owned or operated by the Authority, or which are owned or operated by other entities supported with Authority funds, are managed with adequate cost-controls.

Implementation:

Authority program management is the responsibility of Authority staff, overseen by the appropriate Authority committees and by the Board. For local public agency programs funded by the Authority through mitigation fees or AB 939 fees, the Authority requires that recipient agencies demonstrate the purposes for which the funds are used. For special grant programs to public or non-profit groups, there must be a report to the Authority on the efficacy of the program funded. Additionally, cost per ton is one criteria considered for potential grantees and other prospective projects. Another criteria that the Authority will consider in the funding consideration is price per ton offered to member agencies. For example, Authority funding of a compost facility is partially dependent upon the prospective facility or

facilities offering a competitive price per ton to member jurisdictions for compost processing services.

OBJECTIVE 6.3: To ensure an equitable distribution of costs and benefits.

Policy 6.3.1 : The Authority shall ensure that costs and benefits of implementing the Countywide Element programs are equitably distributed among jurisdictions based on criteria such as program usage, tonnage of waste generated, and population.

Policy 6.3.2: The generators of waste shall bear the primary burden of paying for waste diversion and related programs.

Implementation:

The Authority shall adopt formulas for distributing program benefits and costs among member agencies, or among wastestreams, as part of the project development and approval process.

OBJECTIVE 6.4 : To maintain permanent funding for Authority waste management programs.

Policy 6.4.1: The Authority shall collect an AB 939 per ton landfill facility fee to support programs of countywide value sponsored by the Authority.

Policy 6.4.2: The Authority, at the request of the local jurisdictions, may collect an AB 939 per ton landfill facility fee to support waste management programs of the local jurisdictions, as provided under the Joint Powers Agreement.

Policy 6.4.3: The Authority shall continue to collect mitigation fees on out-of-county waste pursuant to adopted resolutions, in order to support mitigation programs of countywide value sponsored by the Authority.

Policy 6.4.4: The Authority, through the Plan Conformance and Plan Amendment process, may collect mitigation fees on wastes processed or disposed at solid waste facilities in Alameda County and fund or implement appropriate mitigation measures identified through the CEQA process.

Implementation:

Fees imposed by the Authority shall be implemented, in accordance with instructions by the Board. The Authority has adopted a standardized mitigation fee that is subject to periodic revision.

OBJECTIVE 6.5: To support local jurisdiction's development of franchise agreements that maximize the potential for economical diversion of waste.

Policy 6.5.1: The Authority shall work with member agencies to ensure franchise agreements that maximize diversion opportunities.

Implementation:

The Authority shall develop model language maximizing diversion opportunities for member agencies to use when negotiating new or revised franchise agreements. The Authority shall also provide technical assistance in this area.

OBJECTIVE 6.6 : To ensure that financial reserves are available and sufficient to cover landfill closure/post-closure costs and environmental liability.

Policy 6.6.1: The Authority shall coordinate with local jurisdictions, the LEA, the CIWMB, other concerned public agencies and industry to ensure that adequate financial reserves are available to cover long-term landfill costs.

Policy 6.6.2: Landfill closure/post-closure costs should be recovered on an equitable basis from those who dispose at the landfills including franchised haul, non-franchised haul and imported waste.

Policy 6.6.3: Financial resources for closure/post-closure activities and liability should be reserved and remain available for that purpose in a manner that protects such resources from creditor claims, bankruptcy or use for other purposes.

Policy 6.6.4: The Authority shall encourage responsible public agencies and industry to maintain adequate financial reserves for post-closure costs and liability in perpetuity or until the landfill no longer represents a threat to the public health or environment.

Implementation:

Implement through the CoIWMP plan conformance process.

GOAL 7: PROMOTE INTERJURISDICTIONAL COOPERATION

To achieve a more efficient and equitable solid waste management system through consensus building and shared efforts.

OBJECTIVE 7.1 : To maintain suitable organizational structures for interjurisdictional cooperation.

Policy 7.1.1 : The Authority, a Joint Powers Agency [JPA], is the lead agency for waste management on a countywide basis.

Implementation:

The Authority and its member agencies shall periodically review and revise the Joint Exercise of Powers Agreement as necessary to meet countywide needs.

Policy 7.1.2 : The Authority shall support and coordinate with the Alameda County Recycling Board to fulfill the joint aims of the two bodies.

Implementation:

Pursuant to Measure D, the Alameda County Recycling Board is established to implement provisions of the initiative relating to planning for, and funding of, waste reduction efforts. Pursuant to a Memorandum of Understanding approved by the Recycling Board and the Authority, the Recycling Board is a subsidiary body within the Authority. The Authority provides staffing to the Recycling Board. In 1995, the two boards completed a Strategic Plan designed to ensure a coordinated approach to waste management issues. In 2003, the Authority Board and the Recycling Board jointly adopted a strategic planning document, the Source Reduction and Recycling Plan, that will guide the Agency toward a 75 percent diversion rate in 2010.

Policy 7.1.3 : The Authority shall coordinate with other organizations as needed to fulfill its countywide role.

Implementation:

The Authority Board is composed of elected officials representing the member agencies. The Authority regularly consults with member agency officials and staff and has created the following advisory body:

- Alameda County Local Task Force/Waste Reduction Advisory Board, composed of citizen experts.

Authority members and staff also serve on a variety of regional groups or committees dealing with waste management issues.

OBJECTIVE 7.2 : To resolve issues of equity among member agencies.

Policy 7.2.1 : The Authority shall work with member agencies to resolve issues in accord with objective criteria, while maximizing flexibility and local control. In particular, the Authority will continue efforts to:

- Strive to achieve a geographic balance in facility siting.
- Minimize environmental impacts including traffic generation.
- Assure that potential environmental impacts on neighboring jurisdictions within and outside Alameda county are considered at the time facilities are sited.
- Assure that facility and program costs are allocated in a fair manner, considering factors such as population, program benefits, tonnage generated or disposed, and jurisdictional minimums.

Implementation:

The Authority implements this policy through the plan conformance process and through program administration and funding. Examples include providing funding for facility development only if it serves as a regional diversion facility. Another example is the development of three household hazardous waste facilities to serve all parts of the County.

OBJECTIVE 7.3 : To reduce administrative overhead.

Policy 7.3.1 : As appropriate, in order to reduce duplication of efforts, the Authority shall undertake, in whole or in part, to administer centralized planning, funding and implementation.

Implementation:

Examples include Authority preparation of the CoIWMP Countywide Element, administration of contracts for a countywide waste characterization study, and management of the Measure D implementation.

OBJECTIVE 7.4 : To improve program efficiency.

Policy 7.4.1 : The Authority shall facilitate and coordinate member agency programs, and countywide programs, in order to

maximize economies of scale, reduce environmental impacts, coordinate and strengthen marketing, and avoid unnecessary duplication.

Implementation:

Some examples of this include the model C&D ordinance, model franchise language, countywide schools curriculum and infrastructure assistance, green building technical assistance, organics processing capacity development, compost bin and worm bin distribution, organics technical assistance, buy recycled assistance, MRF capacity expansion, large employer outreach, multi-family outreach, centralized hotline, distribution of written promotional materials such as the County Recycling Guide, and outreach campaigns on topics of countywide interest.

OBJECTIVE 7.5 : To increase the county's influence by adopting common positions on matters of federal and State legislation and regulation.

Policy 7.5.1 : The Authority shall research and develop positions on legislative issues and coordinate the legislative efforts of member agencies.

Implementation:

The Authority's Public Affairs component is responsible for monitoring legislation and promoting the interests of the Authority and its member agencies.

OBJECTIVE 7.6 : To provide countywide planning functions including maintenance of the CoIWMP.

Policy 7.6.1 : The Authority shall be responsible for preparation and maintenance of the CoIWMP, including conformance findings and preparation of revisions or plan amendments.

Policy 7.6.2 : The Authority shall undertake additional countywide or subregional planning efforts as needed.

Implementation:

The Authority's JPA provides that the Authority is responsible to conduct studies and to prepare, adopt, revise, amend, administer, implement and enforce the Alameda County CoIWMP. The Authority and Alameda County Recycling Board are also preparing a joint strategic planning document to address areas of common interest. Additional planning efforts include maintenance and distribution of disposal reporting information,

maintenance of rates and services database for all jurisdictions in the county for comparison purposes, and maintenance of diversion program results for each jurisdiction.

OBJECTIVE 7.7 : To ensure an exchange of information and ideas among member agencies.

Policy 7.7.1 : The Authority shall provide opportunities for member agencies to share experiences, ideas and information in order to improve program design.

Implementation:

The Authority's Local Task Force/Waste Reduction Advisory Board and member agency staff Technical Advisory Committee are the primary means of exchanging information. The Authority will also promote special events, tours and seminars for Authority members and staff.

OBJECTIVE 7.8 : To coordinate and facilitate program implementation by individual or subregional groupings of member agencies.

Policy 7.8.1 : The Authority shall facilitate implementation of local SRRE programs. This may include planning assistance, coordination with other jurisdictions, and assistance in program design and funding.

Implementation:

The Authority provides technical and program assistance to member agencies and directly supports pilot and demonstration projects including agency-sponsored programs. The Authority is able to provide funding for local programs through mitigation fees or facility fees authorized under AB 939.

OBJECTIVE 7.9 : To implement countywide or subregional programs that are complementary to local member agency programs and will result in the more efficient provision of facilities/services, improved siting, and take advantage of economies of scale.

Policy 7.9.1 : The Authority shall implement countywide or subregional solid waste management programs with the approval of affected local agencies.

Implementation:

The Authority holds reserve landfill capacity in the Altamont Hills. The Authority implements countywide public information and education programs, a business outreach program, provides green building technical assistance, provides countywide schools technical assistance, sells compost bins, provides organics collection technical and financial assistance and landscaper waste reduction technical and financial assistance among other programs (see the Source Reduction and Recycling Plan, included as an Appendix, for more detail).

VI. SITING CRITERIA and CONFORMANCE PROCEDURES

Along with remaining countywide disposal capacity identified in Section 3 and tracked annually, Section VI includes siting criteria and the Authority's Conformance Procedures that are followed in determining whether proposed facilities are necessary and consistent with the Countywide Element. Together they act to fulfill Siting Element requirements of the Plan.

SITING CRITERIA IMPLEMENTATION PROCEDURE

A. Future proposals to establish new or to expand existing solid waste facilities that are required to obtain a Solid Waste Facilities Permit to operate shall be subject to the ACWMA Plan Amendment Procedure.

Findings of Conformance with all of the General Facility Siting Criteria in the CoIWMP would be specifically required for each project as part of the Plan Conformance and Amendment Review Procedure.

B. Local jurisdictions are encouraged to incorporate the siting criteria from this CoIWMP into their local review processes as this will avoid delay since the Authority will apply these criteria when the matter comes to the agency for a conformance determination or plan amendment.

GENERAL SOLID WASTE FACILITY SITING CRITERIA

The following criteria will guide future solid waste facility siting throughout Alameda County, and should be used in the site-selection, pre-application phase of project design and development, as well as during the Authority CoIWMP Plan Conformance Process.

These criteria in no way supersede or supplant facility siting standards, criteria or conditions of approval which may be imposed by local jurisdictions through the local permitting (land-use/environmental review) process. Individual jurisdictions are encouraged to develop policies and regulations which reflect local conditions, for incorporation into the local land-use review and approval process.

The Authority Siting Criteria are based on a broad spectrum of environmental public health, safety and land-use factors, and existing federal, state and local regulations, including: hydrogeological, geological, and seismic characteristics (structural stability); water quality; air quality; environmentally sensitive land-uses; land-use compatibility; economics (feasibility; liability; rates/fees); and legal and operational considerations.

The criteria reference three types of solid waste facilities, classified according to activities, function and service area:

1. **Small-medium scale transfer stations** and waste diversion facilities serving individual jurisdictions or a sub-regional area. Activities typically include recovery (sorting) and processing for transportation (recycling) but may also include composting activities. Capacity: less than 100 tons per day (TPD) for small facilities; 100-199 TPD for medium sized facilities.

2. **Large-scale transfer stations** and waste diversion facilities serving one or more sub-regions or countywide populations. Activities typically include recovery (sorting) and processing for transportation (recycling) but may also include composting activities. Capacity: 200 TPD and over.

3. **Landfills** are waste disposal facilities serving subregional, countywide or areawide populations.

Separate siting criteria are also proposed for Class I-III Landfills, based on State Water Resources Control Board Statutes.

TABLE 6 - 1

GEOLOGIC AND SITING CRITERIA FOR WASTE MANAGEMENT UNITS[1]

SITE CHARACTERISTICS	NEW CLASS	RECLASSIFICATION OF EXISTING CLASS I						NEW CLASS II	RECLASS. OF EXISTING CLASS II[2]	NEW CLASS III	RECLASS. OF EXISTING CLASS II-2[3]
		I	I	II-I	T/S	REC	EX				
Geologic setting	Maximum attainable isolation from groundwater; Sec. 2531(b)	Yes	Yes	Yes	Yes	Yes	Yes	Substantial isolation from groundwater; Sec. 2532(b)	As for new Class II	At least 5' adequate separation from groundwater; characteristics other than permeability will be considered; Sec 2533(b)	As for Class III
Flooding	Outside of 100-year floodplain[4]	Yes[5]	No[6]	No	No	No	No	No siting restriction			
Ground rupture	200' setback from known Holocene fault	Yes	Yes	No	No	Yes	Yes	200' setback from known Holocene fault	Exempt, except that expansions are as for new CLASS II	Not located on known Holocene fault	Exempt, except that expansions are as for new Class III

[1] Defined in Subsection 2531(a) of Title 23 of the California Code of Regulations (CCR).

[2] Defined in Subsection 2532(a) of Title 23 of the CCR.

[3] Defined in Subsection 2533(a) of Title 23 of the CCR.

[4] Facilities used only for treatment and storage may be located within prescribed areas, provided that exemption from applicable siting criteria is conditioned upon protection of treatment and storage from the geologic or environmental hazards involved.

[5] Yes means that the unit shall comply with requirements for new Class I facilities.

[6] Exemption from siting criteria does not release dischargers from the obligation to protect waste management units from the geologic or environmental hazards conditioned upon such protection.

SITE CHARACTERISTICS	NEW CLASS	RECLASSIFICATION OF EXISTING CLASS I						NEW CLASS II	RECLASS. OF EXISTING CLASS II[2]	NEW CLASS III	RECLASS. OF EXISTING CLASS II-2[3]
Rapid geologic change	Outside subject area (potential to impair containment)	Yes	Yes	No	No	No	Yes	No siting restriction			
Tidal Waves: tsunamis, seiches and surge conditions	Outside subject coastal areas	No siting restriction									

TABLE 6 - 2

GENERAL SOLID WASTE FACILITY SITING CRITERIA

SITING FACTOR	SMALL/MEDIUM SCALE TRANSFER AND PROCESSING FACILITY	LARGE SCALE TRANSFER AND PROCESSING FACILITY	COMPOST FACILITY	LANDFILLS
A. Seismic	No facilities shall be placed within 200 feet of an active or recently active fault unless mitigated.			
B. Floodplains				
100 year floodplains and areas subject to flooding by dam or levee failure and tsunamis, seiches, and coastal flooding.	May be built in areas subject to 100 year flooding if protected by engineered solutions designed to preclude failure, such as berms, platforms or elevations above flood levels.			Landfills may not be located in areas subject to 100 year flooding unless protected in accord with RWQCB standards.
C. Wetlands				
Saltwater, freshwater and brackish marshes, swamps and bogs inundated by surface or groundwater with a frequency to support a prevalence of vegetative or aquatic life which requires saturated soil conditions for growth and reproduction, as defined in adopted regional or state policies.	No facilities shall be located in wetlands, unless mitigated to the satisfaction of responsible federal, state and local agencies.			
D. Endangered Species Habitat				
Rare and endangered plant and animal species and critical habitat areas.	No facilities shall be located within critical habitats of endangered species, defined as areas known to be inhabited permanently or seasonally, or known to be critical at any stage in the life cycle of any species of wildlife or vegetation identified or being considered for identification as "endangered" or "threatened" by the U.S. Department of the Interior of the State of California, unless mitigated to the satisfaction of responsible agencies.			

TABLE 6 - 2

GENERAL SOLID WASTE FACILITY SITING CRITERIA
(Cont.)

SITING FACTOR	SMALL/MEDIUM SCALE TRANSFER AND PROCESSING FACILITY	LARGE SCALE TRANSFER AND PROCESSING FACILITY	COMPOST FACILITY	LANDFILLS
E. Unstable Soils				
Steep slopes and areas subject to liquefaction and subsidence due to natural causes.	Facilities located in these areas should have engineered design features (i.e. containment structures) to assure structural stability.			Landfills may not be located in areas with 25% slope or greater or in areas subject to liquefaction or subsidence, unless mitigated.
F. Major Aquifer Recharge Areas				
Areas supplying principal recharge to a regional aquifer, as defined by adopted general, regional or state plans.	If located in these areas, facilities should provide properly designed, constructed and maintained engineering spill containment features, inspection and monitoring measures, and other environmental protection controls to prevent runoff from the facility. Landfills should be discouraged from locating in watershed areas of public reservoirs to the extent feasible.			
G. Depth to Groundwater	Facilities may be located in high groundwater areas if engineered in accord with local and State requirements.			
H. Permeable Strata and Soils				
Permeability requirements are defined in CCR Title 23, Chapter 15 State regulations.	Facilities should avoid locating on highly permeable soils or sediment. Facilities located in areas where surficial soils are principally permeable materials such as sand and gravel should provide for containment and monitoring measures.		Facilities located on these soils need to meet permeability restrictions set forth by RWQCB to protect ground water.	Landfills shall conform to the requirements of the State Water Resources Control Board.
I. Non-attainment Air Areas				

Areas not in compliance with national air quality standards for one or more measured air pollutants.	All facilities shall comply with permitting requirements of the Bay Area Air Quality Management District.

TABLE 6 - 2

GENERAL SOLID WASTE FACILITY SITING CRITERIA
(Cont.)

SITING FACTOR	SMALL/MEDIUM SCALE TRANSFER AND PROCESSING FACILITY	LARGE SCALE TRANSFER AND PROCESSING FACILITY	COMPOST FACILITY	LANDFILLS
J. PSD Air Areas				
Prevention of significant deterioration areas are those in compliance with national air quality standards.	All facilities shall comply with permitting requirements of the Bay Area Air Quality Management District.			
K. Mineral Resources Area				
Defined as Sand and Gravel in the Alameda County General Plan.	Facilities should not be sited to preclude extraction of minerals necessary to sustain the economy of the State or County.			
L. Prime Agricultural Lands/Open Space				
Areas designated as prime agricultural lands in the applicable general, regional, or state plan. Areas designated as open space in the applicable local general plan.	Prime cultivated agricultural lands should not be used for solid waste facilities/purposes unless an overriding public need is demonstrated by the applicant and suitable mitigation provided. Solid Waste Facilities may be compatible uses in open space areas, provided that the impacts to open space values are mitigated.		Composting facilities are compatible with prime agricultural land uses and can provide beneficial agricultural inputs when sited on or in close proximity to Prime Agricultural Lands.	Prime cultivated agricultural lands should not be used for solid waste facilities/purposes unless an overriding public need is demonstrated by the applicant and suitable mitigation provided. Solid Waste Facilities may be compatible uses in open space areas, provided that the impacts to open space values are mitigated.
M. Military Lands	Consideration may be given for siting solid waste facilities on military lands pursuant to DOD policy and Community General and/or Reuse Plans which may incorporate CoIWMP Siting Criteria.			
N. Other Federal, State and Indian Lands	No specific prohibition, provided that the Siting Criteria, environmental review, applicable requirements of federal, state, regional and local agencies, and the permitting processes and policies of the local jurisdiction and native nation are satisfied.			

TABLE 6 - 2

GENERAL SOLID WASTE FACILITY SITING CRITERIA
(Cont.)

SITING FACTOR	SMALL/MEDIUM SCALE TRANSFER AND PROCESSING FACILITY	LARGE SCALE TRANSFER AND PROCESSING FACILITY	COMPOST FACILITY	LANDFILLS
O. Proximity to Major Transportation Routes	Should be located to minimize distances to major transportation routes which are designed to accommodate heavy vehicles.			Should have good access to major transportation routes but may have to be distant from waste generation sites because of the significant areal requirements of landfills.
P. Proximity to Development	Road networks leading to major transportation routes should not pass through residentially developed areas, and should b demonstrated to be safe with regard to capacity, design and construction, and operations (accident rate; excessive traffic, etc.).			
i. Residential Development	Proximity is desirable to encourage use and minimize traffic and transportation (energy, air) impacts. However, a residential buffer zone of at least 500 feet is recommended, unless the developer can demonstrate as part of the permitting process that a smaller zone provides adequate protection for the public. Facility distribution should be balanced geographically.		Facility distribution should be balanced geographically. Proximity is desirable to encourage use & minimize transportation and other impacts (energy, air). A buffer of 200 feet is desirable.	Landfills shall provide a land buffer of at least 2,000 feet between the site boundaries of its permitted landfill area and any area zoned to allow any permanent residence or occupied facility, unless the developer can demonstrate as part of the permitting process that a smaller zone provides adequate protectio for the public.
ii. Institutional Facilities	Facilities should be located, designed, constructed and operated to minimize nuisance, public health or safety impacts to the public, relative to noise, litter, disease vector, dust, odors, and visual/aesthetic impacts.			

TABLE 6 - 2

GENERAL SOLID WASTE FACILITY SITING CRITERIA
(Cont.)

SITING FACTOR	SMALL/MEDIUM SCALE TRANSFER AND PROCESSING FACILITY	LARGE SCALE TRANSFER AND PROCESSING FACILITY	COMPOST FACILITY	LANDFILLS
P. Proximity to Development	**(cont.)**			
iii. Public Facilities: Schools, Churches, Hospitals, Civic Buildings, Libraries	Appropriate treatment within the buffer zone shall include a combination of vegetation and structures for screening and to improve the visual amenities of the site.			
Q. Proximity to Public Services				
Public utilities (water, sewer), protective services (police and fire) and emergency services (medical). Also, corporation yards.	Lack of available and adequate public services may preclude facility siting in some areas. Self-sufficient services may be appropriate and necessary in remote rural areas. Emergency services should be readily available, with a minimal response time.		Emergency services should be readily available within reasonable response times.	Lack of available and adequate public services may preclude facility siting in some areas. Self-sufficient services may be appropriate and necessary in remote rural areas. Emergency services should be readily available, with a minimal response time.
R. Proximity to Waste Stream	Collection centers should be easily available close to residentially zoned areas to encourage use.	May be located at a distance from waste sources because of the need for large sites and buffer zones to protect the public welfare.		
S. Appropriate Zoning				
Specified by the local jurisdiction.	Commercial, industrial and agricultural zones may be appropriate.	Industrial or Agricultural areas.	Can be located in agricultural industrial areas and watershed areas.	Because landfills require large sites, it may not be practical or economical to site them in developed commercial or industrial areas. Siting in Agricultural zoned areas, specially zoned areas, or rezoned areas may be appropriate. The intent is to locate landfills in more remote, open areas.

TABLE 6 - 2

GENERAL SOLID WASTE FACILITY SITING CRITERIA
(Cont.)

SITING FACTOR	SMALL/MEDIUM SCALE TRANSFER AND PROCESSING FACILITY	LARGE SCALE TRANSFER AND PROCESSING FACILITY	COMPOST FACILITY	LANDFILLS
T. Conformance with Approved Countywide Siting Element of the Integrated Waste Management Plan	Solid Waste Facilities shall be consistent with the goals and policies of the approved Countywide Siting Element of the Integrated Waste Management Plan, and shall be specifically designed and sized to meet the County's capacity needs, including commitments under any interjurisdictional waste agreements. Solid waste facility shall be subject to the Authority CoIWMP plan conformance process.			
U. Recreational, Cultural or Aesthetic Areas				
Historic preservation, Indian reservations, and other cultural and scenic areas, as defined in locally adopted general plans.	May be allowed to handle wastes generated by visitors, workers or residents of these areas.	Shall not be allowed in these areas unless suitable mitigation implemented.		
V. Airport Zones				
As defined in the Alameda County Airport Land Use Policy Plan.	Appropriate if consistent with ALUC Policy Plan criteria.	No facility shall be located within a Federal Aviation Agency approach zone, air installation compatible use zone, or safety zone as described in the Alameda County Airport Land Use Policy Plan unless mitigated.		

TABLE 6 - 2

GENERAL SOLID WASTE FACILITY SITING CRITERIA
(Cont.)

SITING FACTOR	SMALL/MEDIUM SCALE TRANSFER AND PROCESSING FACILITY	LARGE SCALE TRANSFER AND PROCESSING FACILITY	COMPOST FACILITY	LANDFILLS
W. Gas Migration/ Emission			Should be designed and operated to minimize negative odor emissions consistent State composting regulations.	Landfills shall be designed to include a system to provide venting control, monitoring and re-use of landfill gas (Gas Management Plan) including a condensate collection system, pursuant to State regulations.
X. Contingency	Operators of solid waste facilities shall be required to develop Emergency Contingency Plans to provide for continuity in services in the event of disruptions caused by natural or man-made events.			

Note: Any proposed facility meeting these general criteria shall be required to comply with the California Environmental Quality Act, as amended, with any applicable requirements of federal, state regional and local agencies, and with the permitting processes and policies of the local jurisdiction.

CONFORMANCE PROCEDURES

The Countywide Element is not meant to gather dust on library shelves. Rather, its purpose is to actively promote and guide development of an advanced waste management system, as outlined in the Element. Under its Joint Powers Agreement [JPA], the Authority has the power to prepare, adopt, amend, administer, enforce and implement the Alameda County CoIWMP. To fulfill this responsibility, the Authority requires that solid waste facilities conform with the plans, policies and criteria contained in the Countywide Element. This section outlines the procedures used by the Authority to make and enforce a conformance finding and guides the Authority, staff and project proponents through the conformance process.

1. Applicability

Each solid waste facility in Alameda County which is required by State law to have a Local Enforcement Agency [LEA] Solid Waste Facilities Permit [SWFP], must conform to the Countywide Element. This includes transfer stations, disposal facilities, and facilities for materials recovery or processing, composting, or transformation. Any person who proposes to construct or operate a new solid waste facility, or significantly expand or modify the operation of an existing facility, must apply to the Authority for a Determination of Conformance with the Countywide Element.

2. Exemptions from Plan Conformance Review

At the request of the project proponent, the Authority's Executive Director will determine whether a proposed project is exempt from the conformance process. Such an exemption only applies to minor changes to facility operations or design that the Executive Director determines are consistent with policies and criteria in the Countywide Element.

3. Roles of Other Agencies

The cities, and the County in the Unincorporated areas, grant operator use permits and other permits, licenses and reviews. Also, State law requires solid waste facilities, except disposal or transformation facilities, to be identified in the local jurisdiction's Non-Disposal Facility Element. Jurisdictions must complete these key local approvals before the Authority can make a Determination of Conformance.

Pursuant to its JPA, the Authority has designated the County of Alameda Department of Environmental Health and the Berkeley Health Department as the LEAs in this county. LEAs ensure that facilities operate within local and State regulations, and issue the SWFPs required under State law. In Alameda County, each SWFP shall require that the facility operate in conformance with

the Countywide Element. No new, modified or revised SWFP shall be issued until the Authority makes a Determination of Conformance or finding of exemption. The California Integrated Waste Management Board [CIWMB] monitors and approves the permitting of solid waste facilities.

The identification of responsible agencies will be made by the local jurisdiction in the course of the CEQA process.

This section covers only procedures of the Authority; successful completion of all other regulatory steps is the responsibility of the project proponent.

4. Conformance Procedure

The conformance procedure includes the following steps:

- Scoping sessions and staff review of environmental documentation prepared by the local jurisdiction.
- Staff Initial Review for Conformance [optional]
- Determination of Exemption by Executive Director [optional]
- Determination of Conformance by Authority Board
- Countywide Element Plan Amendment by Authority Board [if proposal is not in conformance with the plan]

These steps are outlined below.

a. Environmental Documentation

The Authority's first contact with a project proponent normally occurs as part of the California Environmental Quality Act [CEQA] process. CEQA documents are usually prepared by a jurisdiction with land use regulatory powers. The Authority reviews these documents as a Responsible Agency as defined by CEQA. In certain cases, such as projects that do not involve land use permits or where the Authority is the project proponent, the Authority may act as Lead Agency as defined by CEQA. Authority staff normally advise the agency preparing the CEQA document of the Authority's responsibilities and concerns. At the local jurisdiction's request, staff will participate in scoping sessions to coordinate the environmental review with the Authority's CoIWMP conformance process. The environmental documentation required by CEQA must be completed before the Authority's Determination of Conformance. The Authority will consider environmental impacts as part of its decision-making process.

b. Initial Review for Conformance

An Initial Review is optional, made at the request of the project proponent. The Initial Review provides the proponent with a staff evaluation of the potential for

conformance of the proposed project with the Countywide Element. The primary purpose of the Initial Review is to identify major assets and obstacles to the project, to guide the project proponent. The proponent is also notified of the data required to complete the conformance procedures.

An Initial Review is completed at the staff level. The results may be reported to the Authority Board. Interpretation of parts of the Countywide Element may be referred to the Authority Board.

c. Determination of Exemption

A Determination of Exemption is optional, made at the request of the project proponent or LEA. The Determination shall be made after the proposed project has completed the CEQA and local land use approval processes. The proponent must submit a project description of sufficient detail to permit a meaningful review by the Authority staff. The Determination of Exemption provides the proponent and LEA with a finding by the Authority's Executive Director that the proposed project involves only minor changes to facility operations or design and is consistent with policies and criteria in the Countywide Element. No further conformance finding is necessary.

d. Determination of Conformance

A Determination of Conformance is the key step in the conformance process. A Determination of Conformance must occur after the project has received local land use approval, is identified in the local Non-Disposal Facility Element (where applicable), and has satisfied the appropriate CEQA process.

The proponent initiates this step by filing a complete written request for Determination of Conformance with the Authority. The request must include a copy of all pertinent reports, findings and permits used in obtaining local approvals, including environmental documents contemplated by CEQA. The affected local jurisdiction will be notified of the request.

Authority staff will accept a written request as complete when the following information is included:

- A copy of local land use approval
- A copy of the local jurisdiction's finding that the facility is identified in its Non-Disposal Facility Element (where applicable).
- A copy of completed CEQA environmental documentation.
- An explanation of how the project is consistent with the criteria for a SWFP.
- A project description determined by Authority staff to be sufficiently detailed and comprehensive to allow a determination of whether or not the proposal conforms to the Countywide Element.

Criteria for Determination of Conformance

To be considered in conformance with the Countywide Element, a proposed project must be consistent with the plans, policies and criteria contained in the plan. The staff evaluates the proposal and prepares a staff report, recommendation, and draft resolution to the Authority Board regarding conformance with the plan. Normally, a conformance finding is considered by an appropriate Authority Board committee prior to consideration by the full Board. Staff will also set a public hearing for consideration of public comments on the proposal by the Board.

The Board will consider adopting a plan conformance resolution after reviewing all of the staff's findings, environmental documents, other information, and when the Board considers that the proposed project conforms with the policies, plans and criteria contained in the Countywide Element. A conformance resolution requires a two-thirds majority of the authorized vote of the Authority.

A Determination of Conformance resolution may include conditions imposed on the project. The conditions may be imposed by the Authority in order to ensure that the project conforms with the objectives of the Countywide Element. A Determination of Conformance becomes effective and continues in effect only so long as the conditions are met. As part of the Board resolution, such conditions will be included in the SWFP. Each solid waste facility must be in conformance with the Countywide Element at the time it is approved and must continue to be in conformance during its operational life.

If the Authority does not consider a project in conformance, the Authority will indicate to the applicant which policies the proposal did not meet. The proponent may modify and resubmit the application for Determination of Conformance.

Copies of the conformance resolution will be sent to the LEA and all concerned agencies. When the project is determined to be in conformance with the plan, the proponent may then proceed with the solid waste facility permit process with the LEA and CIWMB.

e. Countywide Element Amendment

If a proposal is not in conformance with the Countywide Element, the project proponent may apply for a plan amendment. Such an amendment could revise the policies, plans or criteria in the Countywide Element. In addition, the following types of facilities must be specifically designated on the Countywide Element Facilities Map and described in the plan text; this requires an amendment to the Countywide Element:

- Landfills, landfill expansions and reclassifications
- Transfer Stations and significant transfer station expansions
- Alteration or creation of any wasteshed for waste located outside of Alameda County for any landfill or transfer station. This requirement is not necessary for wasteshed changes within Alameda County because the nature of solid waste generated and processed within the County has been the subject of characterization and other studies. Further, the wastesheds for material generated within the County is known to the Authority from its involvement in aiding member agencies in franchise agreements.
- Composting facilities

Due to the fact that they usually have few negative environmental impacts and often have only localized impacts on waste management practices, the following facilities are not required to be designated on the Facilities Map or specifically described in the plan text, although they must be found by the Authority to be consistent with Countywide Element policies, plans and criteria:

- Materials recovery facilities

5. Schedule

Authority bylaws specify a monthly Board meeting. There must be adequate time for evaluation of the project by Authority staff, review by an appropriate Authority committee, and preparation and transmittal of staff reports and public hearing notices. For these reasons, application and supporting documentation for a Determination of Conformance must be submitted to staff at least 60 days prior to the proposed Authority Board meeting and hearing date. This schedule may be extended at the option of the applicant only. At its meeting, the Authority Board may require that an item be continued to a future date. Applicants should contact staff to determine Authority meeting dates and to discuss the schedule.

6. Fees

Authority staff estimates the cost to complete the conformance review and specifies the fee to be paid by the project proponent for this effort. A deposit to cover the full estimated amount is required before staff may start processing the application and before the schedule requirement stated above would take effect. Records of staff time and costs spent on the application will be maintained. The project proponent will be refunded any surplus deposited or billed for costs exceeding the deposit.

Project proponents will be charged the cost of staff review and preparation of environmental documents prepared in order to comply with CEQA.

VII. WASTE MANAGEMENT PROGRAMS

This section presents the specific programs needed to meet the goals and objectives of the Countywide Integrated Waste Management Plan.

Section 7 includes:

(1) A summary of local programs contained in locally adopted Source Reduction and Recycling Elements,

and

(2) A summary of the countywide programs that supplement or reinforce these local programs.

SUMMARY OF LOCAL SOURCE REDUCTION AND RECYCLING ELEMENTS

Each local jurisdiction in Alameda County has adopted a Source Reduction and Recycling Element [SRRE] as required by State law. The SRREs describe each jurisdiction's waste stream and its existing waste management system. Most important, the SRREs contain proposed waste diversion programs needed to reach or exceed the 25% and 50% waste diversion goals.

The SRREs were prepared in 1991-1992. Over time, individual jurisdictions modified the program characteristics and size in order to meet changing needs, conditions and opportunities. Modifications are noted in annual SRRE updates.

The SRREs include five program-specific components:

Source Reduction, Recycling, Composting, Special Wastes, and Education. Programs proposed in each component are summarized below. Information on targeted materials, diversion percentages, marketing approaches, transportation and storage is provided in the adopted SRREs themselves.

Description of Local Programs in SRREs

This section provides a matrix [Figure 7 – A] and a brief description of the programs selected and being implemented by the jurisdictions in Alameda County as reported in their annual updates to the CIWMB.

SRRE Local Program Selection and Schedule

Due to the diversity of program combinations selected by local jurisdictions, there was no single "county" approach to solid waste. However, in general, local jurisdictions emphasized residential diversion in the short-term and commercial and industrial diversion in the medium-term. In the short-term, many jurisdictions funded a wide range of programs and targeted as many sectors as possible. This approach enabled the jurisdictions to review the relative effectiveness of the programs. As was expected, the wide range of initial AB 939 programs narrowed in the medium-term planning period based on program experiences gained through the 1990's.

Figure 7 - A

SRRE Programs Summary - Year 2000															
Programs	Alameda	Alameda Co.	Albany	Berkeley	Dublin	Emeryville	Fremont	Hayward	Livermore	Newark	Oakland	Piedmont	Pleasanton	San Leandro	Union City
Source Reduction															
Xeriscaping/ Grasscycling	x		x		x	x	x	x		x	x				x
Home/On-Site Composting/Mulching	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Business Waste Reduction Program	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Procurement	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
School Source Reduction Programs				x		x			x		x	x			
Government Source Reduction Programs	x	x	x	x	x		x	x	x	x	x	x	x	x	x
Material Exchange, Thrift Shops	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Other Source Reduction										x					
Recycling															
Residential Curbside	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Residential Drop-off		x	x	x	x	x	x	x	x	x	x			x	x
Residential Buy-back	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Commercial On-site Pickup	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Commercial Self-haul	x		x	x				x	x	x	x		x		x
School Recycling Programs		x		x	x	x	x		x		x	x			x
Government Recycling Programs	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Special Collection Seasonal (Regular)	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Special Collection Events	x			x	x				x		x				x
Other Recycling															x
Composting															
Residential Curbside Greenwaste Collection	x	x	x	x	x		x	x	x	x	x	x	x	x	x
Residential Self-haul Greenwaste	x	x	x	x		x	x	x	x	x	x	x	x	x	x
Commercial On-site Greenwaste Pickup					x				x	x					
Commercial Self-haul Greenwaste	x	x	x	x		x	x	x	x	x	x		x	x	x
Food Waste Composting				x	x				x		x				
School Composting Programs				x							x				x
Government Composting Programs	x				x	x					x		x		x
Special Waste Materials															
Sludge (sewage/industrial)	x	x						x	x		x			x	x
Tires	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
White Goods	x	x	x	x	x	x	x		x	x	x	x	x	x	x
Scrap Metal	x	x	x	x		x			x	x	x	x	x	x	x

SRRE Programs Summary - Year 2000															
Programs	Alameda	Alameda Co.	Albany	Berkeley	Dublin	Emeryville	Fremont	Hayward	Livermore	Newark	Oakland	Piedmont	Pleasanton	San Leandro	Union City
Wood Waste			x	x		x	x		x	x	x	x	x	x	x
Concrete/Asphalt/Rubble	x	x	x	x	x	x	x	x	x	x	x		x	x	x
Disaster Debris	x									x	x				
Rendering	x	x	x				x		x	x	x		x		
Other Special Waste	x	x		x		x					x	x			
Public Education															
Electronic (radio, TV, Web, Hotlines)	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Print (brochures, flyers, guides, news articles)	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Outreach (tech assist., presentations, awards, other)	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Schools (education and curriculum)		x		x	x	x	x	x	x	x	x	x	x	x	x
Policy Incentives															
Product and Landfill Bans				x			x			x					x
Economic Incentives	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Ordinances	x	x		x	x	x			x	x	x		x		x
Other Policy Incentive								x			x				
Facility Recovery															
MRF	x	x		x	x	x	x		x	x	x		x	x	x
Landfill							x		x		x				
Transfer Station	x	x	x	x		x					x	x	x	x	
Composting Facility	x	x	x	x			x		x		x	x	x	x	x
Alternative Daily Cover	x	x	x	x	x	x	x		x	x	x	x	x	x	x
Transformation															
Biomass										x	x		x		
Tires		x		x	x			x		x			x	x	x

Source:
CIWMB Planning Annual Report Information System (PARIS), Jurisdiction Waste Diversion Program and Diversion Rate Summary
www.ciwmb.ca.gov/LGTools/PARIS/jurgmsu.asp

SRRE PROGRAMS DESCRIPTION

(as reported in jurisdictions' annual SRRE reports)

SOURCE REDUCTION

XERISCAPING/ON-SITE COMPOSTING

Jurisdictions provide information/technical assistance regarding practices that result in reduced need to dispose of waste offsite.

MATERIAL EXCHANGE/THRIFTSHOPS
Jurisdictions will disseminate information about businesses that collect and redistribute materials or goods.

BUSINESS/SCHOOL/ GOVERNMENT WASTE REDUCTION
Provide information to businesses regarding best practices for reducing waste generation

PROCUREMENT POLICY
Jurisdictions implement policies favoring uses of recycled, reusable products and compost.

RECYCLING and COMPOSTING

Curbside Collection
Jurisdictions support curbside collection programs for recycleable and/or compostable materials

COMMERCIAL SELF-HAUL

Jurisdictions support programs to separate recyclable or compostable materials from self-haulers.

Commercial On-site Pickup
Jurisdictions support commercial oriented programs that are the equivalent to residential curbside collection.

SCHOOL AND GOVERNMENT RECYCLING AND COMPOSTING PROGRAMS
Jurisdictions support programs that collect recyclables and/or compostables from schools or government facilities.

FOOD WASTE COLLECTION
Jurisdictions support collection of municipal food waste for composting.

SPECIAL COLLECTION
Jurisdictions will sponsor collection of bulky and oversized recyclable items such as white goods (i.e., stoves, refrigerators).

DROP-OFF/BUYBACKS
Jurisdictions will support buybacks and drop-off centers.

POLICY INCENTIVE PROGRAMS

Jurisdictions support laws or ordinances that provide incentives or legal restrictions to reduce waste disposal.

FACILITY RECOVERY PROGRAMS

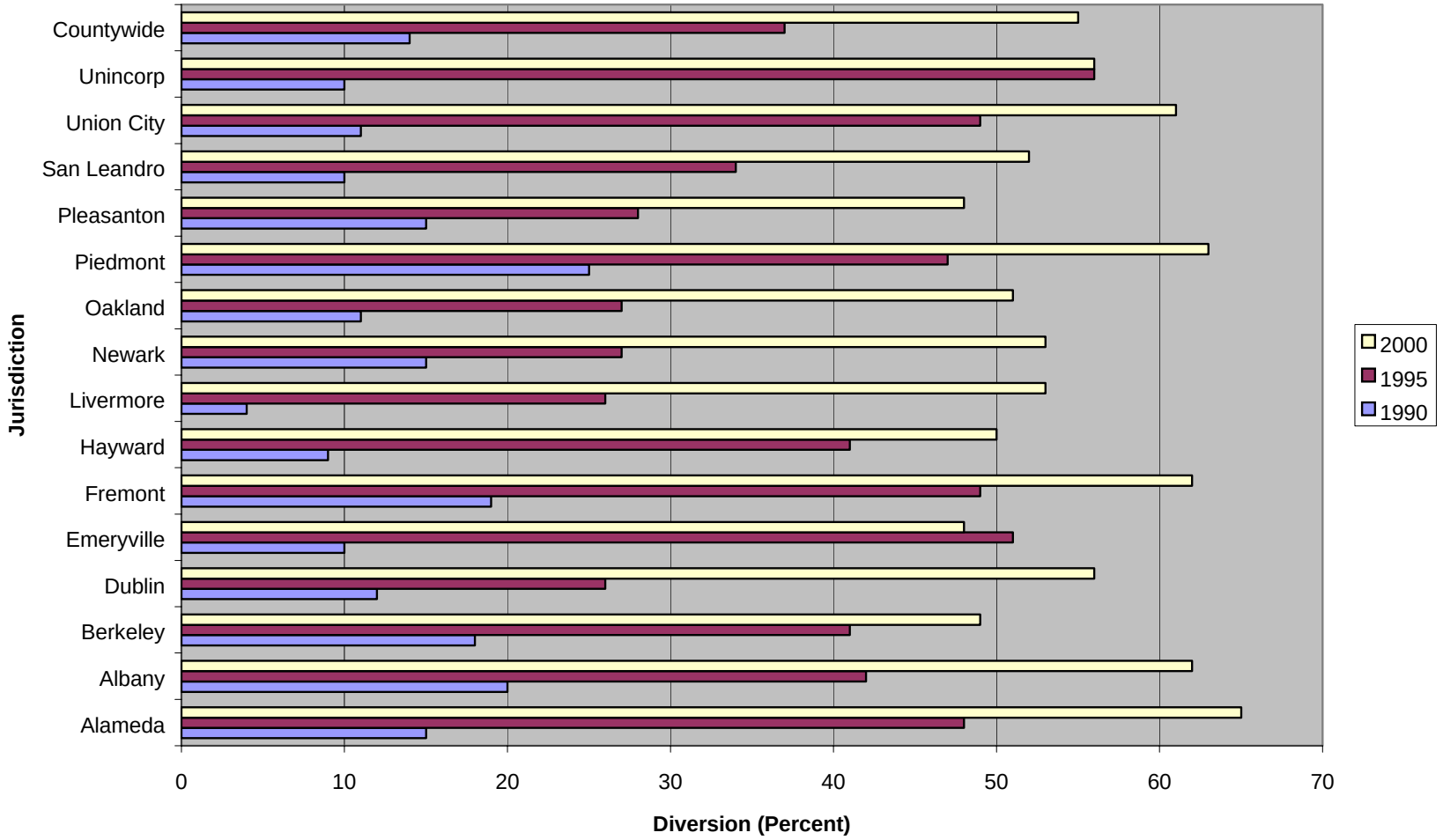
Jurisdictions support waste recovery programs at waste facilities.

SPECIAL WASTE	PUBLIC INFORMATION
VARIOUS MATERIALS Jurisdictions support diversion of various materials.	Jurisdictions disseminate public information to create awareness of recycling/waste prevention issues.

Attainment of AB939 Goals

All jurisdictions in the County have either met or very nearly met the AB939 waste reduction mandates for the year 2000. The County as a whole has met the 50% goal.

Chart 7-A
Waste Diversion for Alameda County 1990 - 2000



SRRE Cost and Funding Mechanisms

Identification of adequate funding sources is essential for implementation of the programs proposed in the SRREs. Each SRRE contains a Funding Component that identifies the options available to the jurisdictions for raising funds for waste diversion programs. Generally, jurisdictions obtain revenues from the following sources:

- Recycling Funds: Some jurisdictions will create a recycling fund to collect monies for waste management related activities. These may be imposed pursuant to local collection agreements. As provided under the Authority's JPA, local jurisdictions and/or the Authority may also use AB939 powers to impose per ton fees on waste collected and/or disposed.
- Mitigation Fees: These fees are imposed on a per ton basis on waste disposed at the county landfills and are intended to mitigate the environmental impacts of landfill disposal. The Authority collects, holds, and expends the fees on appropriate projects. Other mitigation fees for environmental impacts pursuant to CEQA and requirements of this plan may be imposed.
- User Fees: These fees are charged directly to the party(ies) receiving the specific services, such as yard waste collection.
- Debt Financing: Debt financing mechanisms include General Obligation Bonds, Revenue Bonds, Joint Powers Authority Revenue Bonds, and Lease Revenue Bonds. These options are appropriate for funding costly capital projects. The major advantage of public debt financing and ownership is the tax free status of the bond which effectively reduces the capital and operating costs of the project.

Since the SRREs were prepared in 1991, the Alameda County Measure D initiative has been upheld by the courts and is now being implemented. Measure D imposes a $6.95 per ton fee on waste disposed at the Altamont and Vasco Road Sanitary Landfills. No Measure D fee is imposed at the Tri-Cities Landfill which serves Fremont, Newark and Union City. However, those cities have imposed an equivalent fee at that landfill.

The purpose of the Measure D fee is to fund waste reduction programs. Currently 50% is provided to local jurisdictions. The remainder is allocated for countywide purposes by the County Recycling Board. It is anticipated that, at least in part, local jurisdictions may use their Measure D funds in lieu of other funding sources identified in the SRREs.

Countywide Facilities and Programs Identified in Local SRREs

In all SRRE updates, local jurisdictions propose to participate in multi-jurisdictional facilities: Material Recovery Facilities and Mulching/Composting Facilities. These regional or sub-regional facilities are examined in detail later in this chapter.

Table 7-1 below summarizes the countywide source reduction programs frequently identified in local SRREs. These programs are described on the next page.

TABLE 7 - 1

ALAMEDA COUNTY
COUNTYWIDE PROGRAMS IDENTIFIED IN LOCAL SRREs

PROGRAM	AGENCY RESPONSIBLE FOR : DEVELOPMENT	OPERATION	MONITORING	EVALUATION
ALAMEDA COUNTY HOME COMPOSTING [ACWMA - HCP]	ACHCP under Alameda County Health Department	ACWMA's HCP*	ACWMA's HCP*	ACWMA's HCP*
C&D PROGRAM	ACWMA/ Jurisdictions	Jurisdictions / ACWMA	ACWMA	ACWMA
SCHOOL PROGRAMS	ACWMA/ Jurisdictions	ACWMA/ Jurisdiction	ACWMA/ Jurisdiction	ACWMA/ Jurisdiction
LARGE EMPLOYER PROGRAMS	ACWMA/ Jurisdictions	ACWMA/ Jurisdictions	ACWMA/ Jurisdictions	ACWMA/ Jurisdictions
OUTREACH AND EDUCATION	ACWMA	ACWMA	ACWMA	ACWMA
SOLID WASTE FACILITY DIVERSION	ACWMA	ACWMA	ACWMA	ACWMA
FOOD WASTE	ACWMA	ACWMA	ACWMA	ACWMA/ Jurisdiction
PROCUREMENT POLICY	ACWMA/ Jurisdictions	ACWMA/ Jurisdictions	ACWMA/ Jurisdictions	ACWMA/ Jurisdictions

Proposed Countywide Diversion Strategies

State law requires each CoIWMP to identify countywide disposal alternatives which are proposed to meet landfill diversion goals of 25% in 1995 (the short-term and 50% in 2000 (the medium term). These diversion alternatives are listed in jurisdictions SRRE annual reports, with respect to countywide programs and in Chapter 5 under policy implementation. To this end, the Authority and its member agencies have developed a composite strategy which consists of three tiers of effort: (1) existing local source reduction and recycling programs and facilities, as summarized earlier in this Section; (2) new jurisdictional efforts, as identified in SRRE annual reports; and (3) proposed countywide diversion strategies. This section of the Plan focuses upon the third tier - countywide activities - needed to assist local jurisdictions to achieve or exceed mandated waste diversion goals, which in Alameda County is 75% by the year 2010.

Need for Countywide Diversion Programs

The SRRE's for Alameda County jurisdictions propose mostly local programs to meet or exceed the short-term goal of 25 percent diversion by 1995. Local SRRE's identify only a minor role for countywide programs, primarily source reduction, in meeting the short-term goal. Nevertheless, additional countywide source reduction and material diversion programs are needed to ensure the maintenance of the 50% diversion rate and to move toward the 75% rate waste diversion goal.

Countywide programs are developed by the Alameda County Waste Management Authority and the Alameda County Source Reduction & Recycling Board, as well as with the Alameda County Health Services Agency with regards to the countywide Household Hazardous Waste Management program. Program development includes Local Task Force and member agency input and participation as well as provision of technical assistance, coordination and funding for a variety of local programs. Proposed countywide source reduction and recycling programs are described in detail in the attached Source Reduction and Recycling Plan. The Recycling Plan is the County's strategic plan for achieving a 75% and beyond diversion rate by 2010. The following describes the countywide programs selected in jurisdictions' annual SRRE reports.

Construction and Demolition

The construction and demolition (C&D) program focuses on diverting waste from construction of new buildings and demolition of old buildings and developing new resource-efficient buildings using recycled materials and other sustainable solutions. The specific projects include C&D diversion, green

building projects for public buildings and residential developments, and building industry outreach and education.

C&D Diversion

The C&D diversion program offers regulatory tools, financial incentives, and technical assistance to member agencies, facility operators, and C&D generators.

Model C&D Ordinance

The Agency has developed a model C&D ordinance and provides technical assistance to member agencies in tailoring the model ordinance to each jurisdiction's specific needs. The model ordinance requires project proponents to develop waste management plans designed to divert 50 percent of materials generated by each project. Some versions of the ordinance include a deposit system and reporting requirements as a condition of receiving the building permits, which ensures that diversion actually occurs.

Interim C&D Rebates

The Agency has encouraged its member agencies to adopt C&D ordinances, which may require generators to recycle mixed C&D materials. To relieve pressure on the C&D generators and to ensure the success of the new C&D ordinances, the Agency provides interim rebates to C&D generators in jurisdictions that have adopted C&D ordinances. The Agency provides rebates of $10 per ton, which are based on an estimated differential cost for a longer transport to mixed debris recycling facilities outside Alameda County. The generators must deliver the C&D debris to qualified C&D processing facilities. Qualified facilities must divert over 50 percent of incoming C&D materials, 25 percent of which must be directed to uses other than Alternative Daily Cover. The interim rebate program is intended to be temporary. Agency staff will monitor the cost competitiveness of any in-county facilities. Because C&D generators are required to recycle in jurisdictions with C&D ordinances, the Agency may continue the interim rebates at both in-county and out-of-county facilities, if the tipping fees at the in-county facilities are too high to attract the large demolition contractors who have been the main users of the interim rebates to date. The Agency intends to evaluate the need for the rebates on an annual basis. The rebate program has funded eight recent C&D diversion projects, covering 3,500 tons of C&D delivered to recycling facilities instead of to landfills, including the recycling of 2,000 tons of C&D from the Jack London Village demolition in downtown Oakland.

GREEN BUILDING FOR MEMBER AGENCIES

The Agency has promoted the concept of green building, which includes protecting the environment and creating a safe indoor environment through job-site recycling, waste minimization, and use of resource-efficient and low-emission materials and technologies. The green building program for public agencies and multi-family projects targets member agencies, institutions, and non-profit multi-family developers that produce large capital projects. The Agency has developed a model green building policy and ordinance for civic buildings, as well as model specifications for C&D debris management. The Agency manages a competitive green building grant program for member agencies.

The Agency also conducts green building training presentations, on-site training, and seminars for member agency staff, including architects, engineers, and capital project managers. The Agency is in the process of developing green building guidelines for multi-family affordable housing, a green building resource library, and green building case studies.

GREEN BUILDING FOR RESIDENTIAL DEVELOPMENT

Agency staff provide technical assistance on green building to the residential construction and building industry. The Agency has developed several resources to help contractors, developers, architects as well as homeowners build “green,” including Residential Green Building Guidelines for Remodeling and New Home Construction; a comprehensive Green Building Materials Resource list; a green points rating system; a Speakers Bureau with green building professionals; and numerous workshops, trainings, and presentations. The residential green building program emphasizes salvage of reusable materials and reuse of existing buildings, job site recycling, recycled content and sustainable building materials, and durable construction methods as well as energy efficiency, resource conservation and improved indoor air quality. Eastern Alameda County has been a target area for promoting the New Home Guidelines, since much of the in-county residential growth and new construction has been in that area. Northern Alameda County has been a target area for the Speakers Bureau, which promotes the Remodeling Guidelines. This portion of the county is generally "built out" and most residential building projects involve remodeling. Several contractors have used the green building guidelines as part of their building plans, including the Centex demonstration home in Livermore and Pulte Homes, Greenbriar Homes, and Delco Builders in Pleasanton.

BUILDING INDUSTRY OUTREACH

The Agency conducts outreach to contractors and building industry professionals through publications, workshops, and its award-winning traveling exhibit, the Resource-full Showcase Trailer. The Agency has also produced and distributed a Builders' Guide to Reuse and Recycling and a construction job site recycling case study. The Agency participates in several conferences each year and presents workshop, seminars, and training in green building, C&D diversion, and policy development.

Food Waste

According to the Agency's 2000 Waste Characterization Study, food waste and other compostable organics make up a large portion of Alameda County's residual waste stream.

The Agency has developed several projects to address these material types, with the goal of removing material from the waste stream and ensuring adequate processing capacity to handle the material. These projects include:

- Organics processing capacity development
- Organics technical assistance, including:
    - Residential food waste subsidies and incentives
    - Commercial food waste subsidies and incentives
    - Facility enhancements
    - Collection enhancements
    - Organics diversion research
    - Franchise agreement assistance

ORGANICS PROCESSING CAPACITY DEVELOPMENT

Compostable organic material comprises over 35 percent of the countywide waste stream. Since 1999, the Agency has been actively engaged in pursuing in-county capacity for source-separated organics processing. Currently, program operators offering food waste and organics composting must divert these materials to one of four fully permitted facilities in the Bay Area. Market stability, compost quality, and transportation costs and impacts have motivated the Agency to seek in-county capacity. The Agency has set aside funds to develop in-county capacity through either the public or private sector. It is currently pursuing public-private partnerships to develop in-county capacity for organics processing. The Agency would fund up to two private organics processing projects that meet the guidelines of the Agency and the needs of its member agencies.

The guidelines require a minimum capacity of 400 tons per day or 124,800 tons per year (based on operation six days per week). Should the Agency be successful in funding two facilities, Alameda County would have nearly 289,000 tons per year of capacity—enough to divert about 50 percent of the total tons now disposed.

The Agency conducted a feasibility study and issued a Request for Letters of Intent to Partner for in-county organics processing capacity in April 2001. Seven vendors responded to the Request in May 2001. In August 2001, five out of the seven vendors submitted partnership proposals. The Agency is currently negotiating with two of the vendors that have substantially conformed to the composting facility guidelines. Throughout the planning process, the Agency solicited input from the member agencies and other stakeholders. Each proposed project must comply with the California Environmental Quality Act (CEQA).

ORGANICS TECHNICAL ASSISTANCE

In order to effectively divert organic materials from the waste stream, collection programs and facilities need to be developed to convey the material to processing facilities. The organics technical assistance program is designed to assist member agencies in developing new organics collection infrastructures.

Subsidies for Food Waste Diversion

The residential and commercial food waste subsidy programs are designed to defray the capital costs of implementing new collection programs. In addition, the Agency has also developed an incentives program for food waste diversion (as a part of its larger incentives project). The incentives program provides a one-time payment to member agencies for accomplishing a specific food waste diversion goal. Continuation of both subsidy and incentives payments will be evaluated on an annual basis.

Facility Enhancements

As a component of its facility enhancement program, the Agency has provided funding to Berkeley to expand the organics processing capacity of the Berkeley Transfer Station. The Agency provided a one-time grant to enhance organics diversion at the facility and to ensure that the facility can provide regional organics processing capacity for neighboring member agencies.

Collection Enhancements

As a component of their container purchase program, the Agency provided a one-time grant to Emeryville for the purchase of plant debris collection carts. The grant will enable Emeryville to expand and improve its plant debris collection program.

Organics Diversion Research

The Agency has undertaken a number of studies to measure the impact of food waste diversion programs. They have assisted Berkeley and Oakland in evaluating opportunities for diverting additional food waste from the commercial sector. A recent study of organics generation from Oakland city crews examined where material is flowing through the system and how it could be diverted to composting.

Franchise Agreement Assistance

A component of the Agency's franchise agreement technical assistance program includes assisting the member agencies with RFPs for new collection services, drafting new collection agreements, and amending existing franchise agreements to develop C&D, commercial recycling, and food waste composting programs. The Agency has assisted Alameda, Livermore, and Union City to include provisions requiring pilot food waste composting programs in their new franchise agreements.

On-Site Composting and Organics Waste Prevention

The on-site organics program includes home composting education and outreach, the master composting program, on-site institutional mulching and composting, residential grasscycling, and waste reduction outreach to landscape and turf professionals.

HOME COMPOSTING EDUCATION AND OUTREACH

The home composting program has been a project of the Agency since 1991, which makes it the Agency's oldest on-going waste prevention program. Prior to becoming an Agency program, home composting was a project of the Alameda County Vector Control program, funded by the Agency. The goal of the program has been to educate residents about managing plant debris and food waste on-site through composting and vermiculture. Home composting targets the nearly 130,000 tons of food waste and plant debris remaining in the residential waste stream, from both single-family and multi-family generators. Home composting reduces the amount of material that requires more expensive hauling and off-site treatment at compost facilities.

The program includes several elements, such as:

- **Workshops.** The Agency has conducted workshops throughout Alameda County that have educated more than 12,000 residents over the past 10 years on the tools and techniques of home composting.

- **Demonstration gardens in Livermore and Oakland.** The gardens are maintained by program staff, with landscapes using compost generated on-site. They provide a venue for home composting workshops and permanent exhibits.
- **Community events.** The Agency has participated in 200 events since 1996 and has reached more than 100,000 potential composters.
- **Award-winning video.** "Do the Rot Thing" has been distributed to compost bin customers (5,000 per year), and portions have been excerpted on local cable access channels. A total of 17,000 videos have been distributed.
- **Rotline 510-444-SOIL.** The composting hotline provides technical assistance to home composters. It is staffed by both program staff and staff from the in-house recycling information service.
- **Compost and worm bin distribution.** This includes distribution of low-cost, subsidized bins sold at one-day events and through direct mail, bill inserts, and other advertising. Over 46,000 bins have been sold since 1993, reaching 16 percent of all single-family homes in Alameda County. The use of these compost bins since the program's inception has led to more than 56,000 tons being diverted. The program goal is to have active home composters in 20 percent of all single-family homes by distributing at least additional 12,000 bins countywide. This level of saturation (20 percent of all single-family homes) could divert as much as 12,000 tons annually, or nearly 100,000 tons over the life of the bins.
- **Education and outreach**. The program reaches 6,000 potential home composters annually through workshops, events, and distribution of 20,000 brochures per year.

Master Composter

Program staff train volunteers to become community compost educators. Graduates of the program provide a minimum of 50 hours of community service, educating residents through workshops and outreach. Since 1991, the program has trained nearly 250 master composters, who have contributed over 11,000 volunteer hours and educated more than 11,000 residents. The master composter program fosters interest in composting as a profession or a pastime. The Agency keeps the master composter alumni active in the program through events and volunteer opportunities. Graduates of the program are eligible for continuing education credits through California State University at Hayward, Los Positas Community College, and Merritt College. Master composters will also be taught sustainable landscaping concepts.

On-Site Institutional Mulching and Composting

The program provides technical assistance and funding to mid-to-large-scale generators (including schools, businesses, and public institutions) to establish composting or mulching systems on site. Program staff members have provided technical assistance to the Alameda County District Attorney's office, the Alameda County Public Works Department, the East Bay Regional Park District, Dunsmuir Historic Estate, the Hayward Area Recreation Department, Merritt College, the Oakland Public Works Department, the Oakland Zoo, and the San Lorenzo School District. The program has provided funds to purchase equipment including worm bins, compost bins, and chippers. The program has assisted these large generators in diverting over 1,200 tons per year through on-site composting and mulching. Program staff members are developing screening criteria in order to prioritize projects, since small-scale projects can take as much staff time as large-scale projects.

Residential Grasscycling

Grasscycling (leaving grass clippings in place for waste reduction and lawn care enhancement) has always been a component of the home composting message. However, the Agency's new residential grasscycling program expands the services offered to the public. Program components include a residential grasscycling home page on the Agency's Web site, new tabletop displays and graphics, new home composting and grasscycling brochures, a grasscycling video, and a mulching mower exchange in conjunction with the bin sales events. At the Agency's first mower exchange event, the program sold 366 mowers, including push reel, cordless, and corded electric mowers. Surveys of the people purchasing mowers indicated a high level of satisfaction with the mowers and a large increase in grasscycling. The response to the event was strong countywide, and the Agency plans to offer an event this fiscal year. Based on participation in this event, the Agency will evaluate whether to hold future events.

Waste Reduction Outreach to Landscape and Turf Professionals

The outreach program to landscape and turf professionals is directed at the 69,000 tons of plant debris, or four percent of total disposal, remaining in the self-haul and roll-off waste streams. The project promotes awareness of best management practices within the landscape profession to increase the practices of grasscycling, mulching, and composting. Project staff have produced a Landscaper's Guide to Mulch, which includes local examples of how and why to use plant debris in mulch applications. Over 2,500 mulch guides have been distributed, and the guide has been used as a model statewide. The project has also produced the Landscaper's Guide to Grasscycling, which promotes the benefits of grasscycling to landscape professionals. Over 3,000 grasscycling guides have been distributed countywide as well as 5,000 "client guides", brochures promoting the benefits of grasscycling that landscapers distribute to their clients. Project staff members have documented examples of successful grasscycling and mulching

through two local case studies. The Agency has succeeded in reaching more than 500 landscaping professionals through workshops and conferences. The Agency has also convened two series of advisory panels of landscape maintenance professionals. Goals of the project include developing a Sustainable Landscaping Guide, a Plant Selection Guide, and additional case studies, as well as expanding the outreach and education opportunities to landscapers throughout Alameda County.

The next step is to promote a broader array of sustainable landscaping practices such as designing with nature to reduce plant waste, conserve water and incorporate integrated pest management practices through both a residential and landscaper outreach campaign.

SCHOOLS

There are 330 public schools in Alameda County, within 18 individually governed school districts. In addition to diverting recyclable materials from disposal, the principal reason for the schools program is to create changes in behavior over time. Children who recycle at school will recycle at home and encourage parents to recycle at home and at work. Recycling becomes a good habit or a core value that lasts a lifetime.

School Grants

The Agency maintains an active grant program that has funded projects in nine out of the 18 school districts countywide. The Fremont and Livermore school districts have maintained active and ongoing school recycling and curriculum programs through continued support from city recycling coordinators and city-sponsored consultants. The San Lorenzo school district has had continued success in diverting plant debris with a chipper provided through a grant from the Agency. Several schools receive composting, worm bins, and compost education through the Agency.

Environmental Education

- **Worms and Composting in Schools and 4 Rs**

  The Agency has developed in-house environmental education programs (Worms & Composting in Schools and 4 Rs), which have reached nearly every school in the county and have been instrumental in informing schools about the Agency and its many programs and resources. The programs provide free worm bins and worms to teach students about the benefits of composting organic materials.

- **Education Service Providers**

The Agency also funds several environmental education projects to introduce recycling-related curricula into the schools.

School Infrastructure Project

The Agency has found working with individual teachers and schools to be an inconsistent method of creating significant and effective support for a school-wide recycling collection program. In FY 2002-03, the Agency will shift to a StopWa$te type approach where buy-in from the top levels of upper management is obtained prior to providing assistance. Instead of assisting individual schools in creating a recycling collection program, the Agency will work first with school districts and get support from all levels of the school hierarchy through a policy adopted district-wide. District support for school recycling is critical because the district generally negotiates a refuse and recycling contract for all of the schools within that district. To achieve broad based support, staff will work with all administrative levels of a school, including the district, principals, teachers, custodial staff, and member agency recycling staff in developing recycling systems.

Additionally, part of the approach is to leverage what has been the more in-demand part of the schools program with recycling collection. In other words, criteria can be established for accessing field trips, assembly programs and classroom presentations. Such criteria would prioritize the availability of services for schools in districts that have adopted a district-wide recycling policy or signed a recycling commitment letter. Once a commitment is obtained, the Agency would provide a variety of financial and technical assistance to assist in developing a collection program. The goal of the program is to have school-site recycling implemented in all school districts by 2010.

LARGE EMPLOYERS AND MARKET DEVELOPMENT

The Business Assistance Program brings a multi-faceted approach to the non-residential sector, where the majority of waste is still generated. This sector consists of businesses, public agencies and institutions (including colleges) and includes commercial, industrial and office environments. Programs are designed to prevent waste, boost resource efficiency and materials recovery, and enhance markets for recyclable materials.

Large and medium sized waste generators are targeted for assistance through the StopWa$te Partnership. The Partnership is a collaborative effort between the Agency, Economic Development Alliance for Business, East Bay Municipal Utility District, PG&E and the member agencies. The Partnership focuses its resources on medium and large generators since they generate the majority of waste. The Partnership provides comprehensive environmental assessments and technical assistance to reduce waste. These comprehensive assessments

evaluate a company's ability to reduce materials use, waste, wastewater, and energy and water consumption. Recommendations are provided to help businesses and institutions cut costs while improving their environmental performance.

The StopWa$te Partnership and many other Agency efforts support direct involvement by waste generators in segregating their recyclables from garbage. In addition to this active approach, the Agency supports a role for the more passive sorting of recyclables-rich loads from businesses that can't, don't, or won't separate their waste. This approach involves targeting recyclables-rich loads of commercial, self haul and debris box garbage for mechanical sorting at upgraded transfer stations, such as the Davis Street Materials Recovery Facility.

Small business recycling is addressed by several different projects of the Agency and its member agencies. Through the Franchise and Ordinance Assistance project, cities receive model contract language requiring service providers to provide a minimum level of recycling for all businesses, including the small ones who tend not to receive service from private sector providers. The Agency encourages franchise language to promote non-exclusive collection of commercial recyclables. Additionally, the Agency provides $1 million of funding to member agencies for non-residential programs, and some member agencies use this money to support small business recycling programs. The Green Business Program receives financial support from the Agency and is administered by Alameda County's Small Business Development Center. The Green Business Program offers resource efficiency services to smaller, consumer-oriented businesses such as printers, restaurants and auto body repair shops. The Agency is also interested in testing additional approaches for small businesses in the next several years, including financial incentives for participating in waste prevention projects.

In the area of market development assistance, the Agency identifies opportunities in emerging markets and provides financial and technical assistance. Through the Revolving Loan Fund, the Agency provides low cost financial assistance to companies so that they can expand their consumption of recycled materials or improve product quality. The Agency will also provide expanded resources for both businesses and public agencies in the area of recycled product procurement.

Waste prevention is an increasing focus area for the Agency's business outreach efforts. The Agency's Waste Production Measurement Study, completed in 2002, identified activities or functions that should be most amenable to an additional focus on waste prevention. This focus is taking the shape of a combination of the following: technical assistance to specific industries, financial incentives for implementing waste prevention best

practices, and the provision of environmentally preferable purchasing resources.

Funding Assistance

The Partnership also provides direct funding to businesses and institutions to help implement waste reduction projects. This funding, subject to change, currently includes:

- **Mini-grants.** The mini-grants are streamlined to be used for one-time funding requests of up to $5,000 for active Stop Wa$te clients.
- **Monetary business efficiency awards.** These are competitive grants of up $100,000. Ten projects have been awarded to date, with an average award of $25,000–$30,000.
- **Market development assistance program.** This program provides technical assistance and low-interest loans for capital projects.
- **Incentive payments.** A part of the incentives program, incentive payments are made on a per-ton basis for new waste reduction programs.

Business Waste Reduction Guides

The Agency publishes and distributes many outreach pieces, brochures, and guides designed to motivate business managers to implement new waste prevention programs, including:

- Re-Think Your Bottom Line: A Resource Guide for Alameda County Businesses to Reduce, Reuse and Recycle
- RECYCLExpress: The Mixed Paper Recycling How-To Guide
- Case studies of Stop Wa$te program participants

Recognition

Program experience has demonstrated that businesses are not always motivated solely by the bottom line, but require additional motivators, such as inspections or certification programs (ISO 14001), peer recognition awards, or publicized case studies. The Partnership presents an annual award recognizing outstanding program participants. The Agency also profiles program participants through case studies posted on the program's home page on the Agency's Web site and through publications.

Solid Waste Facility Diversion

The Agency may be unique among large regional waste management agencies in that it does not own or operate any recycling or solid waste facilities. It serves in an advisory capacity to its member agencies, but does not exert flow control over the solid waste or recyclable materials streams.

According to the Agency's 2000 Waste Characterization Study, the roll-off and self-haul waste streams are growing compared to the residential and commercial waste streams. As member agencies implement programs to divert residential and commercial waste, these waste streams are shrinking. Programs to reach the self-haul and roll-off sectors are typically provided at transfer stations or disposal facilities. It is difficult for the Agency or its member agencies to influence the programs provided at the disposal facilities, and thus the Agency is increasingly focusing on ways to increase diversion at these sites. These facilities were designed with a focus on transfer and disposal; opportunities to recycle prior to entering the fee gate are relatively few.

Materials Recovery Facility Capacity Expansion

The Agency has recognized that processing recyclable-rich loads prior to landfilling or "recovery of last resort" may be required to achieve 75-percent diversion. As a part of the material recovery facility capacity expansion project, the Agency offers payments of up to $25 per ton for regional projects, those that serve at least two member agencies diverting new materials from disposal. The goal of the program is to support projects that result in significant new diversion of a minimum of 10,000 tons per year per project. The Agency will commit to multi-year projects for up to 5 years. The Agency expects that any new diversion facilities will continue to operate after the end of the five-year subsidy period. Per-ton payments are not made for materials diverted to ADC. The Agency has designated a fund reserve for this program. With the exception of the Berkeley Transfer Station, disposal and processing capacity in Alameda County has been developed by the private sector. Solid waste facilities capable of processing mixed loads prior to disposal include:

- The Altamont Landfill in unincorporated Livermore, owned and operated by WMAC
- The Berkeley Transfer Station, owned and operated by the City of Berkeley
- The Davis Street Transfer Station in San Leandro, owned and operated by WMAC
- The Pleasanton Transfer Station in Pleasanton, owned and operated by PGS

- The Tri-Cities Landfill in Fremont, owned and operated by WMAC, and scheduled to close in early 2003 unless current capacity is expanded
- The Vasco Road Landfill in unincorporated Livermore, owned and operated by Republic Services.

The Agency has approached each of the program operators to solicit interest in improving processing capacity. The Agency is also subsidizing a project at the Davis Street Transfer Station. The project will include:

- A new tipping area and a sort line for recyclable-rich roll-off and self-haul loads
- The sort line is projected to recover 35 percent or more of incoming loads (or 27,820 tons per year or more)

The Agency continues to seek other opportunities to divert roll-off and self-haul materials at the other facilities in the County.

GENERAL ADVERTISING AND PROMOTION

Outreach and education is a core function of each of the Agency's programs. In addition to program-related promotion, the Agency conducts general advertising of waste prevention related themes and events; participates in regional, state, and national outreach programs; assists member agencies in developing campaigns and materials; and maintains a comprehensive recycling information system.

Multimedia Support—Agency

This program focuses on public awareness of the Agency and its programs. The Agency puts its message out through a broad spectrum of media, including printed brochures and mailers, television spots and programming, radio spots and writing, and Web site features and promotions.

- **Print media.** Print media covers a broad range of promotional pieces, including annual reports, BART station posters, and specific pieces to promote Agency programs, such as case studies, presentation graphics, and guides.
- **Television.** The Agency has produced several 30-second spots on waste prevention and recycling. In fiscal year 2000-01, they were aired on cable television (2,400 spots), Community Television (1,200 spots), and KQED (88 spots, reaching 236,000 households per week). They have also produced 30-minute features for Community Television.

- **Radio.** The Agency maintains an ongoing relationship with "Trash Talk" on KCBS, and it provides writing for the show and advertising through promotional spots.
- **Internet.** The Agency continuously expands and improves its Web site. Expansions will include 30-second commercials and outreach pieces. The Web site provides a one-stop shop for all Agency programs, reports, agendas, and resources.
- **Videos.** The Agency produces high-quality videos distributed through Agency programs, state programs, and community access cable television.
- **Awards.** The Agency is recognized by local, state, and national organizations for Agency programs and promotional campaigns, including the U.S. Conference of Mayors, the Governor's Environmental and Economic Leadership Award, the National Educational Film and Video Festival, the California Resource Recovery Association, and the National Recycling Coalition.

Multimedia Support—Member and Regional Agencies

This program provides technical assistance and funding to member agencies and regional, state, and national organizations.

- **Member agency campaigns.** The Agency provides technical assistance, graphics, and translation services to member agencies to develop campaigns to promote local projects. Agency staff developed a comprehensive program for the Castro Valley Sanitary District food waste program and used oil campaigns, as well as providing ongoing marketing services to Alameda County's household hazardous waste program.
- **Regional campaigns.** The Agency provides sponsorship and technical assistance to regional campaigns, such as the "Save Money and the Environment Too" and "Buy Recycled Paper" campaigns that are directed at influencing consumer behavior.
- **State and national campaigns.** The Agency sponsors the California Resource Recovery Association's annual state recycling conference and the National Recycling Coalition's annual congress and symposium. The Agency also promotes America Recycles Day and Second Chance Week.

Recycling Information Services

This program provides comprehensive educational, informational and technical services on waste prevention, reuse, composting and recycling to residents, businesses, institutions and member agencies.

- **Recycling Hotline and Home Composting "Rotline"**. The Agency's Recycling Hotline (877-STOPWASTE) provides information and assistance on how and where to recycle in Alameda County. The Agency's "Rotline" (444-SOIL) provides technical assistance to home composters on how to establish and maintain their compost piles. Rotline staff also sell compost bins over the telephone and provide troubleshooting tips to practicing composters. The telephone lines are staffed with live resource specialists every business day, responding to over 11,000 calls annually. Both the Hotline and the Rotline respond to many calls about general recycling and environmental issues. Resource specialists are trained to answer a wide variety of questions and will research answers or refer calls to other agencies or information sources when appropriate.
- **Internet**. The Agency's website includes a section called "How and Where to Recycle in Alameda County". This section allows visitors to access to a comprehensive database of over 650 recycling and reuse vendors that process over 340 different types of materials. This database is updated on an ongoing basis.
- **Alameda County Recycling Guide**. The Agency prepares and distributes its comprehensive Recycling Guide to libraries, member agencies, organizations, businesses, and individuals.
- **Resource Library**. The Agency maintains a Resource Library, which includes information on recycling and waste prevention topics, as well as detailed information about Agency programs and programs in each member agency.

Attitude Survey

The Agency recently conducted an attitude survey to assess the public's understanding of waste-prevention issues, in order to better target material for broad dissemination. The project included both a countywide survey and focus group sessions. The survey identified a high participation rate and a willingness to recycle. However, the concepts of buying recycled products, composting, and source reduction were not well understood. The Agency will use the attitude survey to inform its future program planning.

Although the jurisdictions have specifically selected these programs for countywide implementation in their SRRE, other strategies, detailed in the Source Reduction Recycling Plan, are necessary to reach the 75 percent diversion goal.

ALAMEDA COUNTY HOUSEHOLD HAZARDOUS WASTE MANAGEMENT COUNTYWIDE PROGRAM DESCRIPTION

Background

Alameda County, along with all the cities in the County, has developed a countywide Household Hazardous Waste [HHW] program. The Alameda County Environmental Health Department, with policy direction provided by the Alameda County Waste Management Authority, developed a Household Hazardous Waste and Mini-Generator Collection Program. In August 1990, a fee of $1.25 per ton on waste disposed at county landfills -- as authorized by the California Integrated Waste Management Act -- was imposed by the Authority to fund this program. The fee was adjusted to $2.15 per ton in 2000. The Alameda County Environmental Health Department is responsible for program implementation. This countywide program is identified and relied upon in each Alameda County jurisdiction's HHWE.

The program includes the operation of three permanent HHW collection facilities located in the northern, southern, and eastern sections of the county; and countywide public education and information to increase awareness of HHW, the advantages of safe disposal practices, and safer substitutes to toxic household products.

Two facilities have been in operation since September, 1993; one in Livermore and one in Hayward. The third facility in Oakland began operation in 1996.

The Alameda County Household Hazardous Waste Program has presented program status reports to the Authority since the program's implementation, and its activities are currently under the purview of the Authority's Programs Committee. Status reports are received by all jurisdictions in the county via the Authority.

Program Implementation

The facilities accept household hazardous wastes on a "drop-off" basis on certain days, and also by appointment. The program is continually publicized through a permanent phone number listed in phone books countywide, through the Authority's countywide Recycling Hotline, and on the website maintained by the Authority at household-hazwaste.org. During FY 2001-02 public outreach efforts included direct mail, radio advertisements, and print advertisements in BART stations. In addition, public education for hazardous waste minimization is provided at each facility and general program information is distributed at various events and schools through the year.

Materials Accepted

The HHW facilities accept all hazardous wastes generated by households, such as:

- oil-based paints
- staining compounds
- varnishes
- thinners
- latex paints
- anti-freeze
- motor oil
- automobile batteries
- railroad ties
- asbestos

The HHW facilities also accept similar wastes from Conditionally Exempt Small Quantity Generators [CESQGs]), with the following *exceptions*:

- Explosives
- Radioactive Wastes (including smoke detectors)
- Medical Wastes
- Compressed gas cylinders in excess of 50 pounds

Materials Recycled

Approximately 85% of all materials received at the HHW facilities are recycled. Lead-acid batteries, motor oil, latex paint, oil-based paint and antifreeze comprise the majority of those materials collected from the program that are sent to reprocessors, remanufacturers, and refiners where they are recycled.

Responsible Agencies

With policy direction provided by the Waste Management Authority, the three facilities are operated by the Alameda County Environmental Health Department. The facilities are monitored by appropriate local agencies such as the local fire departments, by the County Environmental Health Department, and by the Cal EPA Department of Toxic Substances Control. Finally, the Environmental Health Department tracks materials received by material type and city of origin and provides this information to the Authority and local jurisdictions for evaluation purposes.

Load Checking Programs

Load checking at a solid waste management facility is a process by which selected incoming loads of solid wastes are checked for the presence of HHW in order to prevent the disposal of HHW in solid waste landfills. Title 23 of the California Code of Regulations require all solid waste management facilities to have a load checking program. Load checking currently occurs at all transfer stations and landfills in Alameda County and is performed by facility operators. Workers are trained to detect and remove HHW and other hazardous wastes from the waste stream. The landfill operators use load checking not only to

retrieve inappropriately disposed of wastes, but also to identify the origin and notify the generator of proper disposal procedures for HHW. The HHW collected through load checking is handled by either recycling or disposal in a hazardous waste facility.

Alameda County Jurisdictions' Implementation Schedules for Household Hazardous Waste Public Information and Education Programs

In each Alameda County jurisdiction HHWE Public Information and Education program efforts are identified through the year 2000. Some jurisdictions have included tables illustrating this implementation, but the tables only portray through the year 1995. The text should supersede the tables where given, and it should be noted that "on-going" public information efforts include :

1) the provision of the phone number(s) to obtain program information in telephone directories countywide, as well as

2) outreach efforts by each jurisdiction as described in its HHWE at least twice a year through the year 2000.

TABLE 7-2

COMPARISON OF WASTE REDUCTION ALTERNATIVES

Waste Reduction Method	Advantages	Potential Disadvantages
Source Reduction	• Top of hierarchy • Reduces environmental emissions • Encourages long-term behavior change • Allows broad public participation • Less expensive • Stretches natural resources • Not capital-intensive	• Difficult to quantify • Difficult to monitor • Requires behavior change • Potential unanticipated effects on recycling programs
Recycling	• Conservation of natural resources • Less water and energy used as opposed to virgin materials • Less emissions • More processes economically feasible as avoided costs increase	• Some materials experience quality degradation with repeated use • Recycling has potential localized environmental impacts • Siting difficulties • Market development needed
Composting	• High waste diversion potential • Beneficial land applications • Conservation of topsoil • Water conservation • Demonstrated markets	• High facility costs • Siting difficulties • Potential vector concerns • Potential odor problems • Quality control required • Contamination potential
Transformation	• Alternative market for homogeneous materials, e.g. wood chips	• Air emissions • Ash must be disposed • Potential health risks

Program Criteria

The countywide programs and facilities described here and included in the Source Reduction and Recycling Plan will achieve maximum feasible waste diversion based upon the priorities of the integrated waste management hierarchy: source reduction and reuse, recycling and composting, environmentally safe transformation and disposal.

Criteria used for the selection and design of countywide programs include cost-effectiveness and estimated diversion potential. Other factors include: state regulations; the volume and weight of targeted materials; potential hazards associated with these materials; the presence of nonrenewable resources in materials, products, or packaging; and the recyclability of materials.

Given the very large percentage of Alameda County's disposal waste stream that is generated by the commercial and industrial sector (an estimated 74%), successful waste reduction efforts among local businesses are crucial to meeting Alameda County's waste diversion goals. Therefore, proposed countywide programs, especially in the short-term, emphasize activities which will increase material diversion from the commercial/industrial/institutional sector.

As indicated, Alameda County has a diversion strategy which includes source reduction, recycling, and composting. Each option has advantages and disadvantages under different circumstances. For example, source reduction may be preferred where cost constraints are high or where markets are not available for recyclable materials. Recycling may be preferred where markets are available, where a large proportion of the waste stream must be diverted, and where it is necessary to demonstrate program effectiveness. Table 7-2 outlines such characteristics for each of the categories of proposed programs.

Selected programs are not necessarily limited to those described in this section and include those contained in the Source Reduction and Recycling Plan.

Program Monitoring, Reporting, Evaluation and Maintenance

The Agency will use a multi-dimensional assessment of the state of the County's recycling, waste reduction and general sustainability. In addition to measuring progress by looking at the diversion rate as determined by the state diversion methodology, the Agency will also look at factors such as annual waste disposed per capita, capture rates in municipal programs, annual tons disposed, ADC used from year to year and annual electricity, natural gas and water use. In addition to systemwide measurement, the Agency will measure its own progress according to specific programmatic measurements. As part of the annual budget, the Agency will report on progress towards the Agency's goals and objectives as contained in the Agency's strategic plan, the Source

Reduction and Recycling Plan. The Agency will use the annual budget process to adjust goals and strategies as necessary to meet changing conditions.

Countywide Environmentally Safe Transformation

Waste transformation generally refers to a process where unsorted or partly-sorted waste is converted into fuel to generate energy, usually by burning. Although lower than source reduction and recycling in the hierarchy of waste management options, certain forms of waste transformation may be useful in reducing some wastestreams, and can provide the added benefit of energy production.

Transformation of unsorted municipal solid waste is presently not feasible in Alameda County. In addition to very high capital costs and economic risks, the public is concerned with the quality of air emissions from such plants, potential difficulties in disposing ash residues, and the potential reduction of materials that could be recycled. Although future technological improvements and design may mitigate these factors, no "mass burn" plants are proposed in this plan.

Transformation can be made more acceptable by using homogenous materials, which provides better control over materials, cleaner ash/residue, consistent BTU value, and known/constant emissions. Homogenous materials can include certain agricultural residue such as orchard prunings, almond hulls, peach pits, walnut hulls, and wood chips.

Wood chips are considered homogenous although they may contain non-wood materials such as paints, preservatives, and glues. While it may be preferable to turn woodwaste into compost or mulch, the current market for those products is not as well established as for energy production. Furthermore, materials that are used to make wood chips for fuel usually contain treated wood that cannot be turned into soil amendment products due to potential contamination problems.

Currently there are no transformation facilities in the county. It is unlikely that any such facility will exist in the future due to stringent air quality standards here. Further, the County Recycling Initiative Measure D prohibits incineration in unincorporated Alameda County. There are, however, some processing facilities in Alameda County that produce wood chips for fuel. The wood chips are transported to wood-fired power plants outside the County (which are mostly located in the Central Valley).

Short- and Medium-Term Planning Periods

The Authority will continue to support those facilities that produce fuel, such as wood chips, for transformation elsewhere.

COUNTYWIDE DISPOSAL CAPACITY PROGRAM

Landfill Disposal Needs

As presented in Section 3, Alameda County has sufficient fully-permitted landfill refuse capacity, space for 67 million tons in 2001, to meet the County's projected needs beyond 2050. This assumes that the County will make progress toward the Measure D goal of 75 percent waste diversion and that there is no unanticipated increase in waste disposed due to out-of-county import. If these assumptions are correct, the County's existing capacity is sufficient to meet the State's 15 year (2002-2017) capacity requirement.

This Plan was amended in 2000 to identify an expanded facility at the Altamont Landfill. Thus as of 2000, Alameda County has more than 50 years of landfill capacity identified in the Integrated Waste Management Plan.

Authority Integrated Waste Management Facility [IWMF]

The County's strategy for meeting its capacity needs includes the proposed publicly-owned Integrated Waste Management Facility in the Altamont Hills. In 1985, to mitigate the impacts of allowing importation of San Francisco wastes, the Alameda County Solid Waste Management Plan was amended to add the following policy on use of import mitigation fees:

> "The initial priority for mitigation shall be to acquire, in public ownership, reserve landfill capacity sufficient to serve the needs of all Alameda County jurisdictions for a minimum fifty year continuous period."

The CoIWMP changes this policy to a 15 year period. However, the concept is expanded to include non-disposal operations that are compatible with landfills, such as compost, co-compost, materials recovery, and other beneficial public and/or private projects.

The Authority's program calls for acquisition of *reserve* landfill capacity. There is no commitment to actually develop a landfill, which would be contingent on other factors including the possible development of new privately-owned landfill capacity. In 1993, the County of Alameda determined that the acquisition of property for the Integrated Waste Management Facility is not inconsistent with the Alameda County General Plan. However, development of a landfill would require a General Plan Amendment. Other proposed facilities at the site, such

as co-composting, may not require a General Plan Amendment but would require a Conditional Use Permit.

The Authority IWMF site is located in the North Flynn Road area of the Altamont Hills identified on Figure 7-C. General characteristics of the IWMF reserve landfill capacity are as follows:

Lifespan:	50 years
Capacity:	98.4 million cubic yards
Approximate Area:	3,000 acres including undeveloped buffer
Land Use:	Non-irrigated grazing land, commercial wind energy production
Nearby Land Uses:	Same as above

The potential wasteshed for the facility includes Alameda County jurisdictions that determine to participate.

Any specific proposed landfill development would be subject to the siting criteria established in this plan as well as further engineering and environmental reviews. The Authority is implementing the publicly-owned facility program. Activities undertaken to date include:

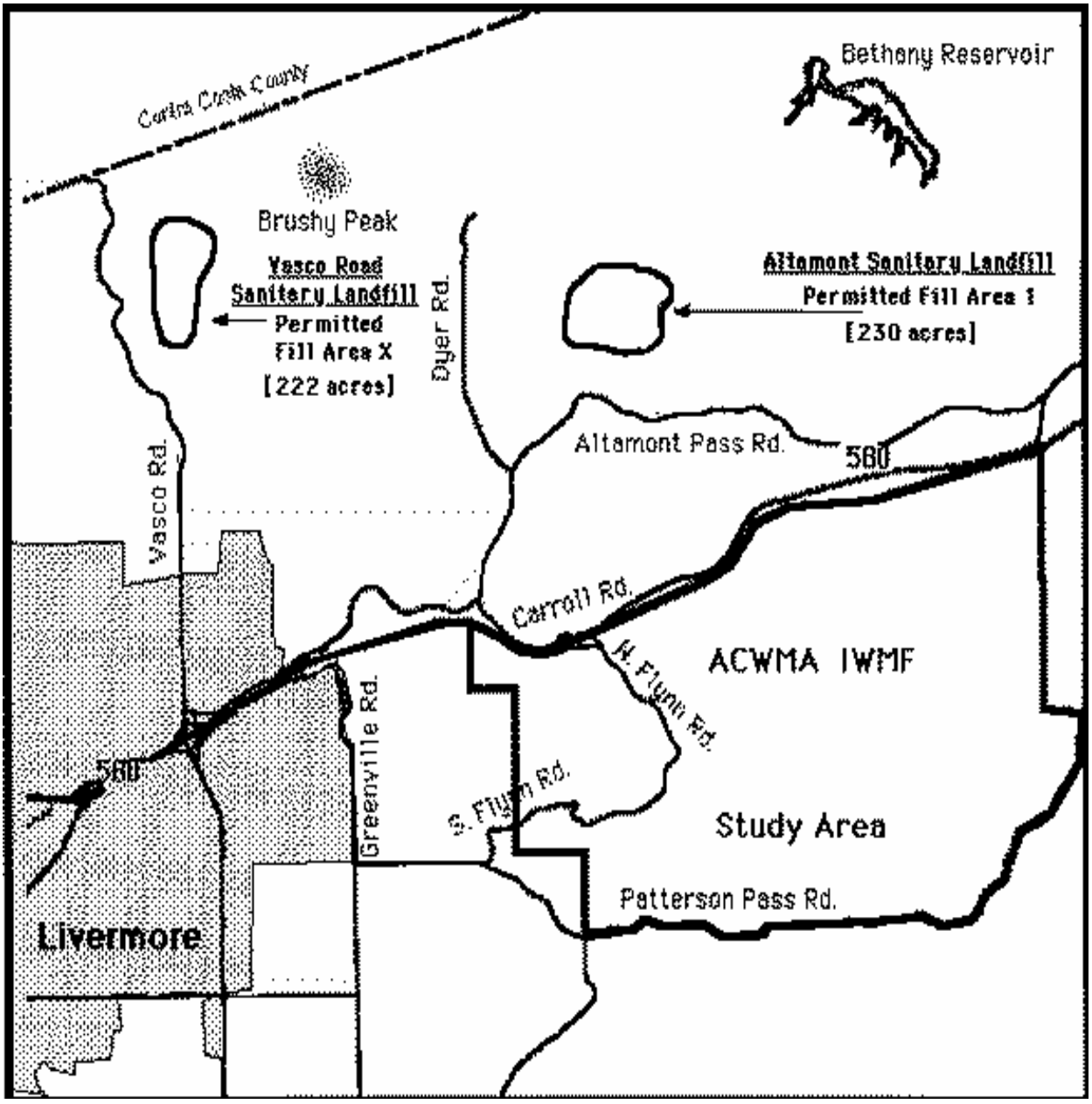
- Program Outline, 1988
- Program EIR, Altamont Hills Landfill Program, 1989
- Survey of site study area properties, 1989-1990
- Technical steps necessary to complete acquisition process (ongoing)
- Amend JPA to provide Authority with power of eminent domain, 1992
- Acquisition of 1,633 acres, 1993-94
- Integrated Waste Management Facility Conceptual Plan and EIR, 1994
- Selection of Operator for co-compost facility and completion of co-compost facility design, 1995

The Authority is taking no action to implement a landfill or compost facility on Authority owned land at this time.

Figure 7 - C

Disposal Sites in East Alameda County

LOCATION MAP



Expansion of Existing Privately-Owned Landfills

Private industry has proposed landfill expansions that, in the future, may be considered by the Authority and other responsible public agencies. At present, such expansions, with the exception of the Altamont landfill expansion of 40 million additional tons approved in March, 2000 are not proposed within or by this CoIWMP and are not identified in this CoIWMP.

Private landfill expansion capacity would not be required to meet the County's long-term (beyond 15 years) needs.

Altamont Sanitary Landfill

In March, 2000, Altamont's capacity was expanded by 40 million tons.

Vasco Road Sanitary Landfill

Browning-Ferris Industries (BFI) had proposed to expand the Vasco Road landfill by establishing a new Class II fill, identified as "Site Y", adjacent to the existing permitted Class III fill area. Site Y would have added 12 million cubic yards of capacity. By itself, this expansion would have been nearly enough for the County to meet the State's 15 year countywide capacity requirement.

In late-1994, BFI dropped the proposed Site Y expansion and halted environmental reviews. The company advises that it may submit a new proposal in the future.

Disposal Facility Program Overview

Figure 7-D shows the status and implementation schedule of each existing and proposed landfill and transfer station in Alameda County.

Figure 7 - D

FACILITIES STATUS AND IMPLEMENTATION SCHEDULE

FACILITY	1990	1995	2000	2010 ···➔2045
DAVIS STREET TRANSFER STATION	Continue Operation - Haul to Altamont (1)			
BERKELEY TRANSFER STATION	Continue Operation - Haul to Vasco Rd. (2)			
PLEASANTON TRANSFER STATION	Continue Operation - Haul to Vasco Rd (3)			
TRI-CITIES (DURHAM RD) LANDFILL	2004 Estimated Closure (4) w/ required waste reduction (May continue operation as MRF/Transfer Station)			
ALTAMONT LANDFILL	2071 Estimated Closure (5) w/ required waste reduction			
VASCO RD. LANDFILL	2037 Estimated Closure (6) w/ Ctd. Out-of-County Soils/C&D Import & required waste reduction			

(1) Pursuant to ACSWMA Resolutions No. 9 September 7, 1978, No. 206 June 24, 1992 and No. 98-19.
(2) Pursuant to ACSWMA Resolution No. 46 March 24, 1982 and ACWMA Res. No. 269 November 17, 1993.
(3) Pursuant to ACWMA Resolution No. 210 July 22, 1992.
(4) Pursuant to ACSWMA Resolution No. 52 May 26, 1982; and ACWMA Res. No. 263 October 27, 1993.
(5) Pursuant to ACSWMA Resolution No. 40 February 24, 1982; Res. No. 78 December 18, 1985; Res. No. 33 July 19,1989; Res. No.179 December 18, 1991; Res. No. 276 December 15, 1993; Res. No. 94-45 August 24, 1994; Res. No. 95-26 May 24, 1995; and Res. No. 2000-10
(6) Pursuant to ACSWMA Resolution No. 65 May 23,1984, Res. No. 80 January 22, 1986; Res.No. 87 June 4,1986; and ACWMA Res. No. 275 December 15, 1993, Res. No. 94-58 November 16, 1994, Res. No. 95-16 March 22, 1995.
(7) Pursuant to ACWMA Resolution #96-17 July 24, 1996.

Landfill Gas Recovery Program

Landfill gas is a combination of methane, carbon dioxide, and other organic gases that are produced by the anaerobic decomposition process of organic wastes. This process occurs after available oxygen has been depleted in sanitary landfills.

Landfill gas emissions are controlled by means of impermeable soil covers and by the installation of a gas collection system. Without a control system constructed to manage the movement of gas, landfill gas will either escape into the atmosphere or migrate laterally in the surrounding soil. Methane gas in particular is of major concern because it is toxic, and under certain conditions is explosive.

Collected gas can be managed through open flame flares or by collection through an extraction system. Using the latter method, the gas can be used as boiler fuel, to fuel a turbine or an internal combustion engine for the generation of electricity, or used in a utility distribution system off-site.

It is Alameda County's policy to encourage landfill gas recovery programs that minimize potential air and other environmental and health hazards. The Authority encourages an extraction system that utilizes the recovered gas for energy, where appropriate.

COUNTYWIDE DIVERSION PROGRAM & FACILITY COSTS

Waste Diversion Program Costs

Cost estimates for future diversion programs are presented as ranges in the attached table.

TABLE 7 – 3

		FY03	FY04	FY04	FY05	FY05	FY06	FY06	FY07	FY07	FY08	FY08	FY09	FY09	FY10	FY10
BUSINESS		Budget	low	high	low	high	low	high	low	high	low	high	low	high	low	high
0009	C & D Diversion Program	$77,900	$77,900	$80,237	$77,900	$82,644	$77,900	$85,123	$77,900	$87,677	$77,900	$90,307	$77,900	$93,017	$77,900	$95,807
0010*	Market Development Assistance	$180,300	$180,300	$185,709	$180,300	$191,280	$180,300	$197,019	$180,300	$202,929	$180,300	$209,017	$180,300	$215,288	$180,300	$221,746
0126	Incentives Fund	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
7013	StopWa$te Partnership	$545,000	$545,000	$561,350	$545,000	$578,191	$545,000	$595,536	$545,000	$613,402	$545,000	$631,804	$545,000	$650,759	$545,000	$670,281
7025	Green Business Program	$24,250	$24,250	$24,978	$24,250	$25,727	$24,250	$26,499	$24,250	$27,294	$24,250	$28,112	$24,250	$28,956	$24,250	$29,824
7050*	Grants to Non-Profits	$705,250	$705,250	$726,408	$705,250	$748,200	$705,250	$770,646	$705,250	$793,765	$705,250	$817,578	$705,250	$842,105	$705,250	$867,369
7052	Mini-Grants	$50,000	$50,000	$50,000	$50,000	$50,000	$50,000	$50,000	$50,000	$50,000	$50,000	$50,000	$50,000	$50,000	$50,000	$50,000
7055	Green Building-Member Agencies	$572,500	$572,500	$589,675	$572,500	$607,365	$572,500	$625,586	$572,500	$644,354	$572,500	$663,684	$572,500	$683,595	$572,500	$704,103
7057	Revolving Loan Fund Administration	$107,750	$107,750	$110,983	$107,750	$114,312	$107,750	$117,741	$107,750	$121,274	$107,750	$124,912	$107,750	$128,659	$107,750	$132,519
9005	MRF Capacity Expansion	$20,500	$20,500	$21,115	$5,000	$5,000	$5,000	$5,150	$5,000	$5,305	$5,000	$5,464	$5,000	$5,628	$5,000	$5,796
9007	Green Building Guidelines-Residential	$245,500	$245,500	$252,865	$245,500	$260,451	$245,500	$268,264	$245,500	$276,312	$245,500	$284,602	$245,500	$293,140	$245,500	$301,934
9999*	Revolving Loan Fund - Pool	$500,000	$500,000	$500,000	$500,000	$500,000	$500,000	$500,000	$500,000	$500,000	$500,000	$500,000	$500,000	$500,000	$500,000	$500,000
	Sub-Total	*$3,028,950*	*$3,028,950*	*$3,103,319*	*$3,013,450*	*$3,163,170*	*$3,013,450*	*$3,241,565*	*$3,013,450*	*$3,322,312*	*$3,013,450*	*$3,405,481*	*$3,013,450*	*$3,491,145*	*$3,013,450*	*$3,579,380*
ORGANICS																
0005	Organics Technical Assistance	$376,550	$376,550	$387,847	$376,550	$399,482	$376,550	$411,466	$376,550	$423,810	$376,550	$436,525	$376,550	$449,620	$376,550	$463,109
0119	On-Site Composting/Mulching in Non-Res. Sector	$170,000	$170,000	$175,100	$170,000	$180,353	$170,000	$185,764	$170,000	$191,336	$170,000	$197,077	$170,000	$202,989	$170,000	$209,079
0120	Residential Grasscycling	$140,500	$140,500	$144,715	$140,500	$149,056	$140,500	$153,528	$140,500	$158,134	$140,500	$162,878	$140,500	$167,764	$140,500	$172,797
7019	Organics Processing Development	$384,500	$384,500	$396,035	$100,000	$100,000	$100,000	$103,000	$100,000	$106,090	$100,000	$109,273	$100,000	$112,551	$100,000	$115,927
7038	Master Composter Program	$36,500	$36,500	$37,595	$36,500	$38,723	$36,500	$39,885	$36,500	$41,081	$36,500	$42,314	$36,500	$43,583	$36,500	$44,890
8032	Home Compost Education & Outreach	$68,020	$68,020	$70,061	$68,020	$72,162	$68,020	$74,327	$68,020	$76,557	$68,020	$78,854	$68,020	$81,219	$68,020	$83,656
9010	Compost & Worm Bin Distribution	$425,000	$425,000	$437,750	$425,000	$450,883	$425,000	$464,409	$425,000	$478,341	$425,000	$492,691	$425,000	$507,472	$425,000	$522,696
9012	Waste Reduction Outreach Landscape & Turf Professionals	$106,000	$106,000	$109,180	$106,000	$112,455	$106,000	$115,829	$106,000	$119,304	$106,000	$122,883	$106,000	$126,570	$106,000	$130,367
	Sub-Total	*$1,707,070*	*$1,707,070*	*$1,758,282*	*$1,422,570*	*$1,503,115*	*$1,422,570*	*$1,548,208*	*$1,422,570*	*$1,594,654*	*$1,422,570*	*$1,642,494*	*$1,422,570*	*$1,691,769*	*$1,422,570*	*$1,742,522*
P & R	(Planning & Research)															
0001	Disaster Debris Management Plan - Implementation	$48,000	$48,000	$49,440	$48,000	$50,923	$48,000	$52,451	$48,000	$54,024	$48,000	$55,645	$48,000	$57,315	$48,000	$59,034
0013	ColWWP Amendments	$22,000	$22,000	$22,660	$22,000	$23,340	$22,000	$24,040	$22,000	$24,761	$22,000	$25,504	$22,000	$26,269	$22,000	$27,057
0014	Countywide Hazardous Waste MOU	$15,000	$15,000	$15,450	$15,000	$15,914	$15,000	$16,391	$15,000	$16,883	$15,000	$17,389	$15,000	$17,911	$15,000	$18,448
0015	Altamont Hills Property Acquisition/Litigation	$10,000	$10,000	$10,300	$10,000	$10,609	$10,000	$10,927	$10,000	$11,255	$10,000	$11,593	$10,000	$11,941	$10,000	$12,299
0018	Waste Production Measurement	$50,000	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
0125		$32,000	$32,000	$32,960	$32,000	$33,949	$32,000	$34,967	$32,000	$36,016	$32,000	$37,097	$32,000	$38,210	$32,000	$39,356
0201	RB Five Year Audit	$31,000	$0	$0	$0	$0	$0	$0	$225,000	$250,000						
0202	ColWMP Five Year Revision	$42,000	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
7017	Disposal/Diversion Reporting System	$53,000	$53,000	$54,590	$53,000	$56,228	$53,000	$57,915	$53,000	$59,652	$53,000	$61,442	$53,000	$63,285	$53,000	$65,183
7030	Countywide Hazardous Waste Management Plan	$47,000	$25,000	$25,000	$25,000	$25,750	$25,000	$26,523	$25,000	$27,318	$25,000	$28,138	$25,000	$28,982	$25,000	$29,851
7033	Legislation	$20,000	$20,000	$20,000	$20,000	$20,000	$20,000	$20,000	$20,000	$20,000	$20,000	$20,000	$20,000	$20,000	$20,000	$20,000
7067	Transportation Improvement Program	$1,100	$1,100	$1,133	$1,100	$1,167	$1,100	$1,202	$1,100	$1,238	$1,100	$1,275	$1,100	$1,313	$1,100	$1,353
7092	Property Management	$93,000	$53,000	$55,790	$13,000	$57,464	$13,000	$59,188	$13,000	$60,963	$13,000	$62,792	$13,000	$64,676	$13,000	$66,616
8021	Recycling/Solid Waste Rates & Services Database	$2,500	$2,500	$2,575	$2,500	$2,652	$2,500	$2,732	$2,500	$2,814	$2,500	$2,898	$2,500	$2,985	$2,500	$3,075
	Waste Characterization Study				$500,000	$550,000										
9017	Recycling Plan Update	$71,500	$0	$0	$0	$0	$0	$0	$75,000	$75,000	$0	$0	$0	$0	$0	$0
	Sub-Total	*$538,100*	*$281,600*	*$289,898*	*$741,600*	*$847,995*	*$241,600*	*$306,335*	*$541,600*	*$639,925*	*$241,600*	*$323,773*	*$241,600*	*$332,886*	*$241,600*	*$342,272*

TABLE 7 – 3 (continued)

PES (Public Education Services)	FY03 Budget	FY04 low	FY04 high	FY05 low	FY05 high	FY06 low	FY06 high	FY07 low	FY07 high	FY08 low	FY08 high	FY09 low	FY09 high	FY10 low	FY10 high
0012 Building Industry Outreach	$24,000	$24,000	$24,720	$24,000	$25,462	$24,000	$26,225	$24,000	$27,012	$24,000	$27,823	$24,000	$28,657	$24,000	$29,517
0121 School Infrastructure	$202,500	$202,500	$208,575	$202,500	$214,832	$202,500	$221,277	$202,500	$227,916	$202,500	$234,753	$202,500	$241,796	$202,500	$249,049
0123 Multi Family Unit Assistance	$191,000	$191,000	$196,730	$191,000	$202,632	$191,000	$208,711	$191,000	$214,972	$191,000	$221,421	$191,000	$228,064	$191,000	$234,906
7001 Agency Seminar	$7,500	$7,500	$7,725	$7,500	$7,957	$7,500	$8,195	$7,500	$8,441	$7,500	$8,695	$7,500	$8,955	$7,500	$9,224
8003 Multimedia Support - Member and Regional Agencies	$230,500	$230,500	$237,415	$230,500	$244,537	$230,500	$251,874	$230,500	$259,430	$230,500	$267,213	$230,500	$275,229	$230,500	$283,486
8028 Educational Partnerships	$909,795	$909,795	$937,089	$909,795	$965,202	$909,795	$994,158	$909,795	$1,023,982	$909,795	$1,054,702	$909,795	$1,086,343	$909,795	$1,118,933
8031 School Education and Outreach	$45,000	$45,000	$46,350	$45,000	$47,741	$45,000	$49,173	$45,000	$50,648	$45,000	$52,167	$45,000	$53,732	$45,000	$55,344
8034 Media Relations – General Information	$27,000	$27,000	$27,810	$27,000	$28,644	$27,000	$29,504	$27,000	$30,389	$27,000	$31,300	$27,000	$32,239	$27,000	$33,207
9014 Promotional Marketing Household Hazardous Waste	$160,000	$160,000	$164,800	$160,000	$169,744	$160,000	$174,836	$160,000	$180,081	$160,000	$185,484	$160,000	$191,048	$160,000	$196,780
9016 Multimedia Support - Agency	$607,000	$607,000	$625,210	$607,000	$643,966	$607,000	$663,285	$607,000	$683,184	$607,000	$703,679	$607,000	$724,790	$607,000	$746,533
9029 Recycling Information Services	$177,000	$177,000	$182,310	$177,000	$187,779	$177,000	$193,413	$177,000	$199,215	$177,000	$205,192	$177,000	$211,347	$177,000	$217,688
Sub-Total	*$2,581,295*	*$2,581,295*	*$2,658,734*	*$2,581,295*	*$2,738,496*	*$2,581,295*	*$2,820,651*	*$2,581,295*	*$2,905,270*	*$2,581,295*	*$2,992,428*	*$2,581,295*	*$3,082,201*	*$2,581,295*	*$3,174,667*
NON-PROJECT															
7064 Technical Advisory Committee	$2,000	$2,000	$2,060	$2,000	$2,122	$2,000	$2,185	$2,000	$2,251	$2,000	$2,319	$2,000	$2,388	$2,000	$2,460
7093 Accounting - Mitigation Fund	$2,500	$2,500	$2,575	$2,500	$2,652	$2,500	$2,732	$2,500	$2,814	$2,500	$2,898	$2,500	$2,985	$2,500	$3,075
7197 WMA Administration	$103,000	$103,000	$106,090	$103,000	$109,273	$103,000	$112,551	$103,000	$115,927	$103,000	$119,405	$103,000	$122,987	$103,000	$126,677
7198 RB Administration	$82,000	$82,000	$84,460	$82,000	$86,994	$82,000	$89,604	$82,000	$92,292	$82,000	$95,060	$82,000	$97,912	$82,000	$100,850
Sub-Total	*$189,500*	*$189,500*	*$195,185*	*$189,500*	*$201,041*	*$189,500*	*$207,072*	*$189,500*	*$213,284*	*$189,500*	*$219,682*	*$189,500*	*$226,273*	*$189,500*	*$233,061*
Member Agencies															
7042* Mitigation Fund Disbursement to Municipalities	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000
8015* Unincorporated County per Capita Equivalent Measure D Funding	$70,000	$70,000	$70,000	$70,000	$70,000	$70,000	$70,000	$70,000	$70,000	$70,000	$70,000	$70,000	$70,000	$70,000	$70,000
	$1,070,000	*$1,070,000*	*$1,070,000*	*$1,070,000*	*$1,070,000*	*$1,070,000*	*$1,070,000*	*$1,070,000*	*$1,070,000*	*$1,070,000*	*$1,070,000*	*$1,070,000*	*$1,070,000*	*$1,070,000*	*$1,070,000*
TOTAL RANGES FOR PROJECTS	$9,114,915	$8,858,415	$9,075,417	$9,018,415	$9,523,815	$8,518,415	$9,193,830	$8,818,415	$9,745,445	$8,518,415	$9,653,858	$8,518,415	$9,894,274	$8,518,415	$10,141,902
REVENUE PROJECTIONS RANGES		$7,003,475	$8,204,263	$6,353,739	$8,002,251	$5,935,914	$8,057,584	$5,589,175	$8,212,484	$5,469,047	$8,624,498	$5,363,733	$9,081,169	$5,335,983	$10,663,061
MEASURE D DIRECT PROJECTS															
7090 Mandated Allocation of Funds to Municipalities (50%)		$3,970,931	$4,749,583	$3,949,513	$5,040,454	$3,935,618	$5,367,105	$3,912,637	$5,727,313	$4,056,274	$6,266,034	$4,201,898	$6,850,901	$4,327,720	$6,538,208
7034 GSA Liaison & 9001 - Recycling Product Central		$394,434	$472,299	$392,185	$501,280	$390,685	$533,834	$389,372	$569,740	$402,516	$623,492	$416,954	$681,854	$429,407	$650,456
FIXED COST		$4,044,195	$4,044,195	$4,208,813	$4,208,813	$4,390,150	$4,390,150	$4,576,780	$4,576,780	$4,772,729	$4,772,729	$4,974,225	$4,974,225	$5,183,004	$5,183,004
TOTAL (Fixed Costs Plus Project Costs)		$17,267,975	$18,341,494	$17,568,926	$19,274,362	$17,234,868	$19,484,919	$17,697,204	$20,619,278	$17,749,934	$21,316,113	$18,111,492	$22,401,254	$18,458,546	$22,513,570

FUNDING MECHANISMS

AB 939 Funding Provisions

AB 939 legislation allows jurisdictions to collect funds to finance programs. Specifically § 41901 permits cities, counties or city and counties to impose fees in amounts sufficient to pay the costs of preparing, adopting and implementing an integrated waste management plan prepared pursuant to AB 939. These fees may cover the actual costs incurred by the city or county in preparing, adopting and implementing the plan, as well as in setting and collecting the local fees.

ACWMA Joint Powers Agreement [JPA] Funding Provisions

The JPA that created the Authority includes special provisions which transfer some of the AB 939 powers to the Authority. The JPA states that the jurisdictions in the County understand and agree that the Authority or the agencies may levy fees as authorized by Public Resources Code sections §41901 and §41902 for the purpose of preparing and adopting the CoIWMP and the programs and facilities identified in the document. The Authority may levy AB 939 fees on all wastes disposed in the county for purposes of funding local or countywide solid waste planning and implementation activities. Pursuant to the JPA, individual jurisdictions may only levy AB 939 fees on wastes generated in their jurisdiction.

The JPA also grants the Authority the power to levy a fee authorized by Government Code §66784.3 to defray the cost of preparing, maintaining and administering the Alameda County Solid Waste Management Plan until the CoIWMP is adopted.

The JPA also includes special provisions for Hazardous Waste Facility Users fees and Hazardous Waste Management Administrative fees. The Facility Users fee may be imposed and enforced by the Authority to the extent necessary for programs undertaken by the Authority which complement the hazardous waste plans and programs of the Agencies. The Administrative fee includes advanced disposal fees or plan check fees; the Authority may share in these fees if it incurs costs related to programs for which such fees are levied.

Funding Policy

Policy decisions regarding the recovery of program costs will generally take place at the local level. When this discussion relates to the implementation of countywide programs, the Authority will participate as needed.

The pool of revenue sources which may be used to develop and operate local and sub-regional programs and facilities include:

1) General funds
2) Mitigation fee funds including certain IWMF facility lease revenues
3) User fees
4) Refuse surcharges
5) Franchise fees
6) Residential Recycling curbside and yard waste program fees
7) Commercial Recycling fees
8) Measure D standard landfill tip fee funds

Countywide source reduction and material diversion programs will be funded primarily through the use of operator's facilities fees levied by the Authority in Alameda County pursuant to the Authority's AB 939 powers, and waste import mitigation fees.

Revenue Sources for Countywide Programs and Facilities

ACWMA Current Fees

The Authority currently funds the planning and implementation costs for the programs presented in Table D. These funds are derived from four revenue sources: Facility Fee, Mitigation Fee, Assessment Fund and Household Hazardous Waste fee.

Facility Fee

The Authority has placed a $1.50 per ton "AB 939" fee on wastes disposed at the three landfills in Alameda County. The fee is received monthly from Waste Management of Alameda County for the Altamont and Tri-Cities landfills, and from B.F.I for Vasco Road landfill.

Mitigation Fee

The Authority collects a fee on each ton of waste imported from out-of-county, including wastes from San Francisco and other specified origins. The fee is received monthly and is adjusted each year based on several indices of inflation. The fee is currently $4.68 per ton for most San Francisco wastes, with a standardized fee of $4.53 per ton on wastes from other sources. These funds may only be used to mitigate the impact of imported waste. The Mitigation Fee account also includes lease revenues from the Authority IWMF property. These consist primarily of windrights, grazing and house rentals.

Household Hazardous Waste

The Authority authorized an "AB 939" per ton fee to be used by the County Environmental Health Department. The original fee was based on an estimate of funds needed to provide Household Hazardous Waste disposal facilities. The current fee is $2.15 per ton of disposed wastes. Funds from these fees go directly to the Alameda County Department of Environmental Health to develop and operate the county household hazardous waste collection and management program.

Recycling Board Current Fees

Measure D Fee

This initiative, approved by Alameda County voters in November, 1990, imposes a $6.95 per ton disposal charge at the Altamont and Vasco landfills located in unincorpo-rated Alameda County. It survived a legal challenge and became permanently effective August 11, 1993. Pursuant to Measure D, a County Recycling Board is charged with administering the funds derived from these fees per the mandates in the initiative. As some of these mandated waste reduction programs overlap with those programs the Authority is already doing, some joint funding of programs will occur to make use of these public funds in the most efficient and effective manner possible.

The Authority also generates revenue from interest on its fund balances and reserves. In addition, the Authority owns 1,600 acres of land in the Altamont Hills as reserve landfill capacity, and this property provides residential rent, wind and communications towers revenue.

Contingency Funding

The funding sources identified above will be used to finance the costs associated with the solid waste programs. Should these revenues be insufficient to meet costs, there are several actions that the Agency could undertake in order to ensure adequate revenue for the activities in this plan, including:

- Implementing additional internal cost control and greater efficiencies.
- Maximizing revenue from existing investments.

- Considering changes to the operations of the Agency to decrease fixed costs.
- Metering out project activities and coordinating internally to flatten out spikes in expenditures.
- Examining the use of consultants versus in-house positions.
- Shifting certain projects to maintenance mode versus active expansionist mode.
- Considering changes to the Recycling Board's distributions in order to provide more flexibility and adjust to the priorities in this plan.
- Considering fee increases.

The ACWMA may also consider alternative sources of funding including borrowing and private financing. The JPA gives the Authority the power to incur debts and liabilities, to levy and collect fees and charges and to issue bonds. These funding sources are also available to member jurisdictions.

APPENDIX A

COUNTYWIDE DESCRIPTION

GENERAL

Alameda County is located on the east side of San Francisco Bay. Composed of 14 cities, the County encompasses approximately 737.5 square miles of land and 83.67 square miles of bay. While the majority of the County's land area (~ 444 square miles) is unincorporated area, the majority of the population resides in the incorporated city areas. The County is approximately thirty-two miles in length in a north-south direction and 45 miles in width in an east-west direction. Elevations range from sea level to 3,817 feet in the Diablo Range south of Livermore.

In addition to the 14 cities, two sanitary districts exist in Alameda County. The Castro Valley Sanitary District serves approximately 5.5 square miles of unincorporated area. The district is bounded by unincorporated Alameda County to the north and east, City of Hayward to the south, and Oro Loma Sanitary District to the southwest and west.

The Oro Loma Sanitary District serves approximately 16.3 square miles of unincorporated area and incorporated area which include portions of the City of San Leandro and the City of Hayward.

Unincorporated area outside of city and sanitary district boundaries include Castlewood, Sunol, Kilkare, and numerous urban areas adjacent to city limits. This area is generally characterized by an open, rural landscape.

Alameda County has a varied geography and a diverse combination of land types and forms including salt water marshes along the bay to moderately high uplands. The County is bounded on the north by Contra Costa County, on the south by Santa Clara County, on the east by San Joaquin County and on the west by the San Francisco Bay.

CLIMATE

The climate of Alameda County is of two main types, oceanic and subhumid mesothermal. The oceanic type is characterized by cool, moist winters and cool summers with frequent sea breezes and early morning fog. The subhumid mesothermal type is characterized by cool, moist winters and hot dry summers. The boundary between the two types runs roughly in a southeast-northwest direction from the Calaveras Dam to Dublin. Climate conditions vary depending upon the mean sea level, altitude, the topography and the distance from the ocean and the Bay.

Differences in annual rainfall are associated with differences in relief and vary widely over short distances. Mean annual precipitation ranges from 12.8 inches (at the Patterson Plant station in Livermore) to 26.32 inches (at the Albany Talbot station).

The average annual temperature for the County ranges roughly between 57° F at the Berkeley station and 61° F at the Oakland Museum station.

TRANSPORTATION

Alameda County is served by an extensive and well developed transportation system, including major highways, rail, port and airport facilities, as well as local streets, rail rapid transit, and local and interurban buses.

The major network of freeways in Alameda County includes Interstate Highway 880, which forms the major north/south connection in the County. Interstates 80, 580 and 680 also provide easy access for residents and businesses to major ports, rail heads and other Bay Area communities.

The rail system is served by three major railroads: Southern Pacific, Santa Fe and Union Pacific. Passenger rail service is provided by Amtrak.

A very vital transportation asset is the Port of Oakland which provides 90% of the shipping cargo delivered in the Bay Area. Being one of the nation's major containerized shipping facilities, it provides indispensable connection to international market areas. The Port occupies over 550 acres of marine terminal facilities and is physically the largest Pacific Coast facility. The Port is one of the top 20 shipping facilities in the nation and serves as a loading point for large quantities of secondary materials that are targeted for the Pacific Rim markets. The Port acts as a major gateway for intermodal transit to and from the Pacific Rim, the Eastern and Midwestern States and Northern California.

Oakland International Airport provides the County with air cargo and passenger services for businesses and individuals. Additional air transportation is also available at the Hayward and Livermore general aviation airports.

Public transportation in the County primarily includes the Bay Area Rapid Transit and the Alameda-Contra Costa Transit systems which provide a practical and efficient means of transportation throughout the Bay Area and within Alameda County.

POPULATION

Most of the County's population is concentrated in the narrow area between the East Bay Hills and the Bay. Alameda County is currently the sixth most populous county in California, with a 2000 population of 1,443,741. The average population per household in 2000 for the entire County is 2.71.

Table A on the following page illustrates the population in Alameda County based on the most recent 2000, 1994 and 1992 data from the California Department of Finance and the 2000 Census Data (the figures used in the preparation of the SRRE's).

The population in Alameda County is ethnically diverse. The County population according to the 2000 Census data (the most recent data) was made up of 48.8% White (non Hispanic), 14.9% Black (non Hispanic), 19% Hispanic, 21% Asian and Pacific Islander, 0.6% American Indian and Alaska Native, and 8.9% other (non Hispanic).

The median age of the County's population was 34.5 in 2000, with 24.6% of the population under 18 years old, 65.2% in the 18 to 64 years range, and 10.2% in the 65 years and over category.

TABLE A

ALAMEDA COUNTY POPULATION

JURISDICTION	1990[1]	1992[2]	1994[3]	2000[4]
City of Alameda	76,459	80,815	79,829	73,713
City of Albany	16,327	16,682	17,404	17,836
City of Berkeley	102,724	104,156	104,923	109,463
City of Dublin	23,229	25,162	26,270	32,519
City of Emeryville	5,740	6,018	6,439	7,311
City of Fremont	173,339	177,474	184,590	208,026
City of Hayward	111,498	118,165	122,384	129,610
City of Livermore	56,741	59,393	62,857	74,303
City of Newark	37,861	38,467	39,503	43,043
City of Oakland	372,242	377,898	384,097	402,104
City of Piedmont	10,602	10,831	11,084	11,625
City of Pleasanton	50,553	52,584	55,444	65,930
City of San Leandro	68,223	69,477	71,564	76,736
Union City	53,762	55,497	57,562	67,240
Total Incorporated	1,159,300	1,192,619	1,223,950	1,319,459
Total Unincorporated[5]	119,882	120,713	123,980	134,843
COUNTY TOTAL	1,279,182	1,313,332	1,347,930	1,454,302

[1] Source: 1990 Census Population - Alameda County; Public Law 94-171 Reapportionment Data Release, 1990. These are the figures used in the SRREs.

[2] Source: 1992 Population and Housing Estimates - Alameda County and its Cities; California Department of Finance, Report E-5, 1992.

[3] Source: Alameda County Population and Housing Estimates - as of January 1, 1994; California Department of Finance, Report E-5, printed 4/28/94.

[4] State of California, Department of Finance, *City/County Population and Housing Estimates, 1991-2000,* Sacramento, California, May 2000.

[5] For the 1990 population figure, this number was derived from adding the population numbers of the following areas: Ashland CDP, Castro Valley CDP, Fairview CDP, San Lorenzo CDP, and the Unincorporated Remainder. CDP (Census Designated Place) defines boundaries for closely settled population centers that are not incorporated.

The 1994 and 1992 population data does not separate unincorporated areas into CDPs. The number of population for the unincorporated area is represented by one figure: Total Unincorporated.

INCOME

The most recent income data available for Alameda County comes from the U.S. Census Bureau: Census of Population and Housing, 2000. According to the census, the median household income for Alameda County is $55,946, with a mean county income of $72,629. The families median income is $65,857, with a mean income of $82,614. The overall per capita income for the County is $26,680.

HOUSING

According to the 2000 data (Alameda County Housing Units by Type, Vacancy Rate, Persons per Household, California Department of Finance) the number of housing units in Alameda County (including single family, multiple family, and mobile homes) is 530,115 units, an increase by approximately 5.1% since 1990.

The estimated number of single family units (including detached and attached units) is 329,359, most of which (89%) are detached units. Multiple family units (including duplex, triplex, fourplex and five or more units) amount to 203,826 units, and mobile homes amount to 6,998 units in the County.

APPENDIX B

OVERVIEW OF METHODOLOGIES UNDERLYING SOLID WASTE DATA GENERATED FOR THE ALAMEDA COUNTY INTEGRATED WASTE MANAGEMENT PLAN

Pursuant to AB 939, each city and the County for the unincorporated area is required to conduct a Waste Generation Study which quantifies waste disposal, waste diversion and waste generation within its political boundaries, relative to waste composition and waste quantity.

In Alameda County, three separate studies were done, one each for the cities of Hayward and Berkeley, and a region-wide study for all of the seventeen jurisdictions within Alameda County, including the unincorporated county area and two sanitary districts.

A summary of the methodologies for each of these studies is summarized below for informational purposes. Detailed information for the respective jurisdiction is contained in individual SRREs.

CITY OF BERKELEY

The City of Berkeley 1989 seasonal waste composition study and quantity survey was conducted by Cal Recovery Systems and their sub-contractor, Recovery Sciences, Inc.

The study consisted of: 1) sampling/sorting waste delivered to the Berkeley Transfer Station over four one-week periods spaced at three month intervals over a year; 2) estimating total waste quantities; 3) Projecting waste diversion and disposal quantities.

Waste Quantity
Waste estimates were compiled from City and non-City haulers. Quantities were also compiled for materials being diverted into recycling channels for City and non-City sponsored programs. Materials that are reused without entering the waste stream were not included in this study.

Waste Generation Rates
Waste Generation Rates were measured for each quarter from the information gathered during the collection of special route samples and from transfer station weight summaries for residential routes. Calculations for the residential waste generation rates are based partly upon 1980 population Census data.

Quantities Landfilled
Measurements and landfill site disclosures were compiled from transfer station accounting summaries and from a confidential hauler survey.

Waste Projections
Waste generation projections are based on the assumption that the annual growth in waste generation is equal to the average population growth rate (0.8% compounded equals 12.7% between the years 1990-2005).

Solid waste disposal projections are based on population growth projections. It is assumed that the proportions of each generator category (residential, commercial, industrial, construction/demolition debris, and self-haul) will contribute a similar proportion to the total future waste stream as at present.

Population projections are based on estimated ABAG percentage increases from the Preliminary 1990 Census data and on ABAG population projections for 1990-1995, and 1995-2000.

CITY OF HAYWARD

The Waste Generation Study for the City of Hayward was done by R.W. Beck and Associates Consultants. The methodology underlying the study was comprised of three parts:

Disposal Characterization Methodology
A waste disposal field analysis was performed at the Davis Street Transfer Station to determine Residential and Commercial Waste Composition for the City of Hayward.

The number of samples were based on data from the California Waste Management Board resource manual, 1989. Landfill disposal data, was obtained from facility operators (Oakland Scavenger and Browning Ferris Inc.) and private haulers.

Solid Waste Diversion Characterization
The purpose of this effort was to determine the composition and quantity of waste diverted from disposal within Hayward. The principal method used was a combination mail and phone survey. The survey asked each facility operator to provide; A) total amount of material collected at the facility; B) an estimate of the amount derived from Hayward; C) a breakdown by generation from the residential, commercial and industrial sectors; D) who the material is purchased from and where it is sold. Seasonal variation in diversion was considered.

Additional (random) phone surveys were used to determine participation in specific waste reduction or diversion programs/activities.

Waste Generation Projections: Methodology
The projections are based on anticipated growth in population for the residential waste stream and anticipated growth in businesses and employment for the commercial and industrial waste streams, specifically of known developments.

Per capita waste disposal and diversion rates were calculated by dividing the total quantity of residential waste disposed by the city population. Current population figures (State Department of Finance, 1990) and ABAG growth rates for the city of Hayward were used in these calculations. For commercial and industrial generators, the average yearly percentage increase in the number of employees was used, based on ABAG employment projections. Each sector's yearly percent increase was used to project disposal and diversion tonnages.

The projections assumed continuation of the existing solid waste management system, attainment of AB 939 diversion mandate by the benchmark dates, and a constant per capita waste generation rate.

REMAINING ALAMEDA COUNTY JURISDICTIONS

Waste Generation Studies for all municipalities and for the Oro Loma and Castro Valley Sanitary Districts were developed by Brown and Caldwell Consultants. The study was performed in two parts: waste disposal characterization and waste diversion characterization.

Solid Waste Disposal Characterization

Demographic Study: A demographics study was conducted to provide background demographics on each jurisdiction. The resulting demographic profiles were used as a basis for proportionally allocating solid waste disposal quantities and categories to each of the jurisdictions in Alameda County.

Residential profiles were developed using general plan documents, land use and zoning information, environmental review documents and housing elements, in addition to State Department of Finance, ABAG Projections '90 and preliminary 1990 Census data.

The commercial/industrial demographics study used relevant jurisdiction data bases (business licenses), categorized according to SIC codes.

Waste Quantities

Quantities were based on the findings of the solid waste generator characterization as well as disposal information provided by operators/companies receiving waste originating from Alameda County.

Methodology

The commercial/industrial (C/I) waste characterization study used a combined methodology consisting of a mail survey, a photographic survey of open waste containers, facility waste audits and quantitative field analysis at selected facilities.

Waste Disposal Allocation

Adjustments were made to the residential waste characterization findings to factor seasonal variations. Adjustments to C/I findings were in the area of

food waste, tire/rubber waste, construction/demolition debris and self-haul waste.

All data obtained from haulers and facility operators were grouped into disposal site service areas for the Altamont Landfill (including Davis Street Transfer Station), Tri-Cities Landfill and Vasco Road Landfill.

Franchised haul: The distribution of franchised haul between residential and C/I was based on the residential waste characterization findings. Commercial franchised haul was assumed to be everything that was not allocated to residential.

For each jurisdiction, the residential disposal quantity plus a calculated C/I disposal quantity based on hauler supplied data was compared to disposal quantities reported by the landfill operator. The difference between the total computed tonnage and the reported tonnage was used to adjust each of the jurisdiction's computed total waste disposal quantity, based on the jurisdiction's relative percentage of the computed total.

Non-franchised haul: For non-franchised haul, C/I and self-haul waste disposal quantities were provided by the landfill operators for the County as a whole. Allocation of construction/demolition materials was based on the jurisdiction's population (percentage of County total). C/I self haul waste was allocated on the basis of their percentage contribution to the total C/I waste load to the landfill.

Solid Waste Diversion Characterization

The study focused on facilities that serve as brokers and processors of major quantities of materials, including AB 2020 centers, and individual jurisdiction curbside collection programs. Facilities were identified through recycling resource guides and the telephone directory. Data obtained was largely operator estimates. Where operators were unable to provide jurisdiction specific data, allocations were made on the basis of population. Of 250 facilities contacted, 200 responded.

Projections

Solid Waste generation projections are based on population growth projections for each jurisdiction, derived from ABAG projections (U.S. Census data). The projections assume that the current waste generation rate and existing conditions will remain the same.

WASTE GENERATION PROJECTIONS AND CAPACITY DEPLETION ANALYSIS FOR ALAMEDA COUNTY LANDFILLS, 1990-2045

Adapted from a Waste Generation and Capacity Depletion Analysis Study conducted by EBA Wastetechnologies for the Time Extension of Importation of Contra Costa Waste to the Altamont Sanitary Landfill, EIR, certified December 19, 1991. Between 1990-1995, waste projection figures assume a 25% waste diversion rate, thereafter the assumed diversion rate is 50%.

Waste Generation Projections

Regarding methodology, waste generation estimates are based on the total amount of waste disposed at the respective landfills in 1990 (as provided by the landfill operators), and the 1990 diversion rate, divided by the 1990 service area population (1990 Preliminary Census data) to determine a per capita waste generation rate.

1990 per capita rates were estimated to be: 1.84 tons for the Altamont Landfill Service Area; 1.89 tons for the Tri-Cities (Durham Road) Facility Service Area, until 1992, when the rate is projected to drop to 1.71 tons; and 3.52 tons for the Vasco Road Landfill Service Area.

Projections: 1990-2005

ABAG population projections '90 are used to project waste generation through 2005. The average growth rate for the respective service areas was 0.74% for Altamont; 1.4% for the Tri-Cities; and 0.9% for Vasco Road.

Projections: 2005-2045

ABAG growth rates for 1995-2000 were used to project service area growth from 2005 to 2045. Growth rates for the respective service areas were 0.64% for Altamont; 0.9% for Tri-Cities; and 1.4% for Vasco Road. In summary, the study indicated that between 1990 -2045, the population of the Altamont Landfill service area would increase by 30%, would double for the Vasco Road Landfill service area, and would increase by 60% for the Tri-Cities Disposal Facility service area.

Capacity Depletion Analyses

Capacity depletion analyses are based on existing capacity at the three existing landfills in 1990 and 1995 as reported by facility operators and adjusted by the Authority, and on planned capacity for the Altamont, Tri-Cities and Vasco Road Landfills, for the period 1990-2045.

The analyses assume attainment of the mandatory 25% waste diversion goal by 1995 and 50% by 2000 for Alameda County areas serviced by the Altamont, Vasco Road and Durham Road Landfills, and for San Francisco County, on the assumption that San Francisco cannot develop in-County disposal capacity and would likely seek continued import to the Altamont Landfill in the foreseeable future.

Based on these assumptions, and on expansion capacity estimates provided by the respective operators, the study estimated that the Altamont Landfill would have 161.6 million tons remaining capacity in 2045, and the Vasco Road Landfill would reach capacity by 2017 (as opposed to 2025) if the ACWMA's estimate of remaining capacity is used in the calculation as opposed to the remaining capacity provided by the operator.

Methodological Notes

To ensure consistency in the analyses, landfill capacity is expressed in terms of tons as opposed to cubic yards, as are waste generation rates and waste projection data.

The 1990 remaining capacity figure indicates what is remaining at the end of 1990. Capacity at the start of 1990 would be the sum of what is remaining and what was depleted during 1990.

Similarly, growth rate is converted to a proportional representation for ease of application.

Note on Projections and Data Collection:

It is important to emphasize that there are inherent uncertainties in long-range projections, because of the assumption that existing conditions will remain the same. A number of factors could easily affect future waste stream_quantities, including rates of residential, industrial and commercial growth, technological advances in waste processing/packaging, social behavior, recycling and resource recovery efforts, and most importantly, legislative mandates and regulations.

The need to establish standard data collection, reporting and monitoring systems for all waste management operations within or serving Alameda County, and the Authority's efforts to achieve this goal, is discussed in Section 5 and elsewhere in this Plan. Uniform, reliable and comparable data bases are essential for accurately charting achievement of AB 939 goals, and for evaluating the efficiency of waste management strategies/programs and related expenditures, in general.

Thus, projected rates and related capacity analyses are therefore best viewed as estimates or approximations rather than fixed or indisputable numbers.

APPENDIX C

GLOSSARIES:

ACRONYM GLOSSARY

GLOSSARY OF CODIFIED WASTE MANAGEMENT TERMS

GLOSSARY OF WASTE MANAGEMENT TERMS & COMMON USAGES

ACRONYM GLOSSARY

Solid Waste Management / Environmental Field

AA: Aluminum Association

AB: Aggregate Base (C&D); also Assembly Bill

AC: Asphalt Concrete

ABAG: Association of Bay Area Governments

ACHC: Alameda County Home Composting Education Program

ACHWMP: Alameda County Hazardous Waste Management Plan

ADC: Alternative Daily Cover

ADT: Average Daily Traffic

ADEIR: Administrative Draft Environmental Impact Report

AEP: Association of Environmental Professionals

AFPA: American Forest and Paper Association

AISI: American Iron & Steel Institute

APA: American Planning Association

APC: American Plastics Council

API: American Paper Institute

API: American Petroleum Institute

APR: Association of Post consumer Plastic Recyclers

ARRA: Asphalt Recycling and Reclaiming Association

ASTM: American Society for Testing and Materials

ASTSWMO: Association of State and Territorial Solid Waste Management Officials

AWMA: Air and Waste Management Association

BAAQMD: Bay Area Air Quality Management District

BACT: Best Available Control Technology

BAHRC: Bay Area Hazardous Waste Reduction Committee

BANANA: Build Absolutely Nothing Anywhere Near Anything

BART: Bay Area Rapid Transit

BEN: Business Environmental Network

BFI: Browning-Ferris Industries

BG's: Bulky Goods

BOD: biological oxygen demand

BOP: Battery, Oil & Paint (type of HHW event)

BPC: Business and Professions Code

BRBA: Buy Recycled Business Alliance

B.REAL: Business Recyclers Educational Assistance Link (CRRA)

BRRAT: Bay Region Recycling Action Team

Btu: British thermal unit

BVA: Brown Vence & Associates

C&D: Construction and Demolition

CAB: Crushed Aggregate Base

CAC: Community Advisory Committee

CAL-EPA: California Environmental Protection Agency

CALMAX: California Materials Exchange

CAL-OSHA: California Occupational Safety & Health Administration

CAP: Community Advisory Panel

CARB: California Air Resources Board

CCR: California Code of Regulations

CDL: Construction Demolition and Land clearing

CDR: Center for Development of Recycling (San Jose State)

CEC: California Energy Commission; also
Community Environmental Council (non-profit research group)
(based in Santa Barbara)

CEQA: California Environmental Quality Act

CFCs: chlorofluorocarbons

CFR: Code of Federal Regulations

CH^2MHILL: Cornell Howland Hayes Merryfield Hill

CIWMB: California Integrated Waste Management Board

CMB: Crushed Miscellaneous Base (C&D)

CNNDB: California Natural Diversity Data Base

CO: carbon monoxide

CONCUR: Collaborative for Environmental Analysis and Conflict Resolution

CORC: California Organic Composting Council (CRRA)

CORRE: Corporation On Resource Recovery and the Environment (Washington, D.C.)

CoIWMP: County Integrated Waste Management Plan

CoSWMP: County Solid Waste Management Plan

C^2P^2C: California Pollution Prevention Committees

CPO: Computer Print-Out (waste paper)

CPPE: Council on Plastics and Packaging in the Environment

CRCCC: Community Recyclers of Contra Costa County

CRRA: California Resource Recovery Association

CSAC: California State Association of Counties

CSWS: Council for Solid Waste Solutions

CTB: Cement Treated Base

CTPB: Cement Treated Permeable Base

CUP: Conditional Use Permit

CWE: California Waste Exchange

Cy: Cubic Yards

DEIR: Draft Environmental Impact Report

DHS: California Department of Health Services

DIY: Do-It-Yourself (Oil Changer)

DOC: Department of Conservation; also Department of Commerce

DOR: Division of Recycling (DOC)

DTSC: Department of Toxic Substances Control

DUDE: Developer Under Delusions of Entitlement

EBCC: East Bay Conservation Corps

EBMUD: East Bay Municipal Utility District

EBRPD: East Bay Regional Park District

EBX: East Bay Excavating Company, Inc.

ECCCC: East County Community Collection Center (Contra Costa County)

ECO: Environmental Careers Organization

ECOSA: Environmental Compliance Support Association of California

EIR: Environmental Impact Report

EIS: Environmental Impact Statement

ELF: Environmental Law Foundation

EPA: Environmental Protection Agency (usually connotes Federal level)

EPS: Expanded Polystyrene Styrofoam

FEIR: Final Environmental Impact Report

FEMA: Federal Emergency Management Agency

FOB: Free On Board

GPI: Glass Packaging Institute

GRCDA: Governmental Refuse Collection and Disposal Association

GREBE: Guide to Resource Efficient Building Elements

HELP: Hydrologic Evaluation of Landfill Performance

HHW: Household Hazardous Waste

HHWE: Household Hazardous Waste Element

HI: High Grade Paper (as shown in Figure 6-A)

HSC: Health & Safety Code

HWMCAC: Hazardous Waste Management Coordinating Committee (ABAG)

HWMP: Hazardous Waste Management Plan

ICRA: International Cartridge Recycling Association

IGP: Intermediate Glass Processor

IMSWM: Integrated Municipal Solid Waste Management

IP: International Paper

IPC: Intermediate Processing Center

IPS: Intermediate Processing System

IRRF: Integrated Resource Recovery Facility (e.g., West Contra Costa County IRRF)

ISIS: Institute of Scrap Iron and Steel (defunct)

ISRI: Institute of Scrap Recycling Industries, Inc.

IWMF: Integrated Waste Management Facility

JPA: Joint Powers Agreement

JRRRC: Joint Refuse Rate Review Committee

KAB: Keep America Beautiful

LAC: Legislative Advisory Committee

LDR: Land Disposal Restrictions

LEA: Local Enforcement Agency

LGC: Local Government Commission

LGTAC: Local Government Technical Advisory Committee (advisory to CIWMB)

LTF: Local Task Force

MATMIX: Materials mix; recycled products made of more than one material type

MCM: Mixed paper, corrugated, and magazines

MFF: Materials for the Future Foundation

MIXPL: Mixed plastics; made from two or more plastics

MMM&M: Multi Material Management and Marketing

MOU: Memorandum of Understanding

MR&CF: Materials Recovery and Composting Facility

MRF: Materials Recovery Facility

MSW: Municipal Solid Waste

MSWLF: Municipal Solid Waste Landfill

MWC: Municipal Waste Combustor

NALGEP: National Association of Local Government Environmental Professionals

NAPCR: National Association for Plastic Container Recovery

NAPEC: National Association of Professional Environmental Communicators

NARI: National Association of Recycling Industries

NCR: No Carbon Required (carbonless paper)

NCRA: Northern California Recycling Association

NDF: Non-Disposal Facility

NDFE: Non-Disposal Facility Element

NDPES: National Pollution Discharge Elimination System

NEPA: National Environmental Policy Act

NERC: Northeast Recycling Council

NGO: Non-Governmental Organization

NIMBY: Not In My Back Yard

NONBC: Non-beverage container; drink packaging of liquids not currently defined as beverages under the California Beverage Container Recycling and Litter Reduction Act (e.g. waxed paperboard milk cartons)

NOP: Notice of Preparation

NOX: nitrogen oxide

NPCA: National Painting and Coatings Association

NRC: National Recycling Coalition

NRDC: National Resources Defense Council

NRRA: National Resource Recovery Association

NSDA: National Soft Drink Association

NSWMA: National Solid Wastes Management Association

O & M: Operation and Maintenance (of facility, equipment)

OCC: Old Corrugated Containers (Cardboard)

ONP: Old Newspapers

OSC: Oakland Scavenger Company

OWP: Office Waste Paper

P3: Partnership for Plastics Progress

PAC: Public Advisory Committee

PAP: Public Advisory Panel

PBA: Plastic Bag Association

PCBs: polychlorinated biphenyls

PCC: Public Contract Code

PCR: Post-Consumer Recycled

PCY: pounds / cubic yard

PIES: Pollution Prevention Information Exchange System (EPA - modem)

PLASTICS:	PET:	Polyethelene Terephthalate
	HDPE:	High Density Polyethelene
	PVC:	Vinyl (Polyvinyl Chloride)
	LDPE:	Low Density Polyethelene
	PP:	Polypropylene
	PS:	Polystyrene (often called Styrofoam, a Dow Chemical brand trademark)
	OP:	Other Plastics (other than PET, HDPE, PVC, LDPE, PP, or PS)

PMC: Pacific Materials Exchange

PPW: Pollution Prevention Week (Local Government Commission)

PRBA: Portable Rechargeable Battery Association

PRC: Public Resources Code

PSI: Paper Stock Institute

PTF: Paint Task Force (California)

PUC: Public Utilities Code

3R's: Reduce, Reuse, Recycle

RAC: Recycling Advisory Council (Washington, D.C.)

RAC: Recycled Asphalt Concrete

RAM: Reclaimed Aggregate Materials

RAP: Reclaimed Asphalt Pavement

RC: Reinforced Concrete

RCRA: Resource Conservation and Recovery Act

RDF: Refuse-Derived Fuel

ReMARC: Recycling Market Development Council (CRRA)

RFB: Request for Bid

RFP: Request for Proposals

RFQ/CP Request For Qualifications and Conceptual Proposals

RIA: Reuse Industry Alliance (CRRA)

RIP: RCRA Implementation Plan

RMDZ: Recycling Market Development Zone

ROC: reactive organic compound

ROSCOE: Recycle Our Steel, Conserve Our Environment
(mascot of the Steel Can Recycling Institute)

RPIN: Recycled Products Information Network

RRI: Resource Renewal Institute

RSW: Residential Solid Waste

RTC: Revenue & Taxation Code

RTS: Recycling Tracking Software

RWQCB: Regional Water Quality Control Board

SB: Senate Bill

SCH: State Clearinghouse

SCOR: Source-separated Composting and Organic Recycling Association

SCRI: Steel Can Recycling Institute

SFCR: San Francisco Community Recyclers

SIC: Standard Industrial Classification

SLCRC: San Leandro Community Recycling Center

SLUG: San Francisco League of Urban Gardeners

SMaRT: Station for Materials Recovery and Transfer

SPI: Society of the Plastics Industry

SROC: State Recycling Organizations' Council

SRRE: Source Reduction and Recycling Element

STMC: Scrap Tire Management Council

SWANA: Solid Waste Association of North America

SWFP: Solid Waste Facilities Permit

SWGS: Solid Waste Generation Study

SWICH: Solid Waste Information Clearinghouse

SWIS: Solid Waste Information System

SWRRA: Solid Waste Reuse & Recycling Access (AB 1327)

TAC: Technical Advisory Committee

TCEC: Tri-City Ecology Center

TCWMC: Tri-City Waste Management Committee

TCF: Totally Chlorine Free (paper)

TDF: Tire-Derived Fuels

TDR's: Transfer of Development Rights

TEGD: Technical Enforcement Guidance Document

TIC: Technical Information Committee

TPD: Tons Per Day

TPW: Tons Per Week

TPY: Tons Per Year

Tri-CED: Tri-Cities Community Economic Development Agency (non-profit)

TSDF: Treatment, Storage, Disposal Facility

UBC: Used Beverage Cans

UP: Use Permit

V/C: volume-to-capacity

VMT: Vehicle Miles Traveled

VOC: volatile organic compound

WFC: Waste Flow Control

WIPP: Waste Isolation Pilot Plan

WMAC: Waste Management of Alameda County (formerly OSC)

WMX: Waste Management Incorporated (parent company of WMAC)

WRAB: Waste Reduction Advisory Board

GLOSSARY OF CODIFIED WASTE MANAGEMENT TERMS

as Defined in the California Integrated Waste Management Statutes - January 1993
(which include sections from the Public Resources Code, Business & Professions Code, Health & Safety Code, and Public Contracts Code)

Action by a city, county or regional agency - (PRC §41781.2) means franchise or contract conditions, rate or fee schedule or land use decisions, disposal facility permit conditions, or activities by a waste hauler, recycler, or disposal facility operator acting on behalf of a city, county or regional agency if the local government action is specifically related to the claimed diversion.

Agricultural Wastes - (PRC §41781.2) includes solid wastes of plant and animal origin, which result from the production and processing of farm or agricultural products, including manures, orchard and vineyard prunings, and crop residues, which are removed from the site of generation for solid waste management. Agriculture refers to SIC Codes 011 to 0291, inclusive.

Biodegradable - (BPC §17508.5) a material that has the proven capability to decompose in the most common environment where the material is disposed within *one year* through natural biological processes into nontoxic carbonaceous soil, water or carbon dioxide.

Biomass or **Biomass Waste** - (HSC §25143.5) any organic material not derived from fossil fuels, such as agricultural crop residues, bark, lawn, yard and garden clippings, leaves, silviculture residue, tree and brush prunings, wood, wood chips, and wood waste, including these materials when separated from other waste streams. "Biomass" or "biomass waste" does *not* include material containing sewage sludge, industrial sludge, medical waste, hazardous waste or radioactive waste.

Board - (PRC §3477.1, §40110) refers to the California Integrated Waste Management Board [CIWMB].

Closure Plan - (PRC §46022) a plan prepared by the owner or operator of a solid waste landfill to close the landfill in accordance with permit conditions and standards as may be required by a regional water board, an enforcement agency, and the Board.

Co-compost Product - (PCC §12181) an end product which meets all of the following requirements: (a) It is derived from a blending of materials which at least 80%, whenever possible, is household refuse and the remainder is sewage sludge or other comparable substitutes, including, but not limited to, nontoxic dairy wastes, livestock and horse manure, or fish wastes. (b) It is usable. (c) It is produced by the waste management facilities of counties, cities or local agencies, or of private entities.

Compost - (PRC §40116, §42231) the product resulting from the controlled biological decomposition of organic wastes that are source separated from the municipal solid waste stream, or which area separated at a centralized facility. "Compost" includes vegetable, yard, and wood wastes which are not hazardous waste.

Compost Product - (PCC §12182) an end product which meets all of the following requirements: (a) It is derived from the controlled biological decomposition of a blend of organic wastes, including, but not limited to, wood byproducts, plant waste, including, but not limited to, rice straw, yard refuse, or sewage sludge.

Corrective Action - (PRC §46024) any action, required or approved by an enforcement agency, the Board, a regional water board, or an air quality management district or air pollution control district, to abate a nuisance or prevent the migration of methane gas or contaminated ground or surface water as necessary to protect the human health and the environment.

Development Project- (PRC §42905) a project for which a building permit will be required for a commercial, industrial, institutional building, marina, or residential building having five or more living units, where solid waste is collected and loaded and any residential project where solid waste is collected and loaded in a location serving five or more units. Any new public facility where solid waste is collected and loaded and any improvements for areas of a public facility used for collecting and loading solid waste.

Development Zone - (PRC §42142 (d)) means any single or joint, contiguous parcels of property that, based on the determination of the Board, meets at least the following criteria:

(1) The area has been zoned an appropriate land use for the development of commercial, industrial, or manufacturing purposes.

(2) The area is identified in the countywide integrated waste management plan [CoIWMP] as part of the market development section.

(3) The area is located in a city with an existing post-consumer waste collection franchise.

(4) The area may be used to establish commercial, manufacturing, or industrial processes.

Disposal or Solid Waste Disposal- (PRC §40192) the final deposition of solid wastes onto land, into the atmosphere, or into the waters of the state.

Disposal Facility - (PRC §40121) any facility or location where disposal of solid waste occurs.

Diversion - (CCR, Title 14, §18720) to divert solid waste, in accordance with all applicable federal, state, and local requirements, from disposal or transformation through source reduction, recycling or composting.

Inerts Solids - (PRC §41781.2) includes rock, concrete, brick, sand, fines, asphalt, drywall, and unsorted construction and demolition waste.

Inert Waste (PRC §46025) - a nonliquid waste including, but not limited to, soil and concrete, that does not contain hazardous waste or soluble pollutants at concentrations in excess of water quality objectives established by a regional water board pursuant to Division 7 of the Water Code and does not contain significant quantities of decompostable waste.

Local Agency

(PRC §3478) - a city, county or city and county.

(PRC §42803) - a county, city, special district, or other local government agency which provides or regulates solid waste handling services.

(PRC §49502) - any county, city, or district having the authority to provide solid waste handling services either by the agency itself or by authorizing or permitting other local agencies or solid waste enterprises to provide solid waste handling services.

Metallic Discard (PRC §42161) - any large metal article or product, or any part thereof, including, but not limited to, metal furniture, machinery, major appliances, electronic products, and wood-burning stoves.

Major Appliances (PRC §42166) - any domestic or commercial device, including, but not limited to, washing machines, clothes dryers, hot water heaters, dehumidifiers, conventional ovens, microwave ovens, stoves, refrigerators, freezers, air-conditioners, trash compactors, and residential furnaces.

Non-Disposal Facility (PRC §40151) - any solid waste facility required to obtain a solid waste facility permit , except a disposal facility or a transformation facility. NDFs include transfer and processing stations, including Material Recovery Facilities (MRFs) that received unsorted waste, and Composting Facilities.

Operator (PRC §40160) - person or entity to whom the approval to operate a disposal site, transfer or processing station, or collection system is granted.

Owner - person or entity who owns a solid waste facility.
(paraphrased from PRC §42805, §44201)

Photodegradable - a material that has proven its capability to decompose in the most common environment where the material is disposed within one year through physical processes, such as exposure to heat and light, into nontoxic carboneous soil, water or carbon dioxide.
(BPC §17508.5)

Pollution - the condition caused by the presence in or on a body of water, soil, or air of any solid waste or substance derived therefrom in such quantity, of such nature and duration, or under such condition that the quality, appearance, or usefulness of the water, soil, land or air is significantly degraded or adversely altered.
(PRC §40171)

Postclosure Plan - a plan prepared by the owner or operator of a solid waste landfill to maintain the landfill for at least 30 years after closure in accordance with any permit conditions and standards which may be required by a regional water board or the Board.
(PRC §46026)

Post-consumer Material- finished product which would normally be disposed of as solid waste, having completed its intended end-use and product life cycle. "Post-consumer material" does *not* include manufacturing and fabrication scrap.
(PRC §12200, §41970, §42301)

Post-consumer Waste Material - Any product generated by a business or a consumer which has served its intended end use, and which has been separated from solid waste for the purposes of collection, recycling, and disposition and which does *not* include manufacturing or secondary waste material.
(PRC §42142 (c))

Items offered for sale, but not sold are considered post-consumer.
(PRC §42301)

Processing (PRC §40172)	-	means the reduction, separation, recovery, conversion, or recycling of solid waste.
Recovered Material (CCR, Title 14, §18720)	-	material which has been retrieved or diverted from disposal or transformation for the purpose of recycling, reuse or composting. "Recovered material" does *not* include those materials generated from and reused on site for manufacturing purposes.
Recycle or Recycling (PRC §40180)	-	means the process of collecting, sorting, cleansing, treating, and reconstituting materials that would otherwise become solid waste, and returning them to the economic mainstream in the form of raw material for new, reused, or reconstituted products which meet the quality standards necessary to be used in the marketplace. "Recycling" does *not* include transformation.
Recycling Residue (PRC §42163)	-	nonhazardous residue or residue treated to be nonhazardous that is a direct result of material recovery operations for the express purposes of recycling.
Regional Water Board (PRC §40182)	-	means a California regional water quality control board.
Residential Household (PRC §40061)	-	those single and multifamily residential units which are not charged a periodic fee for the collection, transportation, and disposal of solid waste or which are assessed a periodic fee which represents less than 90% of the local agency's total cost of providing these services.
Salvage (PRC §42162)	-	refers to the controlled removal of discards from the solid waste stream at a permitted solid waste facility for the express purpose of recycling or reuse.
Scrap Metal (PRC §41781.2)	-	includes ferrous metals, nonferrous metals, aluminum scrap, other metals, and auto bodies, but does *not* include aluminum cans, steel cans, or bimetal cans.

Secondary Waste Material (PRC §42142 (e), PRC §42202) - means industrial byproducts which would otherwise go to disposal facilities and wastes generated after completion of a manufacturing process, but does *not* include internally generated scrap commonly returned to industrial or manufacturing processes, such as home scrap and mill broke. Fragments of finished products or finished products of a manufacturing process, which has converted a virgin resource into a commodity of real economic value, and includes post-consumer waste, but does *not* include fibrous waste generated during the manufacturing process such as fibers recovered from waste water or trimmings of paper machine rolls (mill broke), wood slabs, chips, sawdust, or other wood residue from a manufacturing process.

Siting (PRC §44201) - refers to the physical suitability of a location proposed for a solid waste facility.

Solid Waste (PRC §40191, §49503) - refers to all putrescible and nonputrescible solid, semisolid, and liquid wastes, including garbage, trash, refuse, paper, rubbish, ashes, industrial wastes, demolition and construction wastes, abandoned vehicles and parts thereof, discarded home and industrial appliances, dewatered, treated, or chemically fixed sewage sludge which is not hazardous waste, manure, vegetable or animal solid and semisolid wastes, and other discarded solid and semisolid wastes.

Solid Waste Enterprise (PRC §40193, §49504) - any individual, partnership, joint venture, unincorporated private organization, or private corporation regularly engaged in the business of providing solid waste handling services.

Solid Waste Facility (PRC §40194) - includes a solid waste transfer or processing station, a composting facility, a transformation facility, and a disposal facility.

Solid Waste Handling - (PRC §40195) means the collection, transportation, storage, transfer or processing of solid wastes.

Solid Waste Handling Services - (PRC §49505) means the collection, transportation, storage, transfer or processing of solid wastes for residential, commercial, institutional, or industrial users or customers.

Solid Waste Landfill - (PRC §46027) a disposal facility that accepts solid waste and which meets the requirements of a landfill pursuant to Section 2533 and 2541 of Title 23 of the CCRs. "Solid waste landfill" does *not* include a facility which receives only wastes generated by the landfill owner or operator in the extraction, beneficiation, or processing of ores and minerals, a facility which receives only nonhazardous wood waste derived from timber production or wood product manufacturing, or a cemetery which disposes on-site only the grass clippings, floral wastes, or soil resulting from activities on the grounds of that cemetery.

Transformation - incineration, pyrolysis, distillation, gasification, or (PRC §40201) biological conversion other than composting. "Transformation" does *not* include composting.

GLOSSARY OF WASTE MANAGEMENT TERMS AND COMMON USAGES

General Definitions

Aluminum - a strong, light silver-colored metal made chiefly from bauxite ore.

Bauxite Ore - mineral from which aluminum is made.

Bimetal - made from two types of metal.

Bottom Ash - the ash that remains after incineration.

CFCs - (chlorofluorocarbons) a group of manufactured chemicals found in some plastic foam cups, packaging, insulation, aerosol containers, and in cooling systems of most air conditioners and refrigerators. CFCs are not biodegradable; they destroy the thin layer of ozone at the outer layer of the earth's atmosphere and contribute to the greenhouse effect.

Close the Loop- purchasing recycled products or products made of recycled materials.

Commingle- to mingle together; intermix; to combine like or similar recyclable items.

Contaminants- materials that pollute and harm our environment. As the word relates to recycling - items in a load of recyclables that are not of the same material type as the load.

Corrugated Paper- paper or cardboard that is corrugated (shaped or contracted into parallel grooves and ridges) so as to be resilient, used for wrapping or packaging.

Cullet - ground or crushed glass.

Curbside Recycling- residents separate predetermined recyclable materials from their trash and place them near the curb. There, the recyclable materials are picked up by a recycling vehicle.

Decompose- to break down and rot away.

Energy - the ability to produce heat or motion.

Environment - all of the conditions, circumstances and influences, surrounding and affecting the development of an organism or group of organisms.

Environmentalist- a person working to solve environmental problems, such as air and water pollution, the exhaustion of natural resources and uncontrolled population growth.

Ferrous Metal- iron-based metal.

Glass - a transparent inorganic material produced by combining silica sand with burnt lime or limestone and soda ash.

Glasphalt - similar to asphalt, but uses ground glass instead of gravel.

Green - the word and color that are becoming symbolic for ecology and awareness of the environment.

Hazardous Waste- (toxic waste) harmful materials that are disposed of which are toxic, flammable, explosive and/or caustic.

Humus - a brown or black complex variable organic material resulting from partial decomposition of plant or animal matter and forming the organic portion of soil.

Incineration - process of burning waste.

Inorganic - things not made from living substances.

Integrated Waste Management - an approach to waste management that incorporates reducing, reusing, recycling, composting, transforming and disposing of waste in and environmentally safe manner that protects public health and safety.

Landfill - a place where garbage, rubbish, etc., is disposed of by burying it under a shallow layer of soil.

Leachate - liquid that has percolated through solid waste and/or been generated by solid waste decomposition and has

extracted, dissolved or suspended materials in it. This liquid may contaminate ground or surface water.

Litter - small quantities of trash or garbage that are discarded, dropped or scattered without concern for their proper disposal. Litter includes material that fall out of containers, receptacles, vehicles, and packages, and can range from paper, metal cans, and bottles to auto parts, old furniture, and construction materials.

Methane - gas formed from decomposing waste.

Material Recovery Facility - (MRF) commonly used to describe facilities that receive, sort and process for market only *source-separated recyclables*, both commingled and segregated. However, it is also commonly applied to facilities that receive *mixed wastes* and which separate out materials for recycling prior to transferring the residue to a landfill or transformation facility.

Municipal Solid Waste- nonhazardous, nonagricultural solid waste generated by residences, businesses, and institutions.

Natural Resources - materials and capacities that are supplied by nature; i.e., plants, water and minerals which can provide medicines, power and tools. A renewable resource is one that can be replaced or readily replenished. Farmland, fish and forests can be renewed if used wisely. A nonrenewable resource is one that cannot be replaced or readily replenished. Underground minerals including metals and fossil fuels are nonrenewable resources.

Nonferrous Metals - metals that contain no iron, such as aluminum, copper and brass.

Nonrecyclable- inability to turn used products into new products by reprocessing or remanufacturing.

PCBs- (polychlorinated biphenyls) a group of toxic chemicals that were used for many industrial products including electrical transformers and fluorescent lights. PCBs are very poisonous, they are difficult to dispose of because they are not easily biodegradable and may remain in the environment for hundreds of years.

Petrochemical- chemical made from petroleum; used in making plastic.

Plastic- any of a large class of complex organic compounds formed by polymerization; capable of being molded or cast into various shapes and films. (*For a list of various types of plastics refer to the Acronym Glossary*.)

Precious minerals - rare and valuable minerals, such as bauxite ore and coal.

Recoverable Resources - materials that - after serving a specific purpose - still have useful chemical or physical properties and can be reused or recycled for the same or another purpose.

Recycling Center- a site where used manufactures materials are collected and resold for reprocessing. Types of centers include drop-off and donation or buyback; community service; and processing.

Recycling Coordinator - the city or county official responsible for coordinating waste reduction and recycling programs in the city or county.

Recycling Operator - person responsible for operating a recycling program/center.

Reduce - to lessen the amount of waste generated.

Refuse - anything thrown away or rejected as worthless or useless; waste; garbage; trash; rubbish.

Resin - natural, organic substance used in varnish, ink, plastics.

Resource Recovery - a process that extracts value from the wastestream in the form of materials, energy or fuel.

Reuse - using products over again, either for the same purpose or for another use.

Slurry - a thick watery mixture; usually the pulpy substance produced for paper making.

Solar Energy - energy produced from the sun. As earth revolves around the sun, the sun's rays warm it and provide energy necessary to sustain life. Solar collectors are being developed that will capture the sun's energy so that it can be used practically to power vehicles, run factories, and heat and cool homes. Solar energy is renewable and does not produce harmful wastes, which is why it is called "clean energy".

Waste - leftover, superfluous refuse; no longer of use.

Waste Disposal- controlled assimilation of waste materials into the environment without causing unacceptable damage.

Waste-to Energy - the process of burning waste to produce energy /electricity.

Waste Hauler - specially equipped company which picks up solid waste for disposal.

Watershed - the area drained by a network of creeks, streams, lakes and/or rivers. Watersheds provide drinking water for some cities. Some watersheds have been polluted by garbage and sewage.

Windpower Energy- windmills capture the energy of the wind. When windmills turn, they can make electricity. This electricity can be used directly or stored in batteries and can be used later, even when the wind dies down. Windmills are used in Alameda County to generate electricity in residences. Windpower is a clean, renewable energy.

Woodpulp - wood fiber separated by mechanical or chemical means; used in making paper and other products.