Alameda County
Integrated Waste Management Plan

COUNTYWIDE ELEMENT

Countywide Siting Element
Countywide Summary Plan
Alameda County Waste Management Authority

Agency
Alameda County
Alameda
Albany
Berkeley
Dublin
Emeryville
Fremont
Hayward
Livermore
Newark
Oakland
Piedmont
Pleasanton
San Leandro
Union City
Castro Valley Sanitary District
Oro Loma Sanitary District

Representative
Supervisor Keith Carson
Councilmember Trish Spencer
Mayor Peter Maass
Councilmember Susan Wengraf
Councilmember Don Biddle
Councilmember Dianne Martinez
Vice Mayor Suzanne Chan
Councilmember Greg Jones
Councilmember Laureen Turner
Councilmember Luis L Freitas
Councilmember Dan Kalb
Councilmember Tim Rood
Councilmember Jerry Pentin
Mayor Pauline Cutter
Councilmember Lorin Ellis
Boardmember Dave Sadoff
Boardmember Shelia Young

Alameda County Source Reduction & Recycling Board
Acting as the Alameda County Local Task Force

Position
City of Hayward
City of Albany
City of Piedmont
City of Union City
City of Pleasanton
Environmental Organization
Environmental Education
Recycling Materials Processing Industry
Recycling Program Operations
Solid Waste Industry
Source Reduction Specialist

Representative
Councilmember Greg Jones
Councilmember Peter Maass
Councilmember Tim Rood
Councilmember Lorin Ellis
Councilmember Jerry Pentin
Daniel O’Donnell
Toni Stein
Minna Tao
Adan Alonzo
Michael Peltz
Steve Sherman

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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.

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;
- 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."

This plan will be partially implemented through the Source Reduction and Recycling Plan which is attached as an Appendix.
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. The Source Reduction and Recycling Element is one important document in the Appendices as programs in this document will be partially implemented and elucidated through this plan and its updates.
PREVIOUS PLANNING EFFORTS

Once adopted, the revised CoIWMP will update the CoIWMP adopted by the Waste Management Authority in 1997 and subsequently amended several times.
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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 landfills.
- 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 communications efforts to promote Agency programs to the public.
- Implements the Business Assistance Projects (jointly with the Recycling Board, with the Recycling Board implementing waste reduction related business activities).
- Implements the Schools education program which includes transfer station tours.
- Implements facility development programs, such as the construction and demolition debris project and the MRF Capacity operations and monitoring project.
- Implements product decisions target projects in the areas of waste prevention, household hazardous waste, recycled content and hard to recycle products
- Implements and enforces Agency adopted ordinances including but not limited to mandatory commercial recycling, reusable bag, facility fee, and plant debris ban.
- 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% and beyond diversion goal and to achieve the Agency’s strategic plan goal to reduce the amount of readily recyclable and compostable materials deposited in landfills to no more than 10 percent of total materials landfilled by 2020. 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.
- 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**, $4.53 per ton on all wastes landfilled in Alameda County or generated in Alameda County and landfilled elsewhere in California (increased to this as of 1/1/10). These revenues are expended on countywide and local waste reduction programs.
• **Import Mitigation Fees**, presently $6.23 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.

• **Benchmark Services Fee**
  A new fee was adopted in 2013, paid on refuse collection bills, based on size of account. This fee pays for waste analysis and reports sent to garbage service account holders describing what type and how much recyclable and compostable material is found in Alameda County garbage containers, as well as what people can do to reduce waste and recycle more.

The Authority also levies pursuant to AB 939, a Household Hazardous Waste Management Fee of $2.15 per ton disposed. Additionally, the Authority adopted a $9.55 HHW fee per residential property unit on May 28, 2014 to be paid on Alameda County residential property tax bills. These two sources of funds are used by the Authority to provide oversight and outreach and by the County Department of Environmental Health and the City of Fremont to operate the county household hazardous waste collection and management program.

**County Recycling Board Budget and Revenue Sources**
The Recycling Board collects a $8.23 per ton landfill disposal fee 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% recycled product price preference funding earmarked for efforts by Alameda County government. The Recycling Board annually requested cost-of-living increases from the County Board of Supervisors through 2010.
<table>
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<tbody>
<tr>
<td>PLANNING</td>
<td>o ACWMA</td>
<td>responsible for the preparation, administration, policy-making, planning, and implementation of the CoIWMP Countywide Element</td>
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<tr>
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<td>o Cities</td>
<td>responsible for the preparation, planning, administration, policy-making, and implementation of the SRREs, HHWEs, and NDFEs</td>
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<td>BUDGETING</td>
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<td>ENFORCEMENT</td>
<td>o LEA</td>
<td>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.</td>
</tr>
<tr>
<td></td>
<td>o ACWMA</td>
<td>ACWMA enforces its ordinances re: mandatory recycling, plant debris landfill ban, reusable bag ordinance and facility fee collection</td>
</tr>
<tr>
<td>PROGRAM IMPLEMENTATION</td>
<td>o ACWMA</td>
<td>responsible for countywide programs as indicated in Section 6</td>
</tr>
<tr>
<td></td>
<td>o Cities</td>
<td>responsible for local programs as indicated in each jurisdiction's SRRE</td>
</tr>
<tr>
<td></td>
<td>o Recycling Board</td>
<td>provides funding to local jurisdictions; supports countywide programs</td>
</tr>
<tr>
<td>MAINTENANCE, REVISION, AND INTEGRATION</td>
<td>o ACWMA</td>
<td>refer to Section 5 for a discussion on Plan adoption, Plan Conformance and amendment processes.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>refer to Section 5 for discussion on Integration</td>
</tr>
</tbody>
</table>
2. **Local Enforcement Agencies [LEAs]**

LEAs, usually city or county public works or public health departments, are responsible for enforcing Cal Recycle 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 Cal Recycle. In addition to matters that are within the jurisdiction of Cal Recycle, 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. Cal Recycle 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**

<table>
<thead>
<tr>
<th>Department</th>
<th>Department Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>City of Alameda</td>
<td>Public Works Department Waste Management &amp; Recycling Program</td>
</tr>
<tr>
<td>City of Albany</td>
<td>Community Development Department – Environmental Resources Assistant</td>
</tr>
<tr>
<td>City of Berkeley</td>
<td>Public Works Department - Solid Waste Management Division</td>
</tr>
<tr>
<td>City of Dublin</td>
<td>City Manager's Office</td>
</tr>
<tr>
<td>City of Emeryville</td>
<td>Public Works Department</td>
</tr>
<tr>
<td>City of Fremont</td>
<td>Community Development Department Department of Public Works Integrated Waste Management Division</td>
</tr>
<tr>
<td>City of Hayward</td>
<td>Utilities &amp; Environmental Services Department</td>
</tr>
<tr>
<td>City of Livermore</td>
<td>Public Services Department</td>
</tr>
<tr>
<td>City of Newark</td>
<td>Community Development Department</td>
</tr>
<tr>
<td>City of Oakland</td>
<td>Office of Public Works Environmental Services Division</td>
</tr>
<tr>
<td>City of Piedmont</td>
<td>Department of Public Works / Planning</td>
</tr>
<tr>
<td>City of Pleasanton</td>
<td>Office of the City Manager</td>
</tr>
<tr>
<td>City of San Leandro</td>
<td>Environmental Services Department</td>
</tr>
<tr>
<td>City of Union City</td>
<td>City Manager's Office</td>
</tr>
<tr>
<td>Alameda County</td>
<td>Planning Department &amp; General Services Agency</td>
</tr>
<tr>
<td>Castro Valley Sanitary District</td>
<td>District Manager</td>
</tr>
<tr>
<td>Oro Loma Sanitary District</td>
<td>Solid Waste Department</td>
</tr>
</tbody>
</table>
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 was comprised of "citizen experts" in waste management and related fields, and is now comprised of the Recycling Board. The Technical Advisory Committee is made up of member agency staff representatives. Both these bodies reviewed and commented on the CoIWMP Countywide Element update.

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**

<table>
<thead>
<tr>
<th>BOARD/COMMITTEE</th>
<th>MEMBERS</th>
<th>ROLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>LTF (Local Task Force)</td>
<td>The Agency’s Recycling Board has been identified as the Local Task Force. The Recycling Board includes individuals representing the following: an environmental organization, environmental education, recycling materials processing industry, recycling program operations, solid waste industry and source reduction specialist and five representatives from the Waste Management Authority</td>
<td>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</td>
</tr>
<tr>
<td>TAC (Technical Advisory Committee)</td>
<td>Staff from each member agency; meets monthly</td>
<td>Advisory to staff of the Authority on technical and other matters related to the coordination and conduct of Authority programs</td>
</tr>
<tr>
<td>San Francisco Bay Area HWMCAC (Hazardous Waste Management Capacity Allocation Committee)</td>
<td>Representatives (elected officials) from each 9 bay area counties and representatives from one city from each member county</td>
<td>Develop a regional approach for providing hazardous waste management facility capacity in the region</td>
</tr>
</tbody>
</table>
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 Cal Recycle.

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 two national, publicly traded companies and four local, privately owned firms, and one regional, employee-owned firm 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 (currently closed). 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 four cities, 2 sanitary districts and with the County for a few small unincorporated areas, contracts for disposal only with three jurisdictions. 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.

- **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 two Alameda County jurisdictions (Livermore and Pleasanton). Republic has also secured one collection and disposal franchise in Alameda County (City of Piedmont). Republic owns the Richmond Sanitary Company in West Contra Costa County, and owns the West Contra Costa County Sanitary Landfill in Richmond. Republic acquired Allied in 2008. Republic has collection franchises with the Cities of Fremont, Union City, Newark and Piedmont.
• **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. A sister company, Amador Valley Industries (AVI), provides comprehensive collection services to the City of Dublin.

• **Alameda County Industries.** Alameda County Industries owns a facility permitted with a full solid waste facility permit which includes the existing MRF and the direct transfer facility in San Leandro. It holds contracts for garbage hauling and recycling services in a portion of the City San Leandro and all of the City of Alameda.

• **BLT.** BLT owns and operates the Fremont Transfer Station/MRF.

• **Livermore Sanitation Inc.** Livermore Sanitation Inc. owns a facility in the City of Livermore which is operated as a direct transfer station for recyclables and compostables. This facility became operational in May, 2010, upon issuance by the LEA of a registration level Direct Transfer Facility permit. The facility will only accept recyclables and compostables collected from within the city limits of the City of Livermore and from portions of unincorporated Alameda County served by LSI route trucks. Livermore Sanitation provides comprehensive collection services to the City of Livermore and to some nearby unincorporated residents.

• **Recology East Bay Organics.** Recology East Bay Organics will be the owner/operator of the Recology East Bay Organics Pre-Processing Facility located at 2020 Wake Avenue in Oakland. The land is owned by East Bay Municipal Utility District, but the facility will be owned/operated by Recology East Bay Organics. Recology East Bay Organics is building a pre-processing facility at this site to remove contaminants from organic rich residential and commercial sector materials, such as food waste and limited amounts of plant debris and organic rich waste. The resulting materials will be sent via pipe to one of East Bay Municipal Utility District’s anaerobic digestors for energy recovery. Recology East Bay provides commercial food waste collection and recycling under a competitive open market in Oakland and provides services to other Alameda County communities with non-exclusive franchises, open markets or permit systems. The facility is expected to be permitted for 600 tons per day. Materials will be brought to this facility by Recology and possibly other haulers. This facility is expected to become operational in 2015 upon issuance of all applicable permits including full solid waste facilities permit by the state of California and Alameda County LEA.

• **Todd Fitch and Mike Tejero.** Fitch and Tejero are the owners/operators of the Hayward Transfer Station located at 3458 Enterprise Avenue in Hayward. The Hayward Transfer Station will be a medium volume construction, demolition, and inert debris processing facility. The facility will encourage customers to bring source separated construction and demolition materials, which will be transported to recycling and reuse facilities. Mixed loads of construction, demolition and inert materials will be sorted into source separated categories for recycling or reuse with the residuals going to a landfill or other CDI facility. The facility will receive no more than 174 tons per day. The facility is expected to achieve an overall 60% recycling rate with 100% of asphalt and concrete being recycling and 50% of all other materials
being recycled. This facility is expected to become operational in 2015 upon issuance of all applicable permits including a registration tier solid waste facility permit by the state of California and Alameda County LEA.

• **Tom DelConte and Roberto Aguirre** are co-owners/operators of the Vision Recycling Compost Facility located at 30 Greenville Road in the unincorporated area of Livermore. The Vision Recycling Compost facility will be an EA Notification Tier Compost facility. The facility will take green materials from Vision Recycling facilities, including its nearby chip and grind facility, to be composted in an aerated static pile system. Finished compost will be brought back to the chip and grind facility, or one of Vision’s other facilities for sale, or directly to customers for sale. This facility is expected to become operational in 2016 upon issuance of all applicable permits.
<table>
<thead>
<tr>
<th>LEVEL OF GOVERNMENT</th>
<th>AGENCY</th>
<th>PERMIT</th>
</tr>
</thead>
<tbody>
<tr>
<td>LOCAL</td>
<td>o Alameda County and City Planning Depts.(^1)</td>
<td>• CEQA, General Plan conformance, land use permits (conditional use, building, etc.)</td>
</tr>
<tr>
<td></td>
<td>o Local Enforcement Agencies</td>
<td>• Solid Waste Facilities Permit</td>
</tr>
<tr>
<td></td>
<td>o Alameda County Waste Management Authority</td>
<td>• Plan Conformance Determination</td>
</tr>
<tr>
<td></td>
<td>o Airport Land Use Commission</td>
<td>• Plan Consistency Determination</td>
</tr>
<tr>
<td>REGIONAL</td>
<td>o Bay Area Air Quality Management District</td>
<td>• Authority to Construct, Permit to Operate</td>
</tr>
<tr>
<td></td>
<td>o Regional Water Quality Control Board</td>
<td>• National Pollutant Discharge Elimination System Permit, Waste Discharge Requirements, 401 Certification</td>
</tr>
<tr>
<td></td>
<td>o Bay Conservation and Development Commission</td>
<td>• BCDC Permit for projects within the Commission's jurisdiction</td>
</tr>
<tr>
<td>STATE</td>
<td>o California Integrated Waste Management Board</td>
<td>• Solid Waste Facility Permit, Facilities Permit Concurrence, Conformance Determination</td>
</tr>
<tr>
<td></td>
<td>o California Department of Fish and Game</td>
<td>• Streambed Alteration Agreement, Endangered Species Review</td>
</tr>
<tr>
<td>FEDERAL</td>
<td>o U.S. Army Corps of Engineers</td>
<td>• Wetlands Fill Permit (404 Permit), Navigable Waters Permit</td>
</tr>
<tr>
<td></td>
<td>o U.S. Fish and Wildlife Services</td>
<td>• Endangered Species Review</td>
</tr>
<tr>
<td></td>
<td>o U.S. Environmental Protection Agency</td>
<td>• Prevention of Significant Deterioration Permit, Subtitle D Regulations</td>
</tr>
</tbody>
</table>

\(^1\) Alameda County Planning Department for the Altamont and Vasco Road Landfills; City of Fremont for the Tri-Cities Landfill
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 residential recycling services in the City of Oakland. As of July 1, 2015, CWS will provide the entire city with residential recycling services, and will offer rate-regulated commercial recycling services in an open commercial recycling market (i.e., recycler of last resort).

- **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.

- **Recology** Recology’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. As of July 1, 2015, Oakland’s commercial organics will be included in an exclusive franchise held by Waste Management.

- **The Ecology Center** provides residential curbside recycling collection in Berkeley.

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**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 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 four cities and 2 sanitary districts containing about 768,230 population, or 48% 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. Minor amounts of self-haul are also delivered to the Altamont landfill.

The second largest hauler in Alameda County is Republic Services. Republic holds the collection franchise for the Cities of Fremont, Union City, Newark, and Piedmont containing more than 22 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.

The City of Dublin contracts for collection with Amador Valley Industries, (AVI).

Livermore Sanitation Inc. began collecting refuse, recyclables and compostables from within the City of Livermore as of July 1, 2010. Refuse is direct hauled to the Vasco Road Sanitary Landfill and recyclables and compostables are taken to the company's Recyclable Material Transload Facility in the City of Livermore.
Figure 2 - A

SOLID WASTE COLLECTION & HAUL

LEGEND

- City Limits
- Sanitary District Boundaries

- Collection and Landfill Haul by Republic
- Collection and Landfill Haul by City of Berkeley
- Collection and Landfill Haul by ACI
- Collection and Landfill Haul by Pleasanton Garbage Services
- Collection and Landfill Haul by AVI
- Collection and Landfill Haul by LSI
- Collection and Disposal by Waste Management of Alameda County, Inc. (The remainder area*)

* Unincorporated areas outside city and sanitary district boundaries do not contract for refuse collection or hauling

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
SOLID WASTE TRANSFER & DISPOSAL

Figure 2 - B
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 only franchises for a small part of the unincorporated area, 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 waste disposal for the various jurisdictions for the years 1990, 2000, and 2008 and 2013.

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

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Alameda</td>
<td>31,806</td>
<td>64,577</td>
<td>96,383</td>
<td>21,434</td>
<td>26,987</td>
<td>48,421</td>
<td>15,601</td>
<td>27,447</td>
<td>43,048</td>
<td>16,156</td>
<td>18,965</td>
<td>35,121</td>
</tr>
<tr>
<td>Albany</td>
<td>7,024</td>
<td>11,459</td>
<td>18,483</td>
<td>4,749</td>
<td>5,153</td>
<td>9,902</td>
<td>2,747</td>
<td>3,221</td>
<td>5,968</td>
<td>2,956</td>
<td>3,471</td>
<td>6,427</td>
</tr>
<tr>
<td>Berkeley</td>
<td>33,094</td>
<td>67,191</td>
<td>100,285</td>
<td>35,904</td>
<td>56,898</td>
<td>92,802</td>
<td>20,163</td>
<td>70,845</td>
<td>91,008</td>
<td>13,345</td>
<td>47,314</td>
<td>60,659</td>
</tr>
<tr>
<td>Castro Valley S. D.</td>
<td>19,416</td>
<td>36,059</td>
<td>55,475</td>
<td>12,618</td>
<td>18,318</td>
<td>30,936</td>
<td>15,642</td>
<td>11,923</td>
<td>27,566</td>
<td>10,722</td>
<td>8,088</td>
<td>18,810</td>
</tr>
<tr>
<td>Dublin</td>
<td>7,924</td>
<td>33,783</td>
<td>41,707</td>
<td>8,520</td>
<td>27,260</td>
<td>35,780</td>
<td>9,382</td>
<td>22,241</td>
<td>31,623</td>
<td>8,376</td>
<td>19,543</td>
<td>27,919</td>
</tr>
<tr>
<td>Emeryville</td>
<td>2,682</td>
<td>24,134</td>
<td>26,816</td>
<td>1,987</td>
<td>22,164</td>
<td>24,151</td>
<td>2,957</td>
<td>11,296</td>
<td>14,253</td>
<td>3,774</td>
<td>14,199</td>
<td>17,973</td>
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<tr>
<td>Fremont</td>
<td>77,037</td>
<td>208,287</td>
<td>285,324</td>
<td>52,013</td>
<td>147,909</td>
<td>199,922</td>
<td>54,929</td>
<td>114,615</td>
<td>169,544</td>
<td>44,217</td>
<td>93,962</td>
<td>138,179</td>
</tr>
<tr>
<td>Hayward</td>
<td>47,484</td>
<td>168,353</td>
<td>215,837</td>
<td>37,393</td>
<td>141,125</td>
<td>178,518</td>
<td>42,812</td>
<td>78,283</td>
<td>121,095</td>
<td>35,615</td>
<td>66,142</td>
<td>101,757</td>
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<tr>
<td>Livermore</td>
<td>23,380</td>
<td>57,241</td>
<td>80,621</td>
<td>30,694</td>
<td>95,489</td>
<td>126,183</td>
<td>35,957</td>
<td>66,333</td>
<td>102,290</td>
<td>20,061</td>
<td>37,256</td>
<td>57,317</td>
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<td>Newark</td>
<td>15,740</td>
<td>42,558</td>
<td>58,298</td>
<td>9,975</td>
<td>42,583</td>
<td>52,558</td>
<td>11,486</td>
<td>24,659</td>
<td>36,145</td>
<td>11,485</td>
<td>24,406</td>
<td>35,891</td>
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<tr>
<td>Oakland</td>
<td>163,323</td>
<td>419,975</td>
<td>583,298</td>
<td>137,493</td>
<td>254,963</td>
<td>392,456</td>
<td>107,176</td>
<td>161,633</td>
<td>268,809</td>
<td>112,456</td>
<td>168,683</td>
<td>281,139</td>
</tr>
<tr>
<td>Oro Loma S. D.</td>
<td>27,490</td>
<td>70,688</td>
<td>98,178</td>
<td>19,517</td>
<td>18,241</td>
<td>37,758</td>
<td>21,879</td>
<td>12,600</td>
<td>34,479</td>
<td>17,601</td>
<td>10,337</td>
<td>27,938</td>
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<tr>
<td>Piedmont</td>
<td>3,889</td>
<td>5,597</td>
<td>9,486</td>
<td>3,703</td>
<td>1,708</td>
<td>5,411</td>
<td>2,534</td>
<td>1,211</td>
<td>3,745</td>
<td>2,247</td>
<td>1,057</td>
<td>3,304</td>
</tr>
<tr>
<td>Pleasanton</td>
<td>24,309</td>
<td>81,383</td>
<td>105,692</td>
<td>27,798</td>
<td>97,407</td>
<td>125,205</td>
<td>21,519</td>
<td>70,418</td>
<td>91,937</td>
<td>18,557</td>
<td>62,125</td>
<td>80,682</td>
</tr>
<tr>
<td>San Leandro</td>
<td>49,274</td>
<td>91,508</td>
<td>140,782</td>
<td>34,257</td>
<td>92,149</td>
<td>126,406</td>
<td>26,457</td>
<td>61,203</td>
<td>87,660</td>
<td>34,566</td>
<td>80,654</td>
<td>115,220</td>
</tr>
<tr>
<td>Union City</td>
<td>22,510</td>
<td>50,103</td>
<td>72,613</td>
<td>16,060</td>
<td>39,221</td>
<td>55,281</td>
<td>15,795</td>
<td>32,031</td>
<td>47,826</td>
<td>12,196</td>
<td>24,763</td>
<td>36,959</td>
</tr>
<tr>
<td>Uninc. Alameda</td>
<td>3,585</td>
<td>11,352</td>
<td>14,937</td>
<td>1,460</td>
<td>9,533</td>
<td>10,993</td>
<td>125</td>
<td>9990</td>
<td>10,115</td>
<td>245</td>
<td>24,242</td>
<td>24,487</td>
</tr>
<tr>
<td>County Total</td>
<td>559,967</td>
<td>1,444,248</td>
<td>2,004,215</td>
<td>455,575</td>
<td>1,097,108</td>
<td>1,552,683</td>
<td>407,161</td>
<td>779,946</td>
<td>1,187,111</td>
<td>364,575</td>
<td>705,207</td>
<td>1,069,782</td>
</tr>
</tbody>
</table>
## Table 2-6

Service Provider Contract Information

<table>
<thead>
<tr>
<th>Jurisdiction</th>
<th>Service Provider</th>
<th>Services</th>
<th>Year Executed</th>
<th>Expiration Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alameda</td>
<td>ACI</td>
<td>Solid waste, recycling and plant debris &amp; food</td>
<td>2002</td>
<td>September 30, 2022</td>
</tr>
<tr>
<td>Albany</td>
<td>WMAC</td>
<td>Solid waste, recycling and plant debris &amp; food</td>
<td>2011</td>
<td>October 31, 2021</td>
</tr>
<tr>
<td>Berkeley</td>
<td>Ecology Center</td>
<td>Recycling</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>City of Berkeley</td>
<td>Solid Waste and plant debris &amp; food</td>
<td></td>
<td>June 30, 2020</td>
</tr>
<tr>
<td>Castro Valley</td>
<td>WMAC</td>
<td>Solid waste, recycling, and plant debris &amp; food</td>
<td>2009</td>
<td>April 30, 2019</td>
</tr>
<tr>
<td>Sanitary District</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dublin</td>
<td>AVI</td>
<td>Solid waste, recycling, and plant debris &amp; food</td>
<td>2005</td>
<td>June 30, 2020</td>
</tr>
<tr>
<td>Emeryville</td>
<td>WMAC</td>
<td>Solid waste, recycling and plant debris &amp; food</td>
<td>2011</td>
<td>December 31, 2020</td>
</tr>
<tr>
<td>Fremont</td>
<td>Republic</td>
<td>Solid waste, recycling, and plant debris &amp; food</td>
<td>2003</td>
<td>July 1, 2018</td>
</tr>
<tr>
<td>Hayward</td>
<td>WMAC</td>
<td>Solid waste and plant debris &amp; food</td>
<td>2015</td>
<td>February 28, 2022</td>
</tr>
<tr>
<td></td>
<td>Tri-CED</td>
<td>Recycling, plant debris &amp; food</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Livermore</td>
<td>Livermore Sanitation Inc.</td>
<td>Solid waste, recycling, plant debris &amp; food</td>
<td>2010</td>
<td>June 30, 2020</td>
</tr>
<tr>
<td>Newark</td>
<td>Republic</td>
<td>Solid waste, recycling and plant debris &amp; food</td>
<td>2013</td>
<td>May 31, 2023</td>
</tr>
<tr>
<td>Oakland</td>
<td>WMAC</td>
<td>Solid waste, and plant debris &amp; food</td>
<td>2015</td>
<td>June 30, 2025</td>
</tr>
<tr>
<td></td>
<td>CWS</td>
<td>Recycling</td>
<td>2015</td>
<td>June 30, 2025</td>
</tr>
<tr>
<td>Oro Loma Sanitary</td>
<td>WMAC</td>
<td>Solid waste, recycling, and plant debris &amp; food</td>
<td>1997</td>
<td>August 31, 2024</td>
</tr>
<tr>
<td>District</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jurisdiction</td>
<td>Service Provider</td>
<td>Services</td>
<td>Year Executed</td>
<td>Expiration Date</td>
</tr>
<tr>
<td>-----------------</td>
<td>------------------</td>
<td>------------------------------------------------------------</td>
<td>---------------</td>
<td>-----------------------</td>
</tr>
<tr>
<td>Piedmont</td>
<td>Republic Services</td>
<td>Solid waste, recycling and plant debris &amp; food</td>
<td>2008</td>
<td>June 30, 2018</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(Solid waste)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pleasanton</td>
<td>PGS</td>
<td>Solid waste, recycling and plant debris &amp; food</td>
<td>1989</td>
<td>July 30, 2019</td>
</tr>
<tr>
<td>San Leandro</td>
<td>ACI</td>
<td>Solid waste, recycling, and plant debris &amp; food</td>
<td>2000</td>
<td>January 31, 2025</td>
</tr>
<tr>
<td>Union City</td>
<td>Republic</td>
<td>Solid Waste, commercial recycling (bin), plant debris and food</td>
<td>2005</td>
<td>June 30, 2015</td>
</tr>
<tr>
<td></td>
<td>Tri-CED</td>
<td>Recycling recycling, commercial recycling (cart) and residential plant debris &amp; food (as a sub to Republic)</td>
<td>2004</td>
<td>May 31, 2015</td>
</tr>
</tbody>
</table>
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 2015, seven transfer stations will operate in Alameda County: the Davis Street Transfer Station in San Leandro, the ACI Transfer/Processing Facility in San Leandro, the Berkeley Transfer Station in Berkeley, the Pleasanton Transfer Station in Pleasanton, the BLT Transfer Station in Fremont, the Livermore Sanitation Inc. direct transfer station in the City of Livermore, and the Hayward Transfer Station. In 2015, the Recology East Bay Organics Pre-Processing Facility will also likely be operational. 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. 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. The Recology East Bay Organics Pre-Processing Facility is also expected to use long haul trailers to transport solid waste residuals that cannot be digested after preprocessing to landfills or Material Recovery Facilities, as needed.
## TABLE 2-7

ALAMEDA COUNTY TRANSFER STATIONS

<table>
<thead>
<tr>
<th>TRANSFER STATION(^1)</th>
<th>OWNER/OPERATOR</th>
<th>WASTESHEDS</th>
<th>DISPOSAL TONNAGE TOTAL TPY/TPD-(^2)</th>
<th>SITE ACREAGE</th>
<th>DESIGN / PERMITTED CAPACITY(^3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Davis Street</td>
<td>Waste Management of Alameda County [WMAC]</td>
<td>Not Restricted</td>
<td>527,108/2,027 TPD-5</td>
<td>53</td>
<td>9,600 TPD/5,600 TPD</td>
</tr>
<tr>
<td>Berkeley</td>
<td>City of Berkeley</td>
<td>Berkeley</td>
<td>51,237/164 AVG</td>
<td>4.6</td>
<td>560 TPD/400 TPD</td>
</tr>
<tr>
<td>Pleasanton</td>
<td>Pleasanton Garbage Service</td>
<td>Pleasanton</td>
<td>115,737/445 TPD-5</td>
<td>7.6</td>
<td>720 TPD/350 TPD</td>
</tr>
<tr>
<td>ACI San Leandro</td>
<td>Alameda County Industries</td>
<td>MSW: City of San Leandro Recyclables: Alameda County</td>
<td>Any combination of MSW, C&amp;D or compostables or other solid waste not to exceed 280 TPD by direct transfer operations and an unrestricted amount of recyclables as long as total site capacity of 412 TPD is not exceeded</td>
<td>2.17</td>
<td>592 TPD/412 TPD</td>
</tr>
</tbody>
</table>

---

\(^1\) The Alameda County Department of Environmental Health is the permitting and regulatory agency, for the ACI, Davis Street, Pleasanton, and Fremont 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 2013 reported.

\(^3\) Per current Solid Waste Facilities Permit [SWFP].
The Alameda County Department of Environmental Health is the permitting and regulatory agency, for the ACI, Davis Street, Pleasanton, and Fremont Transfer Stations, and Recology facility. Cal Recycle is the permitting and regulatory agency for the Berkeley Transfer Station.

<table>
<thead>
<tr>
<th>TRANSFER STATION1</th>
<th>OWNER/OPERATOR</th>
<th>WASTESHEDS</th>
<th>DISPOSAL TONNAGE TOTAL TPY/TPD-5</th>
<th>SITE ACREAGE</th>
<th>DESIGN / PERMITTED CAPACITY2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fremont Transfer Station/MRF</td>
<td>BLT</td>
<td>Fremont/Newark/Union City</td>
<td>121,734/468 TPD-5</td>
<td>13.5</td>
<td>2400 TPD</td>
</tr>
<tr>
<td>Recology East Bay Organics Pre-Processing Facility</td>
<td>Recology East Bay Organics/Recology East Bay</td>
<td>Alameda County, Contra Costa, San Francisco County, Marin, Napa, San Mateo, Santa Clara, Solano and Sonoma Counties</td>
<td>156,000/600TPD-5 throughput expected</td>
<td>1.43</td>
<td>600 TPD/600 TPD</td>
</tr>
<tr>
<td>Livermore Sanitation Recyclable Material Transload Facility</td>
<td>Livermore Sanitation Inc.</td>
<td>Recyclables &amp; compostables from City of Livermore and from portions of unincorporated Alameda County served by LSI route trucks. No public self-haul allowed</td>
<td>385 TPD of recyclables and compostables by direct transfer operations</td>
<td>4.29</td>
<td>385 TPD/385 TPD</td>
</tr>
<tr>
<td>Hayward Transfer Station</td>
<td>Todd Fitch &amp; Mike Tejero/Hayward Transfer Station, LLC</td>
<td>Alameda County</td>
<td>62,988/174 TPD-5 throughput expected</td>
<td>3.4 (with 2.4 acres devoted to this operation</td>
<td>174 TPD/174 TPD</td>
</tr>
</tbody>
</table>

1 The Alameda County Department of Environmental Health is the permitting and regulatory agency, for the ACI, Davis Street, Pleasanton, and Fremont Transfer Stations, and Recology facility. Cal Recycle is the permitting and regulatory agency for the Berkeley Transfer Station.

2 Per current Solid Waste Facilities Permit [SWFP].
a) Davis Street Transfer Station and Recycling Center and Organics Facilities

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 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 2013, the Station output was 369,538 tons of municipal solid waste, and 157,570 tons of organics which is an average of 2,027 TPD-5 (tons per day with 5-day per week basis).

Davis Street Transfer Station operates 6 days per week, 24 hours/day, and is open to the public M-F from 7:00 a.m. to 5:00 p.m. and Saturday, from 8:00 am to 4:00 pm. 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). 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 2,027 tons is well below the permit limit of 5,600 tons per day. Recovery operations at the Davis Street Transfer Station include: 1) receiving, and haulout of source-separated green waste from curbside programs and self-haul loads; and 2) processing of curbside recyclables and 3) receiving, consolidation and load-out of residential organics (green waste, food scraps and food-contaminated paper) and commercial organics (food scraps and food-contaminated paper) to composting facilities. In 2013, the Station had an output of 157,570 tons of organic waste and 147,340 tons of curbside recyclables. Tons are recovered from clean loads of wood, dirt, and concrete. A MRF line began operation in August 2002, targeting recyclables-rich debris box and self haul loads, including C&D. These MRF processes approximately 183,000 tons per year of recyclables.

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 Cal Recycle and issued by the Alameda County LEA. According to the Alameda County LEA, there have been no major permit violations at the facility.
In 2017 and 2018, the Davis Street Transfer Station will undergo major changes to add three organics facilities to the site. The organics facilities will operate under an updated solid waste facility permit to be issued by CalRecycle and enforced by the Alameda County LEA. Existing Davis Street Transfer Station property that was previously used to store containers, outdoor green waste processing and parking will be converted into an approximately 260,000 square foot covered organics recovery facility.

These new operations will take place within the currently permitted 5,600 ton per day solid waste facility permit. The planned organics facilities include the following:

- Organics Materials Recovery Facility ("OMRF") a 1.4-acre indoor facility,
- In-vessel 3.0-acre Organics Materials Composting Facility ("OMCF"), and
- Organics Digester Facility ("Digester"), a 1.5-acre facility which includes energy production.

The OMRF will include construction of an approximately 62,000 square foot building to house materials processing equipment designed to remove organics and recyclable commodities from the waste materials that currently come to Davis Street for transfer and disposal. The OMRF is designed to process 100 tons per hour of municipal solid waste ("MSW"). Initially, the OMRF will process MSW generated by the City of Oakland in the amount of 150,000 tons per year ("TPY") running on a single shift per day; however the throughput may increase to an annual tonnage of 300,000 TPY depending on demand from other WMAC customers for processing of MSW.

The OMRF is anticipated to result in diversion rates of up to 61%. From the initial 150,000 TPY of the City of Oakland MSW to be processed, WMAC anticipates recovering 60,000 TPY of organics and 31,000 TPY of other recyclable commodities. The organic materials recovered from the OMRF will be directly conveyed to the adjacent Composting and Digester facility buildings for processing. The other recovered commodities, including aluminum, metals, plastics, and glass, will be shipped off-site for recycling along with similar materials recovered from the other various Materials Recovery Facilities located on the Davis Street property. Building permits have been obtained and the facility is planned to be fully-operational by the first quarter of 2018.

The Composting and Digester facilities will be constructed in buildings directly adjacent to the OMRF. The combined daily peak capacity of the Composting and Digester facilities will be 1,000 tons per day, with an estimated maximum annual throughput of 205,000 TPY. The majority of organic feedstock going into the Composting and Digester facilities will be from the OMRF; however as space allows this may also be augmented by other source separated food and green waste materials which are currently transferred to other composting facilities. These facilities are in the processes of obtaining all operational permits and construction is planned to begin summer of 2017, with operations beginning in late 2018.

The Composting facility will be an approximately 135,000 square foot fully-enclosed operation. The building will house the entire composting process, and will be operated under a negative air system with exhaust vented through a biofilter to control potential odors and mitigate
emissions from the composting process. Annual average expected capacity of the Composting facility is up to 165,000 TPY. Actual annual capacity of the facility will be determined by required processing and retention times for the organics, which can vary depending on feedstock characteristics. It is currently estimated to take 21 days for the organic materials to move through the composting facility process. The facility will consist of composting lanes which will be turned mechanically to allow for adequate air flow through the compost piles and aerobic decomposition of the organic materials. After the 21 day retention time, the active phase of the composting process will essentially be complete and the compost material will have finished the process to further reduce pathogens (“PFRP”). The output of the Composting facility may be sold to end-users and applied as a soil amendment immediately, or may also be taken to an off-site composting facility to be blended with other compost products.

The Digester facility will be an anaerobic process which will occur in an approximately 65,000 square foot building. This facility will be capable of processing up to an additional 40,000 TPY of organic materials including the organic fraction from the OMRF, green waste, and source separated food waste. The digester facility will be fully-enclosed allowing for the collection of biogas from the digestion process, and is designed to process the organic fraction of the waste over an 18 to 21 day period, and/or the organic fraction of the waste will be washed through a hydro pulping process to produce 4 streams: 1) organic slurry for the anaerobic digestion process, 2) plastic film/rigid plastics waste, 3) grit waste and 4) heavy fraction waste. Plastic waste will be dried to remove water weight and combined with grit/heavy waste for disposal at the Altamont landfill. The Organic slurry will be dewatered to create a solids feedstock for digesters and a liquid feedstock for high rate up-flow digestion. Digestate produced from digesters will be dewatered to generate approximately 25% solids material to be used by either WMAC as a feedstock for compost or as base for other value added products. The digestate, if used as a compost feedstock, will be loaded into transfer trucks for delivery to an off-site composting facility for further processing. The gas will be either utilized for on-site production of renewable energy to power the Davis Street operations, or utilized as vehicle-grade renewable natural gas to power WMAC’s waste hauling fleet.

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 51,237 tons of MSW (164TPD-5); 35,939 tons of organics (114 TPD-5), and 32,900 tons were diverted for reuse or recycling in 2013. Reuse & Recycling tons are comprised of salvage, curbside & drop-off recycling, and C&D diversion. 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 300 to 400 vehicles use the facility on a daily basis.

Operations include unloading, selected salvaging and recycling, and loading residual waste into transfer trailers. Green wastes, residential and commercial food waste are also loaded separately into transfer trailers for composting off-site C&D wastes are accepted, and
transferred to Davis Street for C&D processing. Under applicable permits, hazardous materials cannot be delivered to the transfer station. The facility does, however, have a motor oil recycling depot and accepts treated wood waste, electronics and freon containing appliances. All non-marketable and non-recoverable residues are hauled by transfer truck to Altamont Landfill. 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 Community Conservation Center which operates a recycling drop-off/buy-back center and dual stream recycling MRF. CCC also offers a universal waste collection depot for batteries and fluorescent bulbs.

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

Cal Recycle, formerly the California Integrated Waste Management Board, is the local enforcement agency for the transfer station. Cal Recycle 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. A sister company to PGS, Amador Valley Industries (AVI), serves the City of Dublin. AVI delivers loads of source-separated recyclables and organics to the Pleasanton Transfer Station for consolidation and delivery to processors.

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. The city switched to a 3 sort system for garbage, recyclables and organics. 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 75,095 tons of MSW (289 TPD-5), 25,343 tons of green waste (97 TPD-5), 29 tons of wood, and 30 tons of recyclables in 2013.

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) ACI Transfer/Processing Facility

The Alameda County Industries’ (ACI) Transfer/Processing facility located at 610 Aladdin Avenue in San Leandro operates under a full solid waste facility permit issued for 412 tons per day (TPD) total site capacity. The ACI Transfer/Processing Facility operates under the
following limitations: direct transfer operations for any combination of MSW, C&D, compostables or other solid waste not to exceed 280 TPD; and, an unrestricted amount of recyclables processed through the Material Recovery Facility, provided the total site capacity maximum of 412 TPD is not exceeded. The Transfer/Processing Facility only receives MSW from within the City of San Leandro service area franchised in 2007 to ACI.

The Material Recovery Facility processes recyclables from San Leandro, Alameda and other jurisdictions. At the recommendation of the County Environmental Health Department, the Full Solid Waste Facility Permit was sought in 2007 to combine and expand the Direct Transfer Facility with the previously exempt Material Recovery Facility. The facility recycling rate is projected to be 57% for the 412 TPD. As additional food waste is collected in place of MSW, the recycling rate is expected to increase to almost 70%.

Collection vehicles using the facility include commercial front-loader trucks and roll-off bin collection trucks and side loaders used for residential collection. The solid waste is directly transferred from collection vehicles to a specially designed transfer trailer, which has the capacity to carry 19-20 tons per load. Direct transfer operations do not handle, separate, or otherwise process the incoming solid waste and no waste is stored at the facility for more than an 8-hour period. There is no overnight storage of loaded trailers. The solid waste is transferred only one time from the collection vehicle to the trailer; the waste does not touch the ground nor is it outside the confines of a container or vehicle before, during, or after the transfer. There is no acceptance of self-hauled MSW nor recyclables from the public.

e) Fremont Transfer Station/Materials Recovery Facility

The Fremont Transfer Station/Materials Recovery Facility (TS/MRF) is located at 41149 Boyce Road, Fremont on a 13.5 acre parcel in an area zoned general industrial. The TS/MRF was built to provide the City of Fremont with a long term municipal solid waste disposal/recycling option given the impending closure of the Tri-Cities Recycling and Disposal Facility (Tri-Cities landfill). The TS/MRF is sized to handle waste and recyclables from Fremont, Newark and Union City. The facility also accepts recyclables from outside the Tri-Cities area (primarily from within Alameda County) and self-haul waste from the Tri-Cities only. The facility is permitted to handle 2,400 tons per day of waste and recyclables (estimated waste is expected to grow to a possible 1,367 in 2020).

Operations of the transfer station include accepting MSW collected from the tri-Cities, consolidating it into long haul trailers and transporting it to the Altamont landfill. Since the Tri-Cities landfill closed in 2012, these wastes have been hauled to the Altamont landfill. Operations of the materials recovery facility include accepting both recyclables and loads of MSW containing high percentages of recyclables, separating them into recyclable groupings, consolidating them for efficient transport and transporting them to secondary materials processing facilities.

Recovery operations at the MRF include the following features:

- Buy back center
- Household hazardous waste turn in
• C&D separation and pre-processing (to meet requirements of off-site processors)
• Wood and green waste consolidation for off-site composting
• Recyclables segregation and preparation for market
• Educational center

The City of Fremont is contractually requiring BLT to recycle 12 percent of incoming waste from Fremont. This 12 percent does not apply to materials presently being diverted through city directed programs such as residential curbside recyclables and residential compostable organics collection, nor does it include materials from Newark or Union City. The intent is to achieve this requirement through increased diversion of recyclable rich commercial and industrial loads. BLT has identified a target range of 15 to 30 percent overall diversion by the TS/MRF based on other similar facilities they operate. Recovery operations at the TS/MRF are expected to help Fremont achieve its 75 percent diversion goal.

f) Livermore Sanitation Recyclable Material Transload Facility
Livermore Sanitation Inc. built a Recyclable Material Transload Facility located at 7050 National Drive in the City of Livermore on a 4.29 acre site. The enclosed direct transfer station has a registration solid waste facility permit issued by the LEA. The Recyclable Material Transload Facility operates as a direct transfer operation and the City of Livermore has granted entitlements for the facility to handle up to 385 TPD of recyclable and compostable materials. The facility will be used by Livermore Sanitation Inc. to receive recyclables and compostables collected under contract from within the City of Livermore and from portions of unincorporated Alameda County served by LSI route trucks. No MSW may be transloaded/transferred at this location.

Livermore Sanitation Inc. has a contract with the City of Livermore to collect refuse, compostables and recyclables from Livermore residents and businesses. The term of the contract is July 1, 2010 through June 30, 2020. This facility is designed to handle only recyclables and compostables from within the City of Livermore and from portions of unincorporated Alameda County served by LSI route trucks. MSW collected by LSI will be hauled directly to Vasco Road Landfill and will not be delivered to the LSI facility in Livermore.

Direct transfer operations do not handle, separate, or otherwise process the incoming recyclables/compostables, and no materials are stored at the facility for more than an 8-hour period. There is no overnight storage of loaded trailers. The recyclables/compostables are transferred only one time from the collection vehicle to the trailer; the materials do not touch the ground and are not outside the confines of a container or vehicle before, during, or after the transfer. No self-haul materials are accepted at this site.

The Livermore Sanitation Recyclable Material Transload Facility is compatible with adjacent zoning and land-uses, which consist of general industrial uses, including manufacturing and industrial uses.

The facility became operational in May, 2010.
g) Recology East Bay Organics Pre-Processing Facility.

Recology East Bay Organics is building an organics pre-processing transfer station facility located at 2020 Wake Avenue in the City of Oakland on a 63.9 acre site. The building itself will take up 1.43 acres. This will be an enclosed transfer station with a scale house where incoming and outgoing materials will be weighed. The facility is designed to take organic rich materials, such as food waste, plant debris, and organic rich waste from the residential and commercial sector and remove non-organic contaminants. The technology inside the pre-processing transfer facility has not been finalized but equipment may include a sort line, hand sort, or other technology to remove contaminants included in the materials.

The processed materials will be sent via pipe to EBMUD’s nearby anaerobic digester for energy generation. The facility will accept organic-rich materials from the Bay Area region, primarily Alameda County, but the facility will also accept materials from other nearby counties including Contra Costa, San Francisco, Marin, Napa, San Mateo, Santa Clara, Solano, and Sonoma Counties.

The materials will be collected and delivered to the facility by Recology and possibly other haulers. The facility expects to receive no more than 600 tons per day of material. Any solid waste residuals will be hauled via long haul trailer to a landfill or Material Recovery Facility. The landfill used will depend upon the source of incoming material, with the expectation that Alameda County generated materials will go to Alameda County landfills. The facility will accept loads from Recology and other haulers. This facility is expected to be operational in 2015 after receiving all applicable permits.

h) Hayward Transfer Station

Hayward Transfer Station. The Hayward Transfer Station is a medium volume construction, demolition, and inert debris processing facility located at 3458 Enterprise Avenue in Hayward on a 3 acre site, 2.5 of which is dedicated to this operation. The transfer station is co-located with other commercial activities at this site, including a contractor’s storage yard, waste cooking, oil recovery operation, portable toilet rentals, and temporary fencing operation. The facility is compatible with adjacent land uses, which are industrial.

The facility will receive self-hauled construction, demolition, and inert materials. Only construction, demolition and inert materials will be accepted. The site will include a commercial scale, a large bunker for C&D materials, and several small bunkers for clean source separated C&D materials, as well as a storage area for drop boxes, vehicles and equipment. The facility will offer discounts for the public to bring in clean source separated C&D materials. All incoming loads will be weighed on a commercial scale. Source separated C&D materials will be hauled in roll off trucks, demolition trucks or transfer trailers to various businesses for recycling or reuse. Mixed C&D residuals, after sorting and segregation for recyclables, will be hauled to landfills or CDI facilities. The facility also provides debris box rental and collection service for C&D materials in cities that allow non-franchised haulers to do so (several cities in Alameda County, including Hayward, only allow the franchised ahuler to provide this service).
The facility is required to recycle all incoming concrete and asphalt and 50% of remaining materials. This will give the facility an overall recycling rate of 60%.

The facility expects to receive no more than 174 tons per day of material. This facility is expected to be operational in 2015 after receiving all applicable permits.
Davis Street Transfer Station

Figure 2-C
Recycling Facilities and Transfer Station Facilities, City of Berkeley

Figure 2-D

Berkeley Transfer Station
Figure 2-E
Pleasanton Transfer Station

PLEASANTON GARBAGE SERVICE, INC.
TRANSFER STATION
PLEASANTON, CA

(1) Transfer Station, Material Recovery Facility
   Permitted 750 TDP
(2) Truck Repair Facility
(3) Office
(4) Truck Wash
(5) Scale House
(6) Baler, Material Storage
(7) Woodgrinding, Chipper Operation
(8) Mulch Storage
3. **Compost Facilities**

**Vision Compost Facility**

Tom DelConte and Roberto Aguirre are co-owners/operators of the Vision Recycling Compost Facility located at 30 Greenville Road in the unincorporated area of Livermore. The Vision Recycling Compost facility will be an EA Notification Tier Compost facility. The facility will take green materials from Vision Recycling facilities, including its nearby chip and grind facility, to be composted in an aerated static pile system. Finished compost will be brought back to the chip and grind facility, or one of Vision’s other facilities for sale, or directly to customers for sale. This facility is expected to become operational in 2016 upon issuance of all applicable permits.

**Altamont Compost Facility**

In 2017, Alameda County’s second compost facility will be located at 10840 Altamont Pass Road in the unincorporated area of Livermore on 90 acres dedicated to the organics facility. The facility will operate under a Compost Materials Handling Facility Permit enforced by the Alameda County LEA. The proposed project will consist of up to 90 acres of organics management facilities with a maximum total organic feedstock receipts of 750 tons per day. The facility includes covered aerated static pile composting, anaerobic digestion, potential pre-processing for the organic material feedstocks as necessary, and materials resale. The project will be constructed in phases, with the initial phase to allow 500 tpd of composting in a covered aerated static pile system. Organics feedstocks may include green and wood waste, commercial and residential food waste, agricultural materials, the organic fraction from mixed waste MRFs, and digestate from other anaerobic organics processing which requires further composting to mature into a stable compost product. These feedstocks will come from a variety of sources including direct haul from nearby cities; however the majority of feedstocks are anticipated to come from the Davis Street Transfer Station in San Leandro. Davis Street organics are primarily generated in Alameda County and consist of both commercial and residential organics, including residential curbside collection of comingled green and food waste.

The initial phase of the project will be a 500 tons per day Covered Aerated Static Pile (“CASP”) system on an approximately 10-acre pad. The piles will be constructed with pipes and blowers which deliver air to the piles while in their active phase of composting (approximately first 4 weeks). The piles will be covered with materials such as stabilized compost to control potential air emissions from the piles. After the active stage of the composting is complete, the compost will be moved to curing piles for an additional 2-4 months minimum while the compost stabilizes and matures. The curing piles will utilize approximately 30 acres of organics management area. The final stage is screening of the compost to meet the size specifications of ALRRF’s customers and to remove any remaining contaminants from the finished product. Finished compost storage and sales may occur in the curing area so that the product need not be relocated prior to sale, on inactive areas of the landfill footprint, or in bunkers or piles alongside mulch and other products which are currently being sold at the site.

Construction of the initial phase of the proposed project is anticipated to begin in the spring of 2017, after all agency permits are obtained. The facility will operate 24 hours a day, 7 days a week, and will receive waste materials consistent with the landfill operating hours, which are typically Monday through Friday, however waste materials may be received 7 days per week as necessary.
The subsequent phase of the project will include up to another 250 tons per day of organics management, planned to be processed in an anaerobic digestion system, if the technology is proven effective and all applicable permits are received. Applications for this phase of the project have not yet been submitted to the required permitting agencies, and moving forward with this aspect of the project will be determined after the construction and operation of the initial phase is completed.

**Davis Street Organics Facilities**

See description of Organics facilities including Davis Street Compost Facility in Section 2a, Transfer Stations.

**4. 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 two operating landfills in Alameda County: Altamont Landfill and Vasco Road Landfill. 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.

Some wastes generated in Alameda County flow to out-of-county landfills. The most commonly used landfills outside the county are Potrero Hills and Newby Island, followed by Keller Canyon in Contra Costa County and Forward Inc in San Joaquin County.

A summary description of key operating characteristics of the two Alameda County disposal facilities is contained in Table 2-8. The tri cities landfill closed in 2012. A location map of the two East County landfills and the ACWMA Integrated Waste Management Facility site is contained in Figure 2-F. 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 BLT, 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. Vasco and Altamont 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 does Vasco Road landfill.

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 from 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.
<table>
<thead>
<tr>
<th>LANDFILL</th>
<th>OWNER/OPERATOR</th>
<th>WASTE SOURCES</th>
<th>SITE AREA [ACRES]</th>
<th>PERMITTED LANDFILL AREA [ACRES]</th>
<th>STATE CLASSIFICATION ¹</th>
<th>MAXIMUM PERMITTED QUANTITY TPD-5 ²</th>
<th>2007 QUANTITY RECEIVED TPY/TPD-5</th>
<th>2013 QUANTITY RECEIVED TPY/TPD-5</th>
<th>REMAINING CAPACITY in Millions Tons ³</th>
<th>EXPECTED CLOSURE DATE ⁴</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tri-Cities</td>
<td>Waste Management Inc. - WMAC</td>
<td>Fremont, Newark, Union City</td>
<td>378</td>
<td>108</td>
<td>III</td>
<td>2,000</td>
<td>265,015</td>
<td>1019</td>
<td>None</td>
<td>2012</td>
</tr>
<tr>
<td>Altamont</td>
<td>Waste Management of Alameda County - WMAC</td>
<td>Dublin, Davis St. Trans. Sta., All Alameda County Jurisdictions, San Francisco, Brentwood, San Ramon, as described in Res. #2000-10</td>
<td>2,170</td>
<td>472</td>
<td>II</td>
<td>87.1 million tons 7,000 TPD/1,600,000 TPY</td>
<td>1,294,830</td>
<td>4,980</td>
<td>1,172,961 4,511</td>
<td>40 2037</td>
</tr>
<tr>
<td>Vasco Rd</td>
<td>Republic Services</td>
<td>All Alameda County Jurisdictions Berkeley Transfer Station, Livermore, Pleasanton Transfer Station, Dublin, San Ramon, Brentwood</td>
<td>644</td>
<td>246</td>
<td>III</td>
<td>2,518</td>
<td>533,185</td>
<td>2050</td>
<td>230,154 885</td>
<td>5.6 2022</td>
</tr>
</tbody>
</table>

¹ State Water Resources Control Board Classification  
² LEA Facility Permit/Facility Operator  
³ Approximate remaining refuse capacity as of 20013 as reported by operator.  
⁴ Varies dependent upon rate of fill in given year. Based on end-of-year remaining capacity reported by landfill operator for given year.
a) Vasco Road 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.


The Landfill currently accepts franchised municipal solid waste from the cities of Pleasanton, Livermore, and San Leandro 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.

In 2013, Vasco Road received an estimated 496,897 tons. Of this amount, approximately 230,155 represented waste disposal and the remainder are materials used for alternative daily cover (113,041 tons), other beneficial reuse (42,163 tons) and soils (111,537 tons). Approximately 80 percent of this flow is from Alameda County.

As of January 2013, Vasco Road reported remaining capacity for about 5.6 million tons of waste. The estimated closure year for Vasco Road is 2022.

b) 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 twelve Alameda County jurisdictions (Albany, Berkeley, Emeryville, Oakland, Alameda, Castro Valley, Hayward, Dublin, Fremont, Newark, Union City, and the Oro Loma Sanitary District) as well as import waste from the City and County of San Francisco (15 million tons, starting 1988) and San Ramon. The Cities of Fremont, Newark and Union City began hauling waste from the Fremont transfer station/MRF to Altamont in 2010.

In 2013, Altamont Landfill received an estimated 1.5 million tons of waste. Of this amount, approximately 1.2 million tons represent waste disposal and the remainder are materials recovered for uses on site, such as construction and demolition materials (44,982 tons), special waste (35,083 tons, asbestos, sludge and treated waste) and -265,803 tons of auto shredder fluff and contaminated soils used as covers. 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 4,531 TPD-5.
As of January 2013, the estimated remaining refuse capacity for the Altamont Landfill was 40 million tons. At the 2013 rate of fill, (including projections for waste declines through 2015 and then holding steady from that rate), the facility has slightly in excess of 34 years of capacity, assuming that S.F tons go out of County as of 2016. However, if San Francisco waste continues to go in-county, under a new agreement, then capacity will be reduced. The Landfill is permitted to operate 24 hours daily, seven days per week. Public hours of operation are from 6 a.m. to 6 p.m., Monday through Friday.

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.

c) 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, and wind energy leases as part of its stewardship of the land. The Authority is also evaluating the use of this land for diversion activities.

5. 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 Golden Bear Transfer Station in Richmond and transferred to Keller Canyon Landfill and City of Berkeley’s waste goes to Keller Canyon Landfill in Contra Costa County and Altamont Landfill. About 136,000 (approximately 11 percent of disposed waste generated in-County) were delivered to various out-of-County disposal sites in 2008. City of Berkeley also has a contract to send loads of dry rubbish and construction and demolition material Davis Street for sorting with the residuals going to Altamont.
In emergency situations, reciprocal emergency disposal agreements with adjacent counties may be made, as allowed by 14 CCR 17909 for facility contingency plans.

6 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.

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 toward the end of year 2015.

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.
7. Waste Diversion Programs

Residential Curbside Recycling Programs

Most jurisdictions have weekly curbside recyclables service, with the exception of Oro Loma Sanitary District and some portions of the unincorporated County, which have bi-weekly recycling 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 2013.
### Table 2-9

**Summary of Residential Recycling Programs**

<table>
<thead>
<tr>
<th>Jurisdiction</th>
<th>Service Providers</th>
<th>Frequency</th>
<th>Container</th>
<th>Additional Materials¹</th>
<th>Collection</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alameda</td>
<td>ACI</td>
<td>Weekly</td>
<td>32-, 64-, and 96-gallon</td>
<td>Plastics 3-7, scrap metal, aseptic containers, aerosol cans, , wide-mouthed plastics</td>
<td>Single-stream</td>
</tr>
<tr>
<td>Albany</td>
<td>WMAC</td>
<td>Weekly</td>
<td>32-,64-, and 96-gallon</td>
<td>Plastics 1-7, aseptic containers, motor oil &amp; filters, aerosol cans, CFLs, batteries, cell phones, bagged plastic bags</td>
<td>Single-stream</td>
</tr>
<tr>
<td>Berkeley</td>
<td>Ecology Center</td>
<td>Weekly</td>
<td>64 gallon split carts</td>
<td>Foil and pie tins, plastics 3-7</td>
<td>Dual-stream</td>
</tr>
<tr>
<td>Castro Valley Sanitary District</td>
<td>WMAC</td>
<td>Weekly</td>
<td>64- and 96-gallon</td>
<td>Plastics 3-7, aerosol cans, wide-mouthed plastics, latex paint cans, motor oil</td>
<td>Single-stream</td>
</tr>
<tr>
<td>Dublin</td>
<td>AVI</td>
<td>Weekly</td>
<td>32-,64-, and 96-gallon</td>
<td>Plastics 3-7, scrap metal, aseptic containers, batteries, motor oil, wide-mouthed plastics, aerosol cans</td>
<td>Single-stream</td>
</tr>
<tr>
<td>Emeryville</td>
<td>WMAC</td>
<td>Weekly</td>
<td>35-gallon</td>
<td>Plastics 3-7, aerosol cans, motor oil</td>
<td>Single-stream</td>
</tr>
<tr>
<td>Fremont</td>
<td>Republic</td>
<td>Weekly</td>
<td>32-,64-, and 96-gallon</td>
<td>Plastics 3-7, , plastic shopping bags (bundled),, motor oil</td>
<td>Single-stream</td>
</tr>
<tr>
<td>Hayward</td>
<td>Tri-CED</td>
<td>Weekly</td>
<td>32- and 64-gallon</td>
<td>Plastics 3-7, scrap metal, aseptic containers,</td>
<td>Single-stream</td>
</tr>
<tr>
<td>Livermore</td>
<td>Livermore Sanitation Inc</td>
<td>Weekly</td>
<td>20, 32, 64- and 96-gallon</td>
<td>Plastics 3-7, scrap metal, aseptic containers, batteries, plastic bags, batteries, e-waste peripherals, aseptic packaging, hardcover books.</td>
<td>Single-stream</td>
</tr>
<tr>
<td>Newark</td>
<td>Republic</td>
<td>Weekly</td>
<td>64- and 96-gallon</td>
<td>Plastics 3-7, aseptic containers, batteries (household, rechargeable, and button), motor oil</td>
<td>Single-stream</td>
</tr>
<tr>
<td>Oakland</td>
<td>CWS (as of 7/1/15)</td>
<td>Weekly</td>
<td>20-,32-,64-, and 96-gallon</td>
<td>Plastics 3-7, aseptic containers, latex paint cans, aerosol cans, motor oil</td>
<td>Single-stream</td>
</tr>
<tr>
<td>Oro Loma Sanitary District²</td>
<td>WMAC</td>
<td>Bi-weekly</td>
<td>64-, and 96-gallon</td>
<td>Plastics 3-7, aseptic containers, aerosol cans, motor oil</td>
<td>Single-stream</td>
</tr>
</tbody>
</table>

¹ All jurisdictions accept: metal containers, foil, plastics 1&2, glass, mixed paper, cardboard, and newspaper.

² The District provides residential recycling in areas L1 and L3; City of Hayward provides residential recycling in L2.
<table>
<thead>
<tr>
<th>Jurisdiction</th>
<th>Service Providers</th>
<th>Frequency</th>
<th>Container</th>
<th>Additional Materials</th>
<th>Collection</th>
</tr>
</thead>
<tbody>
<tr>
<td>Piedmont</td>
<td>Republic Services</td>
<td>Weekly</td>
<td>35-gallons</td>
<td>Plastics 3-7, aseptic containers, aerosol cans</td>
<td>Single-stream</td>
</tr>
<tr>
<td>Pleasanton</td>
<td>PGS</td>
<td>Weekly</td>
<td>35- and 90-gallon</td>
<td>Plastics 3-7.</td>
<td>Single-stream</td>
</tr>
<tr>
<td>San Leandro</td>
<td>ACI</td>
<td>weekly</td>
<td>20-, 32-, 64-, and 96-gallon</td>
<td>Plastics 3-7, scrap metal, batteries as of July 2010. motor oil</td>
<td>Single-stream</td>
</tr>
<tr>
<td>Union City</td>
<td>Tri-CED</td>
<td>Weekly</td>
<td>64-gallon</td>
<td>Plastics 3-7, small scrap metal, aseptic containers, motor oil &amp; filters, household batteries</td>
<td>Single-stream</td>
</tr>
</tbody>
</table>
## Table 2-10

### Summary of Organics Diversion Programs

<table>
<thead>
<tr>
<th>Jurisdiction</th>
<th>Service Provider</th>
<th>Frequency</th>
<th>Container</th>
<th>Destination</th>
<th>Materials Accepted</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alameda</td>
<td>ACI</td>
<td>Weekly</td>
<td>32-, 64-, and 96-gallon</td>
<td>Newby Island</td>
<td>Plant debris, food scraps, food-soiled paper</td>
</tr>
<tr>
<td>Albany</td>
<td>WMAC</td>
<td>Weekly</td>
<td>32-, 64-, and 96-gallon</td>
<td>Recology</td>
<td>Plant debris, food scraps, food-soiled paper</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Grover &amp; Redwood</td>
<td></td>
</tr>
<tr>
<td>Berkeley</td>
<td>City of Berkeley</td>
<td>Bi-weekly</td>
<td>32-, 64-, and 96-gallon &amp; 45 gallon paper bags</td>
<td>Recology Grover</td>
<td>Plant debris and unpainted wood scraps. Food scraps and food-soiled paper</td>
</tr>
<tr>
<td>Castro Valley Sanitary District</td>
<td>WMAC</td>
<td>Weekly</td>
<td>32-, 64-, and 96-gallon</td>
<td>Recology</td>
<td>Plant debris, food scraps, food-soiled paper</td>
</tr>
<tr>
<td></td>
<td></td>
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<td></td>
<td>Grover</td>
<td></td>
</tr>
<tr>
<td>Dublin</td>
<td>AVI</td>
<td>Weekly</td>
<td>32-, 64-, and 96-gallon</td>
<td>Harvest</td>
<td>Plant debris food scraps, food-soiled paper</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Power</td>
<td></td>
</tr>
<tr>
<td>Emeryville</td>
<td>WMAC</td>
<td>Weekly</td>
<td>32-, 64-, and 96-gallon</td>
<td>Recology</td>
<td>Plant debris, food scraps, food-soiled paper</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Grover, Z-Best</td>
<td></td>
</tr>
<tr>
<td>Fremont</td>
<td>Republic</td>
<td>Weekly</td>
<td>64- and 96-gallon</td>
<td>Newby Island</td>
<td>Plant debris, food scraps, food-soiled paper</td>
</tr>
<tr>
<td>Hayward</td>
<td>WMAC</td>
<td>Weekly</td>
<td>64- and 96-gallon</td>
<td>Recology</td>
<td>Plant debris, food scraps, food-soiled paper</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Grover &amp; Redwood</td>
<td></td>
</tr>
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<td>Livermore Sanitation Inc.</td>
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<td></td>
<td></td>
<td>Grover</td>
<td></td>
</tr>
<tr>
<td>Newark</td>
<td>Republic</td>
<td>Weekly</td>
<td>64-gallon</td>
<td>Newby Island</td>
<td>Plant debris, food scraps, food-soiled paper</td>
</tr>
<tr>
<td>Oakland</td>
<td>WMAC</td>
<td>Weekly</td>
<td>64-gallon</td>
<td>Recology</td>
<td>Plant debris, food scraps, food-soiled paper</td>
</tr>
<tr>
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<td></td>
<td></td>
<td>Grover</td>
<td></td>
</tr>
<tr>
<td>Oro Loma Sanitary District</td>
<td>WMAC</td>
<td>Weekly</td>
<td>32-, 64-, and 96-gallon</td>
<td>Redwood</td>
<td>Plant debris, food scraps, food-soiled paper</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Landfill &amp; Recycling Center</td>
<td></td>
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<td>Piedmont</td>
<td>Republic</td>
<td>Weekly</td>
<td>32-gallon</td>
<td>West Contra</td>
<td>Plant debris, food scraps, food-soiled paper</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Costa</td>
<td>Processing facility</td>
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<td>Jurisdiction</td>
<td>Service Provider</td>
<td>Frequency</td>
<td>Container</td>
<td>Destination</td>
<td>Materials Accepted</td>
</tr>
<tr>
<td>------------------</td>
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</tr>
<tr>
<td>Pleasanton</td>
<td>PGS</td>
<td>Weekly</td>
<td>96-gallon</td>
<td>Newby Island</td>
<td>Plant debris, food scraps, food-soiled paper</td>
</tr>
<tr>
<td>San Leandro</td>
<td>ACI</td>
<td>Weekly</td>
<td>32-, 64-, and 96-gallon</td>
<td>Newby Island</td>
<td>Plant debris, food scraps, food-soiled paper</td>
</tr>
<tr>
<td>Union City</td>
<td>Tri-CED</td>
<td>Weekly</td>
<td>96-gallon (add’l sizes upon request)</td>
<td>Newby Island</td>
<td>Plant debris, food scraps, food-soiled paper</td>
</tr>
</tbody>
</table>

**Organics Diversion Programs**

All jurisdictions have residential plant debris (also called ‘yard or green waste’) co-collected with food scraps. 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 - 11 below, provides a summary of those Non-Disposal Facilities listed in Alameda County jurisdictions’ Non-Disposal Facility Elements [NDFEs].
<table>
<thead>
<tr>
<th>JURISDICTION</th>
<th>EXISTING IN JURISDICTION</th>
<th>PROPOSED IN JURISDICTION</th>
<th>EXISTING OUTSIDE OF JURISDICTION</th>
<th>PROPOSED OUTSIDE OF JURISDICTION</th>
</tr>
</thead>
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<tr>
<td>Alameda</td>
<td></td>
<td></td>
<td>1) Davis Street MRF/T.S.</td>
<td>Compost Facilities@</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>2.</td>
<td>1) Altamont L.F.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2) Vasco L.F.</td>
</tr>
<tr>
<td>Albany</td>
<td></td>
<td>1) Davis Street MRF/T.S.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Berkeley</td>
<td>1) City of Berkeley SWMC</td>
<td>Construction Material</td>
<td>1) Marin RRC</td>
<td>Compost Facs. @</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Salvage &amp; Plant Debris</td>
<td>2) W.CoCo L.F.</td>
<td>1) Altamont L.F.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Processing @ 1) City of</td>
<td></td>
<td>2) Vasco L.F.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Berkeley SWMC</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dublin</td>
<td></td>
<td>1) Davis Street MRF/T.S.</td>
<td>1) Altamont @</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>2) Pleasanton MRF/T.S.</td>
<td>1) Altamont L.F.</td>
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<td></td>
<td></td>
<td></td>
<td>2) Vasco L.F.</td>
<td></td>
</tr>
<tr>
<td>Emeryville</td>
<td></td>
<td></td>
<td>1) Davis Street MRF/T.S.</td>
<td>MRFs/IPS Facs. @ 1) Berkeley</td>
</tr>
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<td></td>
<td></td>
<td>T.S.</td>
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<td></td>
<td></td>
<td></td>
<td>2) Davis Street</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>3) West CoCo RRF</td>
</tr>
<tr>
<td>Fremont</td>
<td>1) TCRDF</td>
<td>2) East Bay Recycling</td>
<td>1) BFI- the Recyclery</td>
<td></td>
</tr>
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<td></td>
<td></td>
<td>Services</td>
<td>2) Newby Island Compost</td>
<td></td>
</tr>
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<td></td>
<td></td>
<td>3) Fremont transfer</td>
<td>Facility</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>station/MRF</td>
<td>.....</td>
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<tr>
<td>Hayward</td>
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<td></td>
<td>1) Davis Street MRF/T.S.</td>
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</tr>
<tr>
<td>San Leandro</td>
<td>ACI Direct Transfer</td>
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</tr>
<tr>
<td></td>
<td>Station</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

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  
TCRDF: Tri-Cities Recycling & Disposal Facility

**TABLE 2-11**

NDFs listed in Alameda County Jurisdictions' NDFEs
### TABLE 2-11

**NDFs listed in Alameda County Jurisdictions' NDFEs**  
(continued)

<table>
<thead>
<tr>
<th>JURISDICTION</th>
<th>EXISTING IN JURISDICTION</th>
<th>PROPOSED IN JURISDICTION</th>
<th>EXISTING OUTSIDE OF JURISDICTION</th>
<th>PROPOSED OUTSIDE OF JURISDICTION</th>
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<tbody>
<tr>
<td>Livermore</td>
<td>1) Livermore Sanitation Inc.</td>
<td>1) Davis Street MRF/T.S.</td>
<td>3) Pleasanton MRF/T.S.</td>
<td>Compost Facs. @</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1) Altamont L.F.</td>
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<td></td>
<td>2) Vasco L.F.</td>
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<td></td>
<td>3) Grover Envmntl Prods.</td>
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<td>- Modesto</td>
</tr>
<tr>
<td>Newark</td>
<td></td>
<td></td>
<td>1) TCRDF</td>
<td></td>
</tr>
<tr>
<td>Oakland</td>
<td>2) Commercial Waste &amp; Recycling, LLC</td>
<td>1) Davis Street MRF/T.S.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Piedmont</td>
<td></td>
<td>1) Davis Street MRF/T.S.</td>
<td></td>
<td>Facs. processing Compost Materials</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1) City of Berkeley SWMC</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2) ACWMA IWMF</td>
</tr>
<tr>
<td>Pleasanton</td>
<td>1) Pleasanton MRF/T.S.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>San Leandro</td>
<td>1) Davis Street MRF/T.S.</td>
<td>2) ACI Direct T.S.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Union City</td>
<td></td>
<td></td>
<td>1) TCRDF</td>
<td></td>
</tr>
<tr>
<td>Unincorporated Alameda County</td>
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<td>1) Davis Street MRF/T.S.</td>
<td>1) ACWMA IWMF</td>
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<td></td>
<td>2) Altamont L.F.</td>
</tr>
<tr>
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<td></td>
<td></td>
<td>3) Vasco L.F.</td>
</tr>
</tbody>
</table>

MRF: Material Recovery Facility  
T.S.: Transfer Station  
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SWMC: Solid Waste Management Center  
ACI: Alameda County Industries  
ACWMA IWMF: Alameda County Waste Authority  
W.CoCo L.F.: West Contra Costa Landfill  
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 four 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, Livermore and Fremont. The Fremont facility opened in July 2008 and is operated by BLT. The County Environmental Health Department operates the other three facilities.

In 2013, approximately 3,211,207 lbs of household hazardous waste (HHW) materials were processed through these facilities. This represented about 45,398 households that were served and 684 small businesses. 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

A summary of commercial recycling arrangements for each jurisdiction is presented in Table 2-12. 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 a lot of commercial recycling in Alameda County. A robust infrastructure of hundreds of recycling and reuse businesses exists in Alameda County. In most of the jurisdictions, the franchised hauler also provides commercial recycling service. A growing trend in Alameda County has been to give the franchised haulers the exclusive right to collect commercial recyclables from larger businesses at a rate lower than the refuse rate and some include recycling service as part of the refuse fee for the smaller commercial generators.

The Alameda County Waste Management Authority adopted a Mandatory Recycling Ordinance in 2012 that requires businesses, institutions and multi-family properties with five or more units to sort their recyclables from their trash. Multi-family property owners as well as businesses and institutions that generate food waste, such as restaurants and grocery stores, must also sort compostables from their trash. These requirements are effective within participating areas of Alameda County. The ordinance requires the recycling service to be sufficient to handle the amount of recyclable material as well as the composting collection service to be sufficient to
handle the amount of food scraps and food-soiled paper generated at the location. This includes paper, cardboard, recyclable glass and metal food and beverage containers, and PET (#1), HDPE (#2) plastic bottles, discarded food and compostable paper. The Authority provides technical assistance to support the ordinance as well as enforcement as needed.
Table 2-12 Approaches to Providing Commercial Recycling

<table>
<thead>
<tr>
<th>Jurisdiction</th>
<th>Population</th>
<th>Number of Businesses¹</th>
<th>Commercial Refuse</th>
<th>Commercial Recycling</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alameda</td>
<td>75,823</td>
<td>2,130</td>
<td>Exclusive franchise</td>
<td>Exclusive franchise Small business recycling through contractor</td>
</tr>
<tr>
<td>Albany</td>
<td>16,877</td>
<td>526</td>
<td>Exclusive franchise</td>
<td>Exclusive franchise Contractor provides service on request</td>
</tr>
<tr>
<td>Berkeley</td>
<td>106,697</td>
<td>4,531</td>
<td>Municipal collection Non-exclusive franchise for roll-off</td>
<td>Open competition Free recycling through City</td>
</tr>
<tr>
<td>Castro Valley Sanitary District</td>
<td>55,000</td>
<td>699</td>
<td>Exclusive franchise</td>
<td>Exclusive franchise Service offered through contractor</td>
</tr>
<tr>
<td>Dublin</td>
<td>46,934</td>
<td>1,086</td>
<td>Exclusive franchise</td>
<td>Exclusive franchise Contractor provides service on request</td>
</tr>
<tr>
<td>Emeryville</td>
<td>9,727</td>
<td>780</td>
<td>Exclusive franchise</td>
<td>Exclusive franchise</td>
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<tr>
<td>Fremont</td>
<td>213,512</td>
<td>5,189</td>
<td>Exclusive franchise</td>
<td>Exclusive FranchiseSmall business recycling through contractor</td>
</tr>
<tr>
<td>Hayward</td>
<td>149,205</td>
<td>4,269</td>
<td>Exclusive franchise</td>
<td>Exclusive Franchise Service offered through contractor for all businesses</td>
</tr>
<tr>
<td>Livermore</td>
<td>83,604</td>
<td>2,290</td>
<td>Exclusive franchise</td>
<td>Exclusive franchise</td>
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<tr>
<td>Newark</td>
<td>43,872</td>
<td>1,202</td>
<td>Exclusive franchise</td>
<td>Exclusive Franchise Service offered through contractor</td>
</tr>
<tr>
<td>Oakland</td>
<td>420,183</td>
<td>11,225</td>
<td>Exclusive franchise</td>
<td>Open competition Small business recycling through contractor</td>
</tr>
<tr>
<td>Oro Loma Sanitary District</td>
<td>66,085</td>
<td>1,446</td>
<td>Exclusive franchise</td>
<td>Exclusive franchise</td>
</tr>
<tr>
<td>Piedmont</td>
<td>11,100</td>
<td>191</td>
<td>Exclusive franchise</td>
<td>Exclusive franchise Service offered through contractor</td>
</tr>
</tbody>
</table>

¹ Information from California Board of Equalization, 2007; Number of business establishments for sanitary districts and unincorporated county is based on percentage of waste flow: 38% for Castro Valley SD; 48% for Oro Loma SD and 14% for Uninc. County.
### TABLE 2-13

**EXEMPTED SOLID WASTE FACILITIES**

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

---

1. Solid Waste Information System.

8. **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.
9. Closed or Inactive Facilities

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

**TABLE 2 - 14**

<table>
<thead>
<tr>
<th>SWIS NO. &amp; NAME</th>
<th>OWNER/OPERATOR</th>
<th>SITE ADDRESS</th>
<th>WASTE TYPES RECEIVED</th>
<th>CLOSURE DATE</th>
<th>CLOSURE PLANS</th>
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<tbody>
<tr>
<td>01-AA-0001 Turk Island Disposal Site</td>
<td>Joe Smith, Turk Island Co.</td>
<td>32505 Union City Blvd., Union City</td>
<td>Mixed Municipal, C&amp;D</td>
<td>7/1/86</td>
<td>Park</td>
</tr>
<tr>
<td>01-AA-0004 West Beach Sanitary Landfill</td>
<td>U.S. Navy</td>
<td>SW corner of Alameda Naval Air Station, Alameda</td>
<td>Mixed Municipal, C&amp;D</td>
<td>3/1/78</td>
<td>DTSC Site</td>
</tr>
<tr>
<td>01-AA-0006 Davis Street Sanitary Landfill</td>
<td>Oakland Scavenger Co./East Bay Reg.Park Dist.</td>
<td>West end of Davis St., San Leandro</td>
<td>Mixed Municipal, C&amp;D, Tires, Sludge</td>
<td>12/80</td>
<td>Transfer Station / Oyster Bay Regional Park</td>
</tr>
<tr>
<td>01-AA-0011 Albany Landfill</td>
<td>City of Albany</td>
<td>Foot of Buchanan Street, Albany</td>
<td>C&amp;D</td>
<td>1/84</td>
<td>Open Space</td>
</tr>
<tr>
<td>01-AA-0012 City of Alameda Disposal Site</td>
<td>City of Alameda</td>
<td>Adjacent to San Leandro Channel, No. of Doolittle Dr., Alameda</td>
<td>Mixed Municipal, C&amp;D, Yard Clippings</td>
<td>02/81</td>
<td>Park</td>
</tr>
<tr>
<td>01-AA-0074 San Leandro Marina Golf Course</td>
<td>City of San Leandro</td>
<td>13800 Neptune Dr. San Leandro</td>
<td>Mixed Municipal</td>
<td>1977</td>
<td>Golf Course</td>
</tr>
<tr>
<td>01-AA-0271 Chabot Golf Course Fill</td>
<td>City of Oakland, Parks Dept.</td>
<td>End of Golf Links Road, Oakland</td>
<td>C&amp;D, Yard Clippings</td>
<td>1990</td>
<td>Driving Range</td>
</tr>
<tr>
<td>01-AC-0001 Berkeley Landfill</td>
<td>City of Berkeley</td>
<td>Foot of Virginia St., Marina, Berkeley</td>
<td>C&amp;D, Mixed Municipal, Haz. Mats., Clippings</td>
<td>1984</td>
<td>Park/Transfer Station</td>
</tr>
</tbody>
</table>
### TABLE 2-14
CLOSED OR INACTIVE SOLID WASTE FACILITIES
(cont'd.)

<table>
<thead>
<tr>
<th>SWIS NO. &amp; NAME</th>
<th>OWNER/OPERATOR</th>
<th>SITE ADDRESS</th>
<th>WASTE TYPES RECEIVED</th>
<th>CLOSURE DATE</th>
<th>CLOSURE PLANS</th>
</tr>
</thead>
<tbody>
<tr>
<td>01-CR-0001 All Cities Landfill</td>
<td>KOFY/HARD/ACFCD</td>
<td>KOFY Site; North of West end of W. Winton Ave., Hayward</td>
<td>Mixed Municipal</td>
<td>1956</td>
<td>Open Space/ Park</td>
</tr>
<tr>
<td>01-02-0031 Norris Canyon Solid Waste Disposal Site</td>
<td>The First Republic Bancorp, Inc.</td>
<td>87499 (8795) Norris Canyon Rd, Castro Valley</td>
<td>Mixed Municipal, C&amp;D</td>
<td>Unknown</td>
<td>Small canyon fill; open space</td>
</tr>
<tr>
<td>01-CR-0032 Del Valle Ashby</td>
<td>Calif. Dept. of Water Resources</td>
<td>¼ mi. NW of Del Valle Dam, Livermore</td>
<td>Mixed Municipal, C&amp;D</td>
<td>Unknown</td>
<td>Open Space</td>
</tr>
<tr>
<td>01-CR-0002 Emeryville Ashby</td>
<td>City of Emeryville</td>
<td>West end of Ashby Ave, Emeryville</td>
<td>Mixed Municipal</td>
<td></td>
<td></td>
</tr>
<tr>
<td>01-CR-003 Emeryville Dump</td>
<td>City of Emeryville</td>
<td>Ashby Ave, West of I-80/580, Emeryville</td>
<td>Mixed Municipal, C&amp;D</td>
<td></td>
<td>Open Space</td>
</tr>
<tr>
<td>01-CR-0033 Galbraith Golf Course</td>
<td>Port of Oakland</td>
<td>West of Doolittle Dr, South of Airport Dr, Oakland</td>
<td>Mixed Municipal</td>
<td>1965</td>
<td>Dredge project underway to provide new cover</td>
</tr>
<tr>
<td>01-CR-0004 Livermore Dump</td>
<td>City of Livermore</td>
<td>SW of Raymond Rd. &amp; Ames St., Livermore</td>
<td>Mixed Municipal, C&amp;D, Indust.</td>
<td>2/63</td>
<td>Open Land</td>
</tr>
<tr>
<td>01-CR-0019 Mowry Rd.Site</td>
<td>Paccar, Inc.</td>
<td>8100 Mowry Ave., Newark</td>
<td>Mixed Municipal</td>
<td>1967</td>
<td>Industrial land uses</td>
</tr>
<tr>
<td>01-CR-0034 North Port of Oakland Refuse Disposal Site</td>
<td>Port of Oakland</td>
<td>SE of Doolittle Dr. &amp; Harbor Bay Pkwy, Oakland</td>
<td>Mixed Municipal</td>
<td>1960</td>
<td>Open land, Practice Field</td>
</tr>
<tr>
<td>01-CR-0005 Old W Winton Landfill</td>
<td>City of Hayward</td>
<td>South of West end of W. Winton Ave, Hayward</td>
<td>Mixed Municipal</td>
<td>1974</td>
<td>Park</td>
</tr>
<tr>
<td>01-CR-0035 Pietronave Landfill</td>
<td>Michael &amp; Linda Dominisse</td>
<td>2500 Vineyard Ave, Pleasanton</td>
<td>Mixed Municipal</td>
<td></td>
<td>Part of original Pleasanton Landfill; Land use</td>
</tr>
<tr>
<td>01-CR-0026 Sandia, Navy Landfill</td>
<td>Dept. of Energy</td>
<td>7011 East Ave., Livermore</td>
<td>Inert Wastes</td>
<td>1960</td>
<td>Open Space</td>
</tr>
</tbody>
</table>
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 2008 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 2012**

Table 3-3 lists the calculated 2012 diversion rate based on each jurisdiction’s new per capital disposal number, using the State’s new disposal based methodology. Alameda County's overall waste diversion rate, calculated converting a per capita average to a diversion percent was 71% in 2012 (see Table 3-4).

**Characteristics of Countywide Waste Diversion in 2008**

2008 data is provided in Tables 3-1 and 3-2. These data are compiled from the 2008 Waste Characterization study.

Most of the municipal effort to separately collect and divert materials into recycling is being directed at residential waste generation. Table 3-4 shows residential disposal 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.
General Material Generated, Diverted & Disposed In Alameda County - 1990

Source: Compilation of information from each locality's original SRRFs.
All data are based on annual averages.
FIGURE 3 - B

MATERIALS DISPOSED IN ALAMEDA COUNTY (2008)

Paper 20.9%
Plastic 9.9%
Glass 3.0%
Metal 4.3%
Yard Waste 5.7%
Organic 40.3%
Inerts 11.4%
Hazardous Waste 1.0%
Special 3.5%
Hazardous Waste 1.0%
### TABLE 3-1

**2008 In-County Solid Waste Disposal Tonnage by Jurisdiction**

<table>
<thead>
<tr>
<th>Jurisdiction</th>
<th>Total Residential Disposal</th>
<th>Total Commercial Disposal</th>
<th>Self-Haul and Roll-off&lt;sup&gt;1&lt;/sup&gt;</th>
<th>Total In-County Disposal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alameda</td>
<td>15,601</td>
<td>12,303</td>
<td>15,143</td>
<td>43,048</td>
</tr>
<tr>
<td>Albany</td>
<td>2,747</td>
<td>1,358</td>
<td>1,864</td>
<td>5,969</td>
</tr>
<tr>
<td>Berkeley</td>
<td>20,163</td>
<td>17,594</td>
<td>53,250</td>
<td>91,008</td>
</tr>
<tr>
<td>Castro Valley Sanitary District</td>
<td>15,642</td>
<td>4,708</td>
<td>7,216</td>
<td>27,565</td>
</tr>
<tr>
<td>Dublin</td>
<td>9,382</td>
<td>10,398</td>
<td>11,843</td>
<td>31,623</td>
</tr>
<tr>
<td>Emeryville</td>
<td>2,957</td>
<td>4,747</td>
<td>6,549</td>
<td>14,253</td>
</tr>
<tr>
<td>Fremont</td>
<td>54,929</td>
<td>31,981</td>
<td>82,634</td>
<td>169,544</td>
</tr>
<tr>
<td>Hayward</td>
<td>42,812</td>
<td>20,514</td>
<td>57,769</td>
<td>121,095</td>
</tr>
<tr>
<td>Livermore</td>
<td>35,957</td>
<td>23,952</td>
<td>42,381</td>
<td>102,290</td>
</tr>
<tr>
<td>Newark</td>
<td>11,486</td>
<td>9,839</td>
<td>14,820</td>
<td>36,145</td>
</tr>
<tr>
<td>Oakland</td>
<td>107,176</td>
<td>55,284</td>
<td>106,348</td>
<td>268,809</td>
</tr>
<tr>
<td>Oro Loma Sanitary District</td>
<td>21,879</td>
<td>7,531</td>
<td>5,069</td>
<td>34,479</td>
</tr>
<tr>
<td>Piedmont</td>
<td>2,534</td>
<td>0</td>
<td>1,211</td>
<td>3,745</td>
</tr>
<tr>
<td>Pleasanton</td>
<td>21,519</td>
<td>11,124</td>
<td>59,294</td>
<td>91,937</td>
</tr>
<tr>
<td>San Leandro</td>
<td>26,457</td>
<td>15,080</td>
<td>46,123</td>
<td>87,660</td>
</tr>
<tr>
<td>Union City</td>
<td>15,795</td>
<td>9,825</td>
<td>22,207</td>
<td>47,826</td>
</tr>
<tr>
<td>Unincorporated Alameda County</td>
<td>125</td>
<td>1,077</td>
<td>8,913</td>
<td>10,114</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>407,160</strong></td>
<td><strong>237,315</strong></td>
<td><strong>542,633</strong></td>
<td><strong>1,187,108</strong></td>
</tr>
</tbody>
</table>

<sup>1</sup> Source: 2008 Waste Characterization Study, R.W. Beck
### TABLE 3 – 2

2012 Residential Diversion Tonnage as Tracked by Individual Member Agency

<table>
<thead>
<tr>
<th>Jurisdiction</th>
<th>Residential Curbside Recycling Tons</th>
<th>Residential Yard &amp; food Waste Tons</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alameda</td>
<td>9,380</td>
<td>8,762</td>
</tr>
<tr>
<td>Albany</td>
<td>2,088</td>
<td>1,976</td>
</tr>
<tr>
<td>Berkeley</td>
<td>7,994</td>
<td>14,744</td>
</tr>
<tr>
<td>Castro Valley Sanitary District</td>
<td>5,862</td>
<td>7,890</td>
</tr>
<tr>
<td>Dublin</td>
<td>4,535</td>
<td>9,539</td>
</tr>
<tr>
<td>Emeryville</td>
<td>1,335</td>
<td>234</td>
</tr>
<tr>
<td>Fremont</td>
<td>19,258</td>
<td>26,837</td>
</tr>
<tr>
<td>Hayward</td>
<td>11,023</td>
<td>13,454</td>
</tr>
<tr>
<td>Livermore</td>
<td>12,597</td>
<td>17,484</td>
</tr>
<tr>
<td>Newark</td>
<td>3,410</td>
<td>4,603</td>
</tr>
<tr>
<td>Oakland</td>
<td>37,666</td>
<td>36,195</td>
</tr>
<tr>
<td>Oro Loma S.D.</td>
<td>10,315</td>
<td>13,634</td>
</tr>
<tr>
<td>Piedmont</td>
<td>2,874</td>
<td>2,874</td>
</tr>
<tr>
<td>Pleasanton</td>
<td>7,758</td>
<td>13,425</td>
</tr>
<tr>
<td>San Leandro</td>
<td>5,591</td>
<td>8,235</td>
</tr>
<tr>
<td>Union City</td>
<td>5,567</td>
<td>8,077</td>
</tr>
<tr>
<td>Total</td>
<td>146,647</td>
<td>183,428</td>
</tr>
</tbody>
</table>
## Table 3 - 3

### AB 939 Status

<table>
<thead>
<tr>
<th>Jurisdiction</th>
<th>2012 Diversion Rate, Calculated based on Per Capital Disposal Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alameda</td>
<td>76%</td>
</tr>
<tr>
<td>Albany</td>
<td>84%</td>
</tr>
<tr>
<td>Berkeley</td>
<td>73%</td>
</tr>
<tr>
<td>Castro Valley Sanitary District(^1)</td>
<td>72%</td>
</tr>
<tr>
<td>Dublin</td>
<td>76%</td>
</tr>
<tr>
<td>Emeryville</td>
<td>70%</td>
</tr>
<tr>
<td>Fremont</td>
<td>72%</td>
</tr>
<tr>
<td>Hayward</td>
<td>72%</td>
</tr>
<tr>
<td>Livermore</td>
<td>77%</td>
</tr>
<tr>
<td>Newark</td>
<td>73%</td>
</tr>
<tr>
<td>Oakland</td>
<td>66%</td>
</tr>
<tr>
<td>Oro Loma Sanitary District</td>
<td>72%</td>
</tr>
<tr>
<td>Piedmont</td>
<td>71%</td>
</tr>
<tr>
<td>Pleasanton</td>
<td>70%</td>
</tr>
<tr>
<td>San Leandro</td>
<td>62%</td>
</tr>
<tr>
<td>Union City</td>
<td>77%</td>
</tr>
<tr>
<td>Unincorporated Alameda County</td>
<td>72%</td>
</tr>
<tr>
<td>Countywide Weighted Average</td>
<td>71%</td>
</tr>
</tbody>
</table>
## Table 3-4

2012 Per Capita Disposal Rates by Jurisdiction

<table>
<thead>
<tr>
<th>Jurisdiction</th>
<th>Population</th>
<th>Per Capita Disposal Rate (Lbs/Person/Day)$^1$</th>
<th>Recycling (Lbs/Person/Day)</th>
<th>Plant Debris (Lbs/Person/Day)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alameda</td>
<td>74,640</td>
<td>2.7</td>
<td>0.69</td>
<td>0.64</td>
</tr>
<tr>
<td>Albany</td>
<td>18,488</td>
<td>1.6</td>
<td>0.62</td>
<td>0.59</td>
</tr>
<tr>
<td>Berkeley</td>
<td>114,821</td>
<td>3.5</td>
<td>0.38</td>
<td>0.70</td>
</tr>
<tr>
<td>Castro Valley Sanitary District</td>
<td>61,388</td>
<td>3.6</td>
<td>0.52</td>
<td>0.70</td>
</tr>
<tr>
<td>Dublin</td>
<td>46,785</td>
<td>2.9</td>
<td>0.53</td>
<td>0.59</td>
</tr>
<tr>
<td>Emeryville</td>
<td>10,200</td>
<td>9.7</td>
<td>0.72</td>
<td>0.13</td>
</tr>
<tr>
<td>Fremont</td>
<td>217,700</td>
<td>3.6</td>
<td>0.48</td>
<td>0.68</td>
</tr>
<tr>
<td>Hayward</td>
<td>147,113</td>
<td>4.0</td>
<td>0.41</td>
<td>0.50</td>
</tr>
<tr>
<td>Livermore</td>
<td>82,400</td>
<td>3.8</td>
<td>0.84</td>
<td>1.16</td>
</tr>
<tr>
<td>Newark</td>
<td>43,041</td>
<td>4.0</td>
<td>0.43</td>
<td>0.59</td>
</tr>
<tr>
<td>Oakland</td>
<td>395,341</td>
<td>3.9</td>
<td>0.52</td>
<td>0.50</td>
</tr>
<tr>
<td>Oro Loma Sanitary District$^2$</td>
<td>135,700</td>
<td>1.65</td>
<td>0.42</td>
<td>0.55</td>
</tr>
<tr>
<td>Piedmont</td>
<td>10,807</td>
<td>2.4</td>
<td>1.15</td>
<td>1.46</td>
</tr>
<tr>
<td>Pleasanton</td>
<td>71,269</td>
<td>5.9</td>
<td>0.60</td>
<td>1.03</td>
</tr>
<tr>
<td>San Leandro</td>
<td>51,631</td>
<td>6.6</td>
<td>0.36</td>
<td>0.52</td>
</tr>
<tr>
<td>Union City</td>
<td>70,646</td>
<td>2.9</td>
<td>0.43</td>
<td>0.63</td>
</tr>
<tr>
<td>Countywide Totals &amp; Average</td>
<td>1,551,971</td>
<td>4.4</td>
<td>.50</td>
<td>.63</td>
</tr>
</tbody>
</table>

---

$^1$ Includes commercial waste.

$^2$ Oro Loma population is adjusted to reflect transfer of 40% from City of San Leandro to Oro Loma Sanitary District as population served by Oro Loma Sanitary District for solid waste/recycling services.
**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. In 2008, a new methodology to measure diversion was adopted by the State via legislation.

**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 and has maintained and exceeded it each year. In order to meet the Measure D goal of 75% diversion by the year 2010, disposal must be reduced to about 917,554 tons in 2010, from the 1.67 million tons disposed in 2000. Table 3-6 shows the targeted disposal quantities for 2010 that would enable each jurisdiction and the County as a whole to meet the Measure D goal. The actual adjusted tonnage in 2012 was 1,076,625.

The Agency’s Strategic Plan, adopted July 2010, includes changes to the way in which we communicate and measure our waste diversion goal to something that is easier to communicate to the public and measurable. That goal is to reduce the amount of readily recyclable and compostable materials deposited in landfills to no more than 10 percent of total materials landfilled by 2020.
## TABLE 3-5

**Alameda County**

**Actual Tonnage Disposal Comparison with Maximum Allowable Tonnages**

**For Measure D 75 % Diversion Goal**

<table>
<thead>
<tr>
<th>Jurisdiction</th>
<th>1990 Actual Disposal (Tons)</th>
<th>1995 Actual Disposal (Tons)</th>
<th>2000 Actual Disposal (Tons)</th>
<th>2008 Actual Disposal (Tons)(^1)</th>
<th>2010 75% Goal(^1) Max. Allowable Disposal (Tons)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Uninc. Alameda County</td>
<td>168,590</td>
<td>118,634</td>
<td>81,190</td>
<td>92,807</td>
<td>69,107</td>
</tr>
<tr>
<td>Alameda</td>
<td>96,383</td>
<td>58,494</td>
<td>49,391</td>
<td>48,322</td>
<td>35,982</td>
</tr>
<tr>
<td>Albany</td>
<td>18,483</td>
<td>10,324</td>
<td>10,779</td>
<td>6,676</td>
<td>4,971</td>
</tr>
<tr>
<td>Berkeley</td>
<td>100,285</td>
<td>123,519</td>
<td>139,538</td>
<td>86,449</td>
<td>64,373</td>
</tr>
<tr>
<td>Dublin</td>
<td>41,707</td>
<td>34,862</td>
<td>35,811</td>
<td>33,975</td>
<td>25,298</td>
</tr>
<tr>
<td>Emeryville</td>
<td>26,816</td>
<td>15,947</td>
<td>37,438</td>
<td>15,045</td>
<td>11,202</td>
</tr>
<tr>
<td>Fremont</td>
<td>285,324</td>
<td>183,021</td>
<td>205,246</td>
<td>165,008</td>
<td>122,870</td>
</tr>
<tr>
<td>Hayward</td>
<td>215,837</td>
<td>144,162</td>
<td>180,363</td>
<td>142,132</td>
<td>105,836</td>
</tr>
<tr>
<td>Livermore</td>
<td>80,621</td>
<td>82,091</td>
<td>126,264</td>
<td>90,814</td>
<td>67,623</td>
</tr>
<tr>
<td>Newark</td>
<td>58,298</td>
<td>53,209</td>
<td>52,632</td>
<td>32,755</td>
<td>24,390</td>
</tr>
<tr>
<td>Oakland</td>
<td>583,298</td>
<td>501,145</td>
<td>422,484</td>
<td>304,820</td>
<td>226,979</td>
</tr>
<tr>
<td>Piedmont</td>
<td>9,486</td>
<td>6,540</td>
<td>5,761</td>
<td>4,558</td>
<td>3,397</td>
</tr>
<tr>
<td>Pleasanton</td>
<td>105,692</td>
<td>104,140</td>
<td>126,344</td>
<td>97,697</td>
<td>72,748</td>
</tr>
<tr>
<td>San Leandro</td>
<td>140,782</td>
<td>74,847</td>
<td>143,694</td>
<td>70,384</td>
<td>52,410</td>
</tr>
<tr>
<td>Union City</td>
<td>72,613</td>
<td>58,297</td>
<td>57,029</td>
<td>40,783</td>
<td>30,368</td>
</tr>
<tr>
<td><strong>Countywide Totals</strong></td>
<td><strong>2,004,215</strong></td>
<td><strong>1,569,232</strong></td>
<td><strong>1,673,964</strong></td>
<td><strong>1,232,223</strong></td>
<td><strong>917,554</strong></td>
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</table>

\(^1\) This includes disposal reductions reported to the CIWMB of 107,760 tons total for all cities and the unincorporated area.
Table 3-6

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

<table>
<thead>
<tr>
<th>Year</th>
<th>Tri-Cities Disposal(^1,2) (Tons)</th>
<th>Vasco Rd Disposal (Tons)</th>
<th>Vasco Rd. Capacity (Tons)</th>
<th>Altamont Disposal (Tons)</th>
<th>Altamont Capacity (Tons)</th>
<th>Total In-County Disposal (Tons)(^2)</th>
<th>In-County Capacity (Tons)</th>
<th>In-County Capacity (Cu Yd)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000(^1)</td>
<td>293,004</td>
<td>477,826</td>
<td>14,215,261</td>
<td>1,489,508</td>
<td>69,076,753</td>
<td>2,260,338</td>
<td>83,886,814</td>
<td>115,308,335</td>
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<tr>
<td>2001(^3)</td>
<td>281,374</td>
<td>430,261</td>
<td>13,785,000</td>
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<td>67,630,000</td>
<td>2,158,388</td>
<td>81,818,900</td>
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<tr>
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<td>64,779,375</td>
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<td>1,293,825</td>
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<td>2,116,233</td>
<td>77,751,970</td>
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<td>2,231,279</td>
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<td>101,369,192</td>
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<td>2,093,030</td>
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<tr>
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<td>95,905,802</td>
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<td>1,184,403</td>
<td>43,000,000</td>
<td>1,845,438</td>
<td>54,664,235</td>
<td>75,139,818</td>
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<td>2010</td>
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<td>399,914</td>
<td>11,152,763</td>
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<td>1,879,573</td>
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<td>1,877,999</td>
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<td>2013</td>
<td>343,196</td>
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<td>1,410,431</td>
<td>40,000,000(^4)</td>
<td>1,753,627</td>
<td>45,680,413</td>
<td>62,790,925</td>
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<td>2016</td>
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<td>4,702,315</td>
<td>827,672</td>
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<td>41,261,810</td>
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<tr>
<td>2017</td>
<td>326,036</td>
<td>4,376,279</td>
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<td>40,108,102</td>
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<td>37,800,686</td>
<td>51,959,689</td>
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</table>

---

1 Disposal tonnages for all three landfills are actuals through 2013. Remaining numbers are estimates with disposal declining by 5 percent annually through 2015 and then held constant thereafter, due to uncertainty.

2 These tons include out of county tons disposed in county, including SF tonnage.

3 Vasco road reports 5.68 million tons remaining capacity for MSW as of end of 2013

4 Altamont reports 40 million tons remaining capacity for MSW as of end of 2013.

5 This assumes that 445,242 tons of SF waste goes out of county as of this date when the 15 million ton limit is expected to be reached, which could be earlier or later depending on actual tonnage.
<table>
<thead>
<tr>
<th>Year</th>
<th>Tri-Cities Disposal(^1) (Tons)</th>
<th>Vasco Rd Disposal (Tons)</th>
<th>Altamont Disposal (Tons)</th>
<th>Total In-County Disposal (Tons)</th>
<th>In-County Capacity (Tons)</th>
<th>In-County Capacity (Cu Yd)</th>
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<td>2025</td>
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</tr>
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</table>

**NOTES:**
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 2030, 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 end of 2013 at the three Alameda County landfills (see Table 2-8) is:

- Tri-Cities Landfill: zero
- Altamont Landfill: 40 million tons (for MSW)
- Vasco Road Landfill: 5.6 million tons
- Countywide Total: 45.6 million tons

The Altamont Landfill has 40 million tons of MSW capacity out of the total 87 million permitted. This represents approximately 34 years of remaining capacity at the current rate of fill minus S.F. waste as of 2015 with an expected closure date of 2049. The Vasco Road landfill has approximately 7 years of capacity remaining with the expected closure date of 2022 (per their Solid Waste Facility Permit).

Projected Waste Tonnages

Table 3-6 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 - 2015 period. This reduction assumes progress toward the Measure D goal of 75 percent diversion and the goal to reduce the amount of readily recyclable and compostable materials deposited in landfills to no more than 10 percent of total materials landfilled by 2020. Waste tonnages are held steady for the purpose of conservatively estimating landfill capacity after 2015. Meeting and exceeding waste reduction goals will increase landfill capacity accordingly.

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 2015), 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 3-6 indicate in excess of 34 years of landfill capacity in Alameda County. If S.F. waste continued to flow to Altamont after 2015 which would require a CoIWMP amendment and an altered agreement between the Authority and the City of S.F., Altamont’s capacity would expire in 30 years instead.
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 two landfills combined have in excess of 34 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 (the two landfills are located in the unincorporated areas of the County). 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 two 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 two 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 (diversion credit for yard trimmings used as ADC will be discontinued in 2020). 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. In 2008, the Authority adopted a plant debris landfill
ban ordinance. This requires landscape professionals, residents and businesses to separate all plant debris from garbage. Those subscribing to 4 or more cubic yards of weekly on-site garbage service must place plant debris in the designated “organics” bin, and those who haul to their local facility must deposit plant debris in the disposal facility’s designated “clean green” area. Plant debris includes grass, leaves, shrubbery, vines and tree branches.

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
- greenhouse gases
- public safety
- noise
- air quality
- energy use
- employment
- socioeconomic factors
- land use and planning
- hazardous waste
- 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: That facilities must comply with all applicable permit conditions and standards and shall be monitored regularly for compliance.

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

Implementation (Objective 1.1, Policies 1.1.1-1.1.2):

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 Department of Resources Recycling and Recovery (CalRecycle) 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 CalRecycle.
- U.S. Resource Conservation and Recovery Act [U.S. Environmental Protection Agency (EPA) or CalRecycle]. 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 a project owner applies for a permit revision.
The Authority may directly enforce its own facility related policies and ordinances, such as the countywide plant debris landfill ban, or indirectly enforce through designated parties when authorized in its policies and ordinances.

**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.

**Policy 1.2.4:** To the extent that the Authority supports facilities outside of its jurisdiction, it will take action to mitigate environmental impacts, including air pollution impacts.

**Policy 1.2.5:** The Authority will consider proximity to source of generation as a priority for facility location.

**Policy 1.2.6:** The Authority will encourage use of clean air vehicles for waste and diversion transportation to reduce environmental impacts.

**Implementation (Objective 1.2, Policies 1.2.1-1.2.6):**

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.
The Authority shall act within its powers to ensure that new and expanded facilities will have operations plans in place to control methane and other emissions. Evaluation criteria will include, among other items, proximity to point of generation and use of clean air vehicles to minimize environmental impact and use of Best Available Control Technology (BACT) to control process emissions.

**OBJECTIVE 1.3:** That hazardous wastes be removed from the solid waste stream 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 (Objective 1.3, Policy 1.3.1):**

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 and funding 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. BLT Recycling, under contract with the City of Fremont, operates a fourth HHW collection facility at the Fremont Transfer Station, partially funded by the Authority. In FY 2008-09, over 1,000 tons of material were processed at the four facilities, serving 39,000 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 (Objective 1.3, Policy 1.3.2):**


**Policy 1.3.3:** Under household hazardous waste prevention, the Authority shall promote purchase of available and effective alternatives whenever they are comparably priced with HHW products (including end-of-life management costs). (Mirrors 1.4.3)
Policy 1.3.4: To the extent feasible, the Authority shall consider programs that minimize end-of-life management costs as well as environmental health and human health impacts associated with products classified as household hazardous waste.

Implementation (Objective 1.3, Policies 1.3.3-1.3.4):
Initial target is that 90% of stores that sell significant quantities of products destined for HHW facilities will stock and promote non-toxic/less-toxic HHW alternative products. These policies and this target will be incorporated into Product Decisions program design and implementation.

Policy 1.3.5: Specific projects and measures to implement this objective would be developed and implemented (through project screening) to ensure that the Authority does not support programs with significant negative environmental impacts or those with significant financial impacts on member agency expenses. (Mirrors Policies 1.4.6, 2.7.4 and 2.8.5)

Policy 1.3.6: In support of this objective, the Authority shall adopt specific “sustainability filters,” meaning certification or rating systems that guide environmentally sound decisions. (Mirrors Policies 1.4.7, 2.7.5 and 2.8.6)

Implementation (Objective 1.3, Policies 1.3.5-1.3.6): These policies will be incorporated into Product Decisions program design and implementation. The Strategic Workplan (adopted July 2010) contains detail on programmatic implementation and will be updated annually as per Objective 5.5.

Objective 1.4: A high percentage of what is made, sold and purchased in Alameda County (Product Decisions) of specific categories supports the mission of reducing the waste stream for Alameda County by the year 2020.

Policy 1.4.1: The Authority shall focus in the following areas for this objective: general waste prevention, household hazardous waste prevention, reduction of hard to recycle or compost materials, and recycled content in products, and shall select specific categories of products as targets within each of these areas.

Policy 1.4.2: Under general waste prevention, the Authority shall foster commercial, industrial and institutional waste prevention strategies which are replicable and result in lower costs. (Mirrors Policy 2.8.2)

Policy 1.4.3: Under household hazardous waste prevention, the Authority shall promote purchase of available and effective alternatives whenever they are comparably priced with HHW products.
Policy 1.4.4: Under recycled content products, the Authority shall support development of demand for and supply of recycled content products or feedstock that support green jobs in Alameda County. (Mirrors 2.8.4)

Policy 1.4.5: Under hard to recycle or compost materials, the Authority shall discourage purchase of products that are hard to recycle, reuse or compost unless there is some compelling reason to continue using them.

Implementation (Objective 1.4, Policies 1.4.1-1.4.5):

Initial targets to implement this objective are as follows:

- Institutional kitchens and high volume food service operators located in Alameda County that participate in technical assistance or other support services from the Authority, reduce food and other inputs by an average of 25% or more from an established baseline.
- 90% of businesses in Alameda County with appropriate shipping and receiving circumstances are utilizing reusable transport packaging when economically advantageous.
- 90% of permitted landscape projects in Alameda County use locally produced or sourced compost.
- 90% of permitted landscape projects in Alameda County use locally produced or sourced mulch.
- 90% of building material supply centers will stock and promote recycled content building materials that support local green jobs.
- 90% of customers (institutional and commercial) with separate organics collection purchase and use readily recyclable/reusable/compostable food service ware and packaging.
- 90% of Alameda County brand owner/manufacturers will incorporate life-cycle metrics consistent with the Global Protocol on Packaging Sustainability into their packaging design process to reduce the environmental impact of their packaging, and utilize accurate recyclability labeling which is compliant with the Federal Trade Commission’s Green Guides.
- 90% of stores that sell significant quantities of products destined for HHW facilities will stock and promote non-toxic/less-toxic HHW alternative products. (Mirrors Implementation of Objective 1.3, Policies 1.3.3-1.3.4)

These policies and targets will be incorporated into Product Decisions program design and implementation. The Strategic Workplan (adopted July 2010) contains detail on programmatic implementation and will be updated annually as per Objective 5.5.
**Policy 1.4.6:** Specific projects and measures to implement this objective would be developed and implemented (through project screening) to ensure that the Authority does not support programs with significant negative environmental impacts or those with significant financial impacts on member agency expenses. (Mirrors Policies 1.3.5, 2.7.4 and 2.8.5)

**Policy 1.4.7:** In support of this objective, the Authority shall adopt specific “sustainability filters,” meaning certification or rating systems that guide environmentally sound decisions. (Mirrors Policies 1.3.6, 2.7.5 and 2.8.6)

**Implementation (Objective 1.4, Policies 1.4.6-1.4.7):** These policies will be incorporated into Product Decisions program design and implementation. The Strategic Workplan (adopted July 2010) contains detail on programmatic implementation and will be updated annually as per Objective 5.5.
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:** To 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.


**Implementation (Objective 2.1, Policy 2.1.1):**
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/Sub-county Programs, and funding support. Also, the Authority itself may implement programs.

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

**Implementation (Objective 2.1, Policy 2.1.2):**
The Authority will sponsor an on-going public information campaign that focuses on achievement of the countywide waste reduction goal. (See also Goal 3.) The Strategic Workplan (adopted July 2010) contains detail on programmatic implementation past 2010 and will be updated annually as per Objective 5.5

**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 (Objective 2.1, Policy 2.1.3):**
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 (Objective 2.1, Policy 2.1.4):
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 2009-01 Solid Waste Enterprises shall submit monthly reports on tons deposited in landfills, by jurisdiction, to the Authority. The Authority shall conduct periodic waste characterization and/or other direct measurement studies. 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 CalRecycle, 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.

Implementation (Objective 2.2, Policy 2.2.1):
The Agency shall incorporate this policy into Product Decisions program design and implementation. (See also Objectives 1.3 and 1.4.) The Strategic Workplan (adopted July 2010) contains detail on programmatic implementation and will be updated annually as per Objective 5.5.

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.

Implementation (Objective 2.3, Policy 2.3.1):
The Agency shall incorporate this policy into Discard Management program design and implementation. The Strategic Workplan (adopted July 2010) contains detail on programmatic implementation and will be updated annually as per Objective 5.5.
OBJECTIVE 2.4: To reduce the amount of readily recyclable and compostable materials deposited in landfills to no more than 10 percent of total materials landfilled by 2020.

Policy 2.4.1: The Authority shall implement waste management programs and facilities that maximize recovery and reduce disposal of readily recyclable and compostable materials.

Policy 2.4.2: The Authority shall monitor progress to this goal through direct evaluation.

Policy 2.4.3: The Authority shall also evaluate contaminants in source separated recycling and composting programs to ensure that pursuit of this objective does not substantially increase contaminants in those programs.

Implementation (Objective 2.4, Policies 2.4.1-2.4.3):
The Agency shall incorporate these policies into Discard Management program design and implementation. The Strategic Workplan (adopted July 2010) contains detail on programmatic implementation and will be updated annually as per Objective 5.5.

OBJECTIVE 2.5: To achieve by composting, an additional 425,000 tons of countywide diversion of organics per year by 2020.

Policy 2.5.1: 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 or support in-county composting capacity for convenient economical diversion of organic materials.

Policy 2.5.2: The Authority shall invest in composting facilities to expand capacity, if necessary to achieve Plan objectives, subject to funding availability and Policy 5.2.2.

Policy 2.5.3: The Authority shall act within its powers to ensure that additional transportation of organics to composting sites in support of this objective shall not cause exceedances of the current applicable CEQA screening thresholds of air districts for criteria air pollutants and greenhouse gases.

Implementation (Objective 2.5, Policies 2.5.1-2.5.3):
To achieve the policies above, actions could include supporting in-county capacity for a minimum of 180,000 tons per year or other measures; and supporting facilities consistent with policies 1.2.4, 1.2.5 and 1.2.6. Air emissions caused by transportation of organics to facilities will be tracked as necessary to support Policy 2.5.3.
OBJECTIVE 2.6:  Avoid or limit waste reduction by technologies that convert waste into energy.

Policy 2.6.1:  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 2.6.2:  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 2.6.3:  For residual wastes that must be landfilled, the Authority shall support recovery of landfill gases and their use in the co-generation of energy.

Policy 2.6.4:  This policy shall not prevent projects that use only source separated organics and create a soil amendment.

Implementation (Objective 2.6, Policies 2.6.1-2.6.4):
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/Sub-county 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 capture of landfill gases and, where feasible, their recovery and use as alternative energy sources.

OBJECTIVE 2.7:  To strive to ensure that adequate markets or other beneficial uses are available for all materials recovered from the wastestream.

Policy 2.7.1:  The Authority shall promote market development for recycled materials and compost.

Policy 2.7.2:  The Authority shall promote contingency plans for recycled materials facilities and compost facilities in Alameda County.

Policy 2.7.3:  The Authority shall promote those products that have locally harvested recyclable material content.

Implementation (Objective 2.7, Policies 2.7.1-2.7.5):
The Agency shall incorporate these policies and targets into program design and implementation. The Strategic Workplan (adopted July 2010) contains detail on programmatic implementation and will be updated annually as per Objective 5.5.

Policy 2.7.4:  Specific projects and measures to implement this objective would be developed and implemented (through project screening) to ensure that the Authority does not support
programs with significant negative environmental impacts or those with significant impacts on member agency expenses. (Mirrors Policies 1.3.5, 1.4.6 and 2.8.5)

**Policy 2.7.5:** In support of this objective, the Authority shall adopt specific “sustainability filters,” meaning certification or rating systems that guide environmentally sound decisions. (Mirrors Policies 1.3.6, 1.4.7 and 2.8.6)

**Implementation (Objective 2.7, Policies 2.7.4-2.7.5):**
These policies will be incorporated into Product Decisions program design and implementation. The Strategic Workplan (adopted July 2010) contains detail on programmatic implementation and will be updated annually as per Objective 5.5.

**OBJECTIVE 2.8:** To use waste management facilities and programs as a means to increase economic development.

**Policy 2.8.1:** The Authority shall promote development of new private industry in Alameda County that utilizes materials diverted from the local wastestream.

**Policy 2.8.2:** The Authority shall foster commercial, industrial and institutional waste prevention strategies which are replicable and result in lower costs. (Mirrors Policy 1.4.2)

**Policy 2.8.3:** The Authority shall promote waste prevention activities to the commercial, industrial and institutional sectors as a means of bolstering local economic efficiency and supporting the local economy.

**Policy 2.8.4:** The Authority shall support demand for and supply of recycled content products or feedstock that supply green jobs in Alameda County. (Mirrors Policy 1.4.4)

**Implementation (Objective 2.8, Policies 2.8.1-2.8.4):**
Initial targets to implement this objective are as follows. (These targets mirror a subset of those in Implementation for Objective 1.4, Policies 1.4.1-1.4.5):

- Of those industrial scale kitchens located in Alameda County that have organics collection and participate in technical assistance or other support services from the Authority, reduce food and other inputs by an average of 25% or more
- 90% of businesses in Alameda County with appropriate shipping and receiving circumstances are utilizing reusable transport packaging when economically advantageous
- 90% of permitted landscape projects in Alameda County use locally produced or sourced compost
- 90% of permitted landscape projects in Alameda County use locally produced or sourced mulch.
90% of building material supply centers will stock and promote recycled content building materials that support local green jobs.

The Agency shall incorporate these policies and targets into Product Decisions program design and implementation. The Strategic Workplan (adopted July 2010) contains detail on programmatic implementation and will be updated annually as per Objective 5.5.

Policy 2.8.5: Specific projects and measures to implement this objective would be developed and implemented (through project screening) to ensure that the Authority does not support programs with significant negative environmental impacts or those with significant impacts on member agency expenses. (Mirrors Policies 1.3.5, 1.4.6 and 2.7.4)

Policy 2.8.6: In support of this objective, the Authority shall adopt specific “sustainability filters,” meaning certification or rating systems that guide environmentally sound decisions. (Mirrors Policies 1.3.6, 1.4.7 and 2.7.5)

Implementation (Objective 2.8, Policies 2.8.5-2.8.6): These policies will be incorporated into Product Decisions program design and implementation. The Strategic Workplan (adopted July 2010) contains detail on programmatic implementation and will be updated annually as per Objective 5.5.
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 and beyond 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 (Objectives 3.1-3.5, Policies 3.1.1-3.5.1)

The Agency shall develop and implement a comprehensive communications strategy in support of these objectives and policies. The Strategic Workplan (adopted July 2010) contains detail on programmatic implementation and will be updated annually as per Objective 5.5.
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 (Objective 4.1, Policy 4.1.1):

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 (Objective 4.1, Policy 4.1.2):

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 (Objective 4.1, Policy 4.1.3):

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 2013, Alameda County has more than 34 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 (Objective 4.1, Policy 4.1.4):
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 (Objective 4.1, Policy 4.1.5):
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 Objective 4.2, Policy 4.2.1):
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 Objective 4.2, Policy 4.2.2):
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 (Objective 4.2, Policy 4.2.3):
Implement through the Authority CoIWMP amendment process. The Authority shall participate in development of a regional disaster waste management plan.

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 (Objective 4.3):
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 (Objective 4.3, Policy 4.3.1):
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 (Objective 4.3, Policy 4.3.2):
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 (Objective 4.3, Policy 4.3.3):
Implement through the Authority CoIWMP conformance process and inter-jurisdictional 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

Policy 4.4.2: The Authority shall invest in material processing facilities to expand capacity, if necessary to achieve Plan objectives, subject to funding availability and Policy 5.2.2.

Implementation (Objective 4.4, Policies 4.4.1-4.4.2):
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 (Objective 4.5, Policy 4.5.1):
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 (Objective 4.5, Policy 4.5.2):
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 (Objective 5.1, Policies 5.1.1-5.1.2):
Implement through public project development/funding analyses, the local land use permitting process, the CEQA process, and the Authority plan conformance process. Except for 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.

Policy 5.2.2: The Authority shall establish maximum thresholds for cost effectiveness for diversion programs. If the cost of a project or program exceeds the relevant threshold, then the project or program will not be considered for Authority funding.

Implementation (Objective 5.2, Policies 5.2.1-5.2.2):
Implement through the Authority CoIWMP conformance process and through coordination with jurisdictions and other responsible agencies. The Authority shall consider adoption of a methodology and initial cost thresholds no later than July 1, 2011 and review periodically as part of Objective 5.5.

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 (Objective 5.3, Policies 5.3.1-5.3.2):
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 (Objective 5.4, Policy 5.4.1):
The Authority's Planning & Organization 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 Strategic Workplan update and budget processes to guide resource management and capital improvements to the solid waste system.

Implementation (Objective 5.5, Policy 5.5.1-5.5.2):
The Authority shall prepare annual Strategic Workplan updates with specific tasks for the subsequent two years, and general tasks through the end of 2020. Updates shall be considered for adoption as formal revisions to the CoIWMP if they are not within the scope of the previously adopted plan.

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 (Objective 5.6, Policy 5.6.1-5.6.2):**
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.


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 (Objective 6.2, Policy 6.2.1): 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 (Objective 6.3, Policies 6.3.1-6.3.2):
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 AB 939 per ton landfill facility fees 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.

Policy 6.4.5: The Authority shall strive to diversify funding to sources other than those in Policies 6.4.1 – 6.4.4, including but not limited to grants and advance disposal fees.

Policy 6.4.6: The Authority shall prioritize new revenue sources other than per ton landfill facility fees (e.g., grants and advance disposal fees). However, prioritization shall not limit or exclude per ton landfill facility fee increases if Authority determines, in its sole discretion, that such increases are necessary to attain this objective.

Implementation (Objective 6.4, Policies 6.4.1-6.4.6):
Fees imposed by the Authority shall be implemented, in accordance with instructions by the Board. The Authority has adopted import mitigation, household hazardous waste and facility fees that are subject to periodic revision, and resolutions and ordinances establishing procedures and reporting requirements for the collection of these fees.
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 (Objective 6.5, Policy 6.5.1):
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, CalRecycle, 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 (Objective 6.6, Policies 6.6.1-6.6.4):
Implement through the CoIWMP plan conformance process.
GOAL 7: PROMOTE INTER-JURISDICTIONAL 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 inter-jurisdictional cooperation.

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

Implementation (Objective 7.1, Policy 7.1.1):
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 (Objective 7.1, Policy 7.1.2):
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. In 2010, the Boards adopted an updated, joint Strategic Workplan through the year 2020.

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

Implementation (Objective 7.1, Policy 7.1.3):
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 Alameda County Local Task Force/Waste Reduction Advisory Board, composed of citizen experts. Authority members and staff also coordinate with and serve on a variety of regional groups or committees dealing with waste management and related issues such as water, energy, litter and biosolids management.

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 (Objective 7.2, Policy 7.2.1):*
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 (Objective 7.3, Policy 7.3.1):*
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 (Objective 7.4, Policy 7.4.1):*
The Agency shall incorporate this policy into program design and implementation. The Strategic Workplan (adopted July 2010) contains detail on programmatic implementation and will be updated annually as per Objective 5.5.

**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 (Objective 7.5, Policy 7.5.1):
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 sub-regional planning efforts as needed.

Implementation (Objective 7.6, Policies 7.6.1-7.6.2):
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 and other government agencies working in Alameda County.

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

Implementation (Objective 7.7, Policy 7.7.1):
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. (Mirrors Implementation of Objective 7.11, Policy 7.11.1)

OBJECTIVE 7.8: To coordinate and facilitate program implementation by individual or sub-regional groupings of member agencies and other government agencies working in Alameda County.
Policy 7.8.1: The Authority shall facilitate implementation of local SRRE programs. This may include planning assistance, coordination with other member agencies and other government agencies working in Alameda County, and assistance in program design and funding.

Implementation (Objective 7.8, Policy 7.8.1):
The Authority provides technical and program assistance to member agencies and other government agencies working in Alameda County 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 sub-regional programs that are complementary to local member agency programs and other government agency programs in Alameda County, and that 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 sub-regional solid waste management programs with the approval of affected local agencies.

Implementation (Objective 7.9, Policy 7.9.1):
The Authority holds reserve landfill capacity in the Altamont Hills. The Strategic Workplan (adopted July 2010) contains detail on programmatic implementation and will be updated annually as per Objective 5.5. (Mirrors Implementation of Objective 7.13, Policy 7.13.1) The Authority's Public Affairs component is responsible for monitoring legislation and promoting the interests of the Authority and its member agencies.

OBJECTIVE 7.10: To provide countywide planning functions including maintenance of the CoIWMP.

Policy 7.10.1: The Authority shall be responsible for preparation and maintenance of the CoIWMP, including conformance findings and preparation of revisions or plan amendments.

Policy 7.10.2: The Authority shall undertake additional countywide or sub-regional planning efforts as needed.

Implementation (Objective 7.10, Policies 7.10.1-7.10.2):
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 have also adopted a joint strategic planning document in July, 2010, 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 7.11:** To ensure an exchange of information and ideas among member agencies.

**Policy 7.11.1:** The Authority shall provide opportunities for member agencies to share experiences, ideas and information in order to improve program design.

*Implementation (Objective 7.11, Policy 7.11.1):*
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. (Mirrors Implementation of Objective 7.7, Policy 7.7.1.)

**OBJECTIVE 7.12:** To coordinate and facilitate program implementation by individual or sub-regional groupings of member agencies.

**Policy 7.12.1:** 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 (Objective 7.12, Policy 7.12.1):*
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 7.13:** To implement countywide or sub-regional programs that are complementary to local member agency programs, and will result in the more efficient provision of facilities/services and improved siting, and take advantage of economies of scale.

**Policy 7.13.1:** The Authority shall implement countywide or sub-regional solid waste management programs with the approval of affected local agencies.

*Implementation (Objective 7.13, Policy 7.13.1):*
The Authority holds reserve landfill capacity in the Altamont Hills. The Strategic Workplan (adopted July 2010) contains detail on programmatic implementation and will be updated annually as per Objective 5.5. (Mirrors Implementation of Objective 7.9, Policy 7.9.1)
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 area-wide 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

<table>
<thead>
<tr>
<th>SITE CHARACTERISTICS</th>
<th>NEW CLASS</th>
<th>RECLASSIFICATION OF EXISTING CLASS I</th>
<th>NEW CLASS II</th>
<th>RECLASS. OF EXISTING CLASS II</th>
<th>NEW CLASS III</th>
<th>RECLASS. OF EXISTING CLASS II-2</th>
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<td></td>
<td>I</td>
<td>I</td>
<td>II-I</td>
<td>T/S</td>
<td>REC</td>
<td>EX</td>
</tr>
<tr>
<td>Geologic setting</td>
<td>Maximum attainable isolation from groundwater; Sec. 2531(b)</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
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</tr>
<tr>
<td>Flooding</td>
<td>Outside of 100-year floodplain</td>
<td>Yes</td>
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<td>Ground rupture</td>
<td>200’ setback from known Holocene fault</td>
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<td>Rapid geologic change</td>
<td>Outside subject area (potential to impair containment)</td>
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<td>Yes</td>
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<td>Tidal Waves: tsunamis, seiches and surge conditions</td>
<td>Outside subject coastal areas</td>
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</tbody>
</table>

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.
## TABLE 6 - 2

### GENERAL SOLID WASTE FACILITY SITING CRITERIA

<table>
<thead>
<tr>
<th>SITING FACTOR</th>
<th>SMALL/MEDIUM SCALE TRANSFER AND PROCESSING FACILITY</th>
<th>LARGE SCALE TRANSFER AND PROCESSING FACILITY</th>
<th>COMPOST FACILITY</th>
<th>LANDFILLS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>A. Seismic</strong></td>
<td>No facilities shall be placed within 200 feet of an active or recently active fault unless mitigated.</td>
<td></td>
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</tr>
<tr>
<td><strong>B. Floodplains</strong></td>
<td>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.</td>
<td></td>
<td></td>
<td>Landfills may not be located in areas subject to 100 year flooding unless protected in accord with RWQCB standards.</td>
</tr>
<tr>
<td><strong>C. Wetlands</strong></td>
<td>No facilities shall be located in wetlands, unless mitigated to the satisfaction of responsible federal, state and local agencies.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>D. Endangered Species Habitat</strong></td>
<td>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 &quot;endangered&quot; or &quot;threatened&quot; by the U.S. Department of the Interior of the State of California, unless mitigated to the satisfaction of responsible agencies.</td>
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</tbody>
</table>
### TABLE 6 - 2

**GENERAL SOLID WASTE FACILITY SITING CRITERIA**  
(Cont.)

<table>
<thead>
<tr>
<th>SITING FACTOR</th>
<th>SMALL/MEDIUM SCALE TRANSFER AND PROCESSING FACILITY</th>
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<th>COMPOST FACILITY</th>
<th>LANDFILLS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>E. Unstable Soils</strong></td>
<td>Facilities located in these areas should have engineered design features (i.e. containment structures) to assure structural stability.</td>
<td>Landfills may not be located in areas with 25% slope or greater or in areas subject to liquefaction or subsidence, unless mitigated.</td>
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<tr>
<td>Steep slopes and areas subject to liquefaction and subsidence due to natural causes.</td>
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<tr>
<td><strong>F. Major Aquifer Recharge Areas</strong></td>
<td>Facilities located in these areas should have engineered design features (i.e. containment structures) to assure structural stability.</td>
<td>Landfills may not be located in areas with 25% slope or greater or in areas subject to liquefaction or subsidence, unless mitigated.</td>
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<tr>
<td>Areas supplying principal recharge to a regional aquifer, as defined by adopted general, regional or state plans.</td>
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<tr>
<td><strong>G. Depth to Groundwater</strong></td>
<td>Facilities may be located in high groundwater areas if engineered in accord with local and State requirements.</td>
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<tr>
<td><strong>H. Permeable Strata and Soils</strong></td>
<td>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.</td>
<td>Facilities located on these soils need to meet permeability restrictions set forth by RWQCB to protect ground water.</td>
<td>Landfills shall conform to the requirements of the State Water Resources Control Board.</td>
<td></td>
</tr>
<tr>
<td>Permeability requirements are defined in CCR Title 23, Chapter 15 State regulations.</td>
<td></td>
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</tr>
<tr>
<td><strong>I. Non-attainment Air Areas</strong></td>
<td>All facilities shall comply with permitting requirements of the Bay Area Air Quality Management District.</td>
<td></td>
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<tr>
<td>Areas not in compliance with national air quality standards for one or more measured air pollutants.</td>
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</table>
### TABLE 6-2

**GENERAL SOLID WASTE FACILITY SITING CRITERIA**  
(Cont.)

<table>
<thead>
<tr>
<th>SITING FACTOR</th>
<th>SMALL/MEDIUM SCALE TRANSFER AND PROCESSING FACILITY</th>
<th>LARGE SCALE TRANSFER AND PROCESSING FACILITY</th>
<th>COMPOST FACILITY</th>
<th>LANDFILLS</th>
</tr>
</thead>
<tbody>
<tr>
<td>J. PSD Air Areas</td>
<td>Prevention of significant deterioration areas are those in compliance with national air quality standards.</td>
<td>All facilities shall comply with permitting requirements of the Bay Area Air Quality Management District.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>K. Mineral Resources Area</td>
<td>Facilities should not be sited to preclude extraction of minerals necessary to sustain the economy of the State or County.</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>L. Prime Agricultural Lands/Open Space</td>
<td>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.</td>
<td>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.</td>
<td>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.</td>
<td></td>
</tr>
<tr>
<td>M. Military Lands</td>
<td>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.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>N. Other Federal, State and Indian Lands</td>
<td>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.</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>SITING FACTOR</td>
<td>SMALL/MEDIUM SCALE TRANSFER AND PROCESSING FACILITY</td>
<td>LARGE SCALE TRANSFER AND PROCESSING FACILITY</td>
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<td>LANDFILLS</td>
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</tr>
<tr>
<td><strong>O. Proximity to Major Transportation Routes</strong></td>
<td>Should be located to minimize distances to major transportation routes which are designed to accommodate heavy vehicles.</td>
<td>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.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>P. Proximity to Development</strong></td>
<td>Road networks leading to major transportation routes should not pass through residentially developed areas, and should be demonstrated to be safe with regard to capacity, design and construction, and operations (accident rate; excessive traffic, etc.).</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>i. Residential Development</td>
<td>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.</td>
<td>Facility distribution should be balanced geographically. Proximity is desirable to encourage use &amp; minimize transportation and other impacts (energy, air). A buffer of 200 feet is desirable.</td>
<td>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 protection for the public.</td>
<td></td>
</tr>
<tr>
<td>ii. Institutional Facilities</td>
<td>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.</td>
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</tbody>
</table>
### GENERAL SOLID WASTE FACILITY SITING CRITERIA

(Cont.)

<table>
<thead>
<tr>
<th>SITING FACTOR</th>
<th>SMALL/MEDIUM SCALE TRANSFER AND PROCESSING FACILITY</th>
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<th>LANDFILLS</th>
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<tbody>
<tr>
<td>P. Proximity to Development</td>
<td>(cont.)</td>
<td></td>
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</tr>
<tr>
<td>iii. Public Facilities: Schools, Churches, Hospitals, Civic Buildings, Libraries</td>
<td>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.</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Q. Proximity to Public Services</td>
<td>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.</td>
<td>Emergency services should be readily available within reasonable response times.</td>
<td>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.</td>
<td></td>
</tr>
<tr>
<td>R. Proximity to Waste Stream</td>
<td>Collection centers should be easily available close to residentially zoned areas to encourage use.</td>
<td>May be located at a distance from waste sources because of the need for large sites and buffer zones to protect the public welfare.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>S. Appropriate Zoning</td>
<td>Commercial, industrial and agricultural zones may be appropriate.</td>
<td>Industrial or Agricultural areas.</td>
<td>Can be located in agricultural industrial areas and watershed areas.</td>
<td>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.</td>
</tr>
<tr>
<td>SITING FACTOR</td>
<td>SMALL/MEDIUM SCALE TRANSFER AND PROCESSING FACILITY</td>
<td>LARGE SCALE TRANSFER AND PROCESSING FACILITY</td>
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<tr>
<td><strong>T. Conformance with Approved Countywide Siting Element of the Integrated Waste Management Plan</strong></td>
<td>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.</td>
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</tr>
<tr>
<td><strong>U. Recreational, Cultural or Aesthetic Areas</strong></td>
<td>May be allowed to handle wastes generated by visitors, workers or residents of these areas.</td>
<td>Shall not be allowed in these areas unless suitable mitigation implemented.</td>
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<td></td>
</tr>
<tr>
<td>Historic preservation, Indian reservations, and other cultural and scenic areas, as defined in locally adopted general plans.</td>
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</tr>
<tr>
<td><strong>V. Airport Zones</strong></td>
<td>Appropriate if consistent with ALUC Policy Plan criteria.</td>
<td>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.</td>
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</tbody>
</table>
### TABLE 6 - 2

**GENERAL SOLID WASTE FACILITY SITING CRITERIA**
(Cont.)

<table>
<thead>
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<th>LANDFILLS</th>
</tr>
</thead>
<tbody>
<tr>
<td>W. Gas Migration/ Emission</td>
<td>Should be designed and operated to minimize negative odor emissions consistent State composting regulations.</td>
<td>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.</td>
<td></td>
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</tbody>
</table>

**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.

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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. Cal Recycle [ ] 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 Cal Recycle.
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 as originally submitted,

and

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

This chapter serves as a historical reference to programs adopted in the Cities SRREs as required by state law.

Updates to local programs are made through the electronic annual reports which update the local jurisdiction’s source reduction and recycling elements and report on their progress.

Updates to countywide programs are made within the annual strategic workplan update which is Appendix B of the Alameda County Waste Management Authority annual budget (Appendix F to this document and updated annually).
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 Cal Recycle.

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.

The programs that the Cities report on in their SRREs include the following
# SRRE Programs Summary - Year 2013

<table>
<thead>
<tr>
<th>Programs</th>
<th>Alameda</th>
<th>Alameda Co.</th>
<th>Albany</th>
<th>Berkeley</th>
<th>Dublin</th>
<th>Emeryville</th>
<th>Fremont</th>
<th>Hayward</th>
<th>Livermore</th>
<th>Newark</th>
<th>Oakland</th>
<th>Piedmont</th>
<th>Pleasanton</th>
<th>San Leandro</th>
<th>Union City</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Source Reduction</strong></td>
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</tr>
<tr>
<td>Xeriscaping/ Grasscycling</td>
<td>x</td>
<td>x</td>
<td></td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
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<td>x</td>
<td>x</td>
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<td></td>
</tr>
<tr>
<td>Home/On-Site Composting/Mulching</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
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**Figure 7 - A**
## SRRE Programs Summary - Year 2013

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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.

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

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

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

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

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

VARIOUS MATERIALS
Jurisdictions support diversion of various materials.

PUBLIC INFORMATION
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 exceeded the AB939 waste reduction mandates for the year 2000. The County as a whole has met the 50% goal.
### Table 7-1
Diversion Rates from 2000 to 2012

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* Diversion rates as approved by Cal Recycle for 1995 to 2004, and as per jurisdiction's annual reports submitted to Cal Recycle for 2005 through 2006. 2007 through 2012 diversion rates calculated based on per capita disposal rates.

- a. Unincorporated area includes Castro Valley Sanitary District and Oro Loma Sanitary District.
- b. The County-wide rate is a calculated diversion rate equal to tons disposed divided by tons generated, which is estimated by the Alameda County Waste Management Authority based on data from each jurisdiction's annual reports submitted to the Cal Recycle.
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 $8.17 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 7-2

ALAMEDA COUNTY
COUNTYWIDE PROGRAMS IDENTIFIED IN LOCAL SRREs

<table>
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<th>PROGRAM</th>
<th>AGENCY RESPONSIBLE FOR:</th>
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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 StopWaste 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 StopWaste 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**


- **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 landfiling 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. In 2014, the Alameda County Waste Management Authority authorized an additional $9.55 fee per year per residential unit. Without additional funding, the HHW program would have needed to be cut back dramatically. The new funding allows an expansion of hours and also allows for one day community events to be held around the county. 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 four 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. A fourth facility in Fremont opened in 2008.

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 2013-14 public outreach efforts included direct mail. 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
- e-waste (starting in 2015)

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, three of the four facilities are operated by the Alameda County Environmental Health Department with the fourth facility privately operated by BLT under a contract with the city of Fremont. 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 HHW 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 7-3

**COMPARISON OF WASTE REDUCTION ALTERNATIVES**

<table>
<thead>
<tr>
<th>Waste Reduction Method</th>
<th>Advantages</th>
<th>Potential Disadvantages</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Source Reduction</strong></td>
<td>• Top of hierarchy</td>
<td>• Difficult to quantify</td>
</tr>
<tr>
<td></td>
<td>• Reduces environmental emissions</td>
<td>• Difficult to monitor</td>
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<tr>
<td></td>
<td>• Encourages long-term behavior change</td>
<td>• Requires behavior change</td>
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<tr>
<td></td>
<td>• Allows broad public participation</td>
<td>• Potential unanticipated effects on recycling programs</td>
</tr>
<tr>
<td></td>
<td>• Less expensive</td>
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</tr>
<tr>
<td></td>
<td>• Stretches natural resources</td>
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<tr>
<td></td>
<td>• Not capital-intensive</td>
<td></td>
</tr>
<tr>
<td><strong>Recycling</strong></td>
<td>• Conservation of natural resources</td>
<td>• Some materials experience quality degradation with repeated use</td>
</tr>
<tr>
<td></td>
<td>• Less water and energy used as opposed to virgin materials</td>
<td>• Recycling has potential localized environmental impacts</td>
</tr>
<tr>
<td></td>
<td>• Less emissions</td>
<td>• Siting difficulties</td>
</tr>
<tr>
<td></td>
<td>• More processes economically feasible as avoided costs increase</td>
<td>• Market development needed</td>
</tr>
<tr>
<td><strong>Composting</strong></td>
<td>• High waste diversion potential</td>
<td>• High facility costs</td>
</tr>
<tr>
<td></td>
<td>• Beneficial land applications</td>
<td>• Siting difficulties</td>
</tr>
<tr>
<td></td>
<td>• Conservation of topsoil</td>
<td>• Potential vector concerns</td>
</tr>
<tr>
<td></td>
<td>• Water conservation</td>
<td>• Potential odor problems</td>
</tr>
<tr>
<td></td>
<td>• Demonstrated markets</td>
<td>• Quality control required</td>
</tr>
<tr>
<td><strong>Transformation</strong></td>
<td>• Alternative market for homogeneous materials, e.g. wood chips</td>
<td>• Contamination potential</td>
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</table>
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 to meet the County's projected needs for 34 years until 2049. This assumes that the County will make progress toward the 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 (2015--2030) capacity requirement.

This Plan was amended in 2000 to identify an expanded facility at the Altamont Landfill. Thus as of 2014, Alameda County has approximately 34 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-B. 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 on Authority owned land at this time.
Figure 7 - B

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 to a total of 87 million tons.

Vasco Road Sanitary Landfill

In 2007, Vasco Road applied for and received an updated permit recognizing a new estimated closure date of 2022. The design and permitted capacity for Vasco Road is 32,970,000 cubic yards.

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.
### FACILITIES STATUS AND IMPLEMENTATION SCHEDULE

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<tr>
<th>FACILITY</th>
<th>1990</th>
<th>1995</th>
<th>2000</th>
<th>2010</th>
<th>…⇒2045</th>
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<td>DAVIS STREET TRANSFER STATION</td>
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<td>BERKELEY TRANSFER STATION</td>
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<td>w/ required waste reduction</td>
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<td>ALTAMONT LANDFILL</td>
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<tr>
<td>VASCO RD. LANDFILL</td>
<td>2022 Estimated Closure (6)</td>
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<td></td>
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<td>w/ Ctd. Out-of-County Soils/C&amp;D Import &amp; required waste reduction</td>
</tr>
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</table>

(2) Pursuant to ACSWMA Resolution No. 46 March 24, 1982 and ACWMA Res. No. 269 November 17, 1993.
(4) Pursuant to ACSWMA Resolution No. 52 May 26, 1982; and ACWMA Res. No. 263 October 27, 1993.
(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 available in the Agency's budget and strategic plan.

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.

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 CoWMP 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 Alameda County Waste Management Authority has placed a $4.34 (raised to this as of 1/1/10) 0 per ton "AB 939" fee on wastes disposed at the three landfills in Alameda County and on solid waste originating in Alameda County.
The fee applies to all tons of solid waste deposited in landfills in Alameda County as defined in ordinance 2009-01 and all tons of solid waste originating in Alameda County. The owners of landfills in Alameda County collect the fee for tons of solid waste deposited in landfills in Alameda County; owners of transfer stations and other non-disposal facilities collect the fee for tons of solid waste that pass through their facilities and eventually are deposited in landfills outside of Alameda County but within the State of California; and haulers of solid waste that directly haul to landfills or facilities outside of Alameda County collect the fee on those tons of hauled waste that are eventually deposited in landfills outside of Alameda County but within the state of California. These fees are remitted to the Alameda County Waste Management Authority.

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 $6.23 per ton for most San Francisco wastes, with a standardized fee of $4.53 per ton on wastes from other sources. Funds collected from mitigation fees may only be used to mitigate the impact of imported waste.

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. In May, 2014, the Authority adopted an annual fee of $9.55 per residential unit to supplement the $2.15 per ton landfill fee. This was based on the fact that the $2.15 fee had not been changed since 2000 and declining tonnages led to declining revenues for the program. Without the new fee, the program would have had to been cut back dramatically. With the new fee, the program will be able to increase hours and add new one day events throughout the county.

Recycling Board Current Fees

Measure D Fee

This initiative, approved by Alameda County voters in November, 1990, imposes a $8.17 per ton disposal charge at
the Altamont and Vasco landfills located in unincorporated 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 57º F at the Berkeley station and 61º 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 2012 population of 1,573,254. The average population per household in 2012 for the entire County is 2.78.
Table A on the following page illustrates the population in Alameda County based on the most recent 2008, 2000, 1994 and 1992 data from the California Department of Finance and the 2010 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 2010 Census data (the most recent data) was made up of 43% White (non Hispanic), 12.6% Black (non Hispanic), 22.5% Hispanic, 26.9% Asian and Pacific Islander, 0.6% American Indian and Alaska Native, and 11.4% other (non Hispanic).

The median age of the County's population was 36.6 in 2010, with 22.6% of the population under 18 years old, 66.3% in the 18 to 64 years range, and 11.1% in the 65 years and over category.
# TABLE A
## ALAMEDA COUNTY POPULATION

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<td>City of Alameda</td>
<td>76,459</td>
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<td>79,829</td>
<td>73,713</td>
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<td>Total Incorporated</td>
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<td>Total Unincorporated</td>
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1. Source: 1990 Census Population - Alameda County; Public Law 94-171 Reapportionment Data Release, 1990. These are the figures used in the SRREs.


7. 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, 2010. According to the census, the median household income for Alameda County is $69,384. The families median income is $85,014. The overall per capita income for the County is $33,961.

HOUSING
According to the 20010 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 582,549 units, an increase by approximately 9% since 2003.

The estimated number of single family units (including detached and attached units) is 352,423, of which (53%) are detached units. Multiple family units (including duplex, triplex, fourplex and five or more units) amount to 223,606 units, and mobile homes amount to 7,838 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.
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.

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 each facility; b) an estimate of the amount originating from Hayward; c) a breakdown by tons generated 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 from known developments.

Per capita waste disposal and diversion rates were calculated by dividing the total quantity of residential waste disposed by the city population. 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 the 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 (this is limited to 87 million tons however, by the 2000 settlement agreement), 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.