SOLANO COUNTY COUNTYWIDE INTEGRATED WASTE MANAGEMENT PLAN Summary Plan

November 1995

Environmental Science Associates

301 Brannan St. Suite 200 San Francisco, California 94107-1811 (415) 896-5900

Also offices in

Los Angeles

Sacramento

940527



SOLANO COUNTY

COUNTYWIDE SUMMARY PLAN

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SOLANO COUNTY

COUNTYWIDE SUMMARY PLAN

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I. PURPOSE OF THE SUMMARY PLAN AND PLAN GOALS, POLICIES, AND OBJECTIVES

A. INTRODUCTION

The California Integrated Waste Management Act directs counties to prepare a Countywide Integrated Waste Management Plan. This plan consists of the Source Reduction and Recycling Elements (SRREs), the Household Hazardous Waste Elements (HHWEs), and the Non-Disposal Facility Elements (NDFEs) of each jurisdiction, the Countywide Siting Element, and the Countywide Integrated Waste Management Summary Plan.

The Countywide Integrated Waste Management Summary Plan, or Summary Plan, shall, according to the statutes:

...include a summary of significant waste management problems facing the County or City and County. The plan shall provide an overview of the specific steps that will be taken by local agencies, acting independently and in concert, to achieve the purposes of this division [of the law]. The plan shall contain a statement of the goals and objectives set forth by the Countywide task force. ..(Public Resources Code (PRC) Section 41751).

The purpose of the Summary Plan is to summarize and integrate all of the elements of the Countywide integrated waste management planning process. As detailed in the regulations governing preparation of the Countywide and Regionwide Integrated Waste Management Plan (Title 14, Chapter 9, Article 6.5), this integration is achieved in several ways: first, by establishing Countywide goals and objectives for Countywide integrated waste management planning, and an administrative structure for preparing and maintaining the Summary Plan. Second, integration is achieved by describing the current system of solid waste management in the County, and detailing the significant waste management factors affecting the County. Third, integration is achieved by summarizing the programs and facilities selected for integration in the planning documents of the individual jurisdictions. Fourth, and perhaps most importantly, integration is achieved by considering whether any programs or facilities should be implemented on a Countywide basis, and if so, how such programs will be structured, designed, financed, and administered.

Solano County and its seven incorporated jurisdictions, Benicia, Dixon, Fairfield, Rio Vista, Suisun City, Vacaville, and Vallejo, have each prepared and adopted their SRREs, HHWEs and NDFEs, and have submitted these to the CIWMB for final approval. The Summary Plan, along with the Countywide Siting Element, represent the last two pieces of the Solano County Countywide Integrated Waste Management Plan. This Summary Plan is intended to fulfill the requirements of the Statute and Regulations, and to provide a blueprint for regional cooperation that will facilitate implementation of Solano County's integrated waste management system. Information that serves as a basis for program summary and development is derived from the adopted SRREs, HHWEs, and NDFEs of Solano County and its cities.

The remainder of this chapter presents the goals, policies, and objectives for guiding the transition to an integrated waste management system in Solano County. The goals, policies, and

objectives are derived from the SRREs, HHWEs, and NDFEs of the individual jurisdictions, and constituted by the Local Task Force to reflect the spirit of interjurisdictional cooperation inherent in the Countywide planning process. The goals present our vision of a future integrated waste management system. The policies provide a framework for developing programs that will achieve the stated goals. The objectives are established to provide a gauge for measuring progress toward achievement of the goals.

B. GOALS

The Cities and the County hereby establish the following goals for the development and implementation of an integrated waste management system in Solano County:

- Transform the current system of producing, consuming, and disposing of material goods to a new system that conserves natural resources and landfill capacity, and that is sustainable for present and future generations. This new system shall place greatest emphasis on reducing the generation of solid waste at the source of generation; secondary emphasis on recycling or composting the maximum feasible amount of that solid waste that is generated; and, finally, disposing of the residue that cannot be reduced, recycled, or composted in sanitary landfills that meet current regulatory design criteria for environmental protection.
- 2. Strengthen markets for secondary materials by continuing to place emphasis on front-end (source-separated) management methods that produce the highest quality, most marketable materials, and by increasing local markets for locally produced materials.
- 3. Develop integrated waste management programs that are conducive to community development and social goals, such as the promotion of gainful employment and the involvement of community service organizations and local small businesses.
- 4. Decrease the production, consumption, use, and disposal of hazardous household products. For those materials that are used and disposed, the goal shall be to reuse or recycle as much of the material as possible, and to dispose of the remainder in a timely and environmentally safe manner.
- Reduce the amount and hazard of special wastes generated; maximize recycling, reuse, and composting of special waste that is generated; and ensure environmentally safe disposal of special waste which cannot be reused, recycled, or composted.

C. POLICIES

The Cities and the County have established the following policies for providing a programmatic framework for achieving the goals stated above:

1. The Cities and the County will work together to encourage a transition to a less wasteful society by educating the populace regarding the necessity to waste less, and on less wasteful practices; by manipulation of market forces, for example, through landfill tip-fee surcharges and variable can rate structures; through encouraging residents, businesses, farms, and institutions to participate in source reduction, re-use, recycling, and composting

programs; and by setting an example for resource conservation and less wasteful behavior within City and County government operations.

- 2. The Cities and the County will strive to reduce the amount and toxicity of waste generated, by encouraging residents, businesses, and institutions to reduce the use of non-recyclable materials, replace disposable materials and products with reusable materials and products, reuse packaging and products, reduce the amount of yard waste generated, purchase repairable products, and increase the efficiency of use of material resources during manufacturing and during product use.
- 3. The Cities and the County will cooperate in the development of new source reduction programs through the institution of pilot programs within one or two jurisdictions that can serve as a model and a test for the other jurisdictions.
- 4. Similar diversion and disposal programs selected by neighboring jurisdictions may be combined or coordinated when and if this will result in the achievement of economies of scale in capitalizing and operating programs, and in the efficiency and effectiveness of programs, as long as such consolidation does not conflict with the interests of individual jurisdictions.
- 5. In order to strengthen markets for recycled and composted materials, the Cities and the County will work toward establishing a Recycling Market Development Zone. The RMDZ will be used to attract appropriate industries that use secondary materials to locate within the County, and to encourage existing businesses to use recycled feedstock. These industries will provide a local market for recovered materials, and will form the basis for a transition to a local economy based on the principal of sustainability.
- 6. The Cities and the County will stimulate demand for recycled products by establishing procurement preferences for purchases by governmental agencies, and by encouraging individuals and businesses to buy recycled, reused, source-reduced, and composted products.
- 7. All residents of the Cities and the County shall have access to a program that safely and effectively handles and disposes of household hazardous wastes.

D. OBJECTIVES

The Cities and County will work together to meet the following objectives:

- 1. Achieve a Countywide diversion rate of at least 25% as quickly as feasible, through a combination of source reduction, recycling, and composting.
- 2. Achieve a Countywide diversion rate of at least 50% through a combination of source reduction, recycling, and composting, by January 1, 2000.
- 3. Achieve a significant increase in the amount of diversion through source reduction. Individual jurisdictions have source reduction objectives of .5-1.5% short term, and 2.3-3.0% medium term. The cities and the County will monitor the achievements of their source reduction programs according to the methods stated in the SRREs.

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- I. Purpose of the Summary Plan and Plan Goals, Policies, and Objectives
- 4. Public education and information programs will target residents, youth, businesses, and government agencies, and will result in high levels of awareness about, and participation in, source reduction, recycling, and composting programs.
- 5. Make recycling programs available to 90% of County residents.
- 6. At least 15% of Solano County households will replace at least one household hazardous waste product with a safer, effective alternative product or method each year; an additional 10% of households will participate in a household hazardous materials collection event each year. The individual jurisdictions will conduct periodic surveys of their residents to assess changes in the use of hazardous products.
- 7. Collect 50% of all household hazardous waste generated, and 90% of the used oil generated by the year 2000.

E. IMPLEMENTATION SCHEDULE FOR ACHIEVING OBJECTIVES

Table 1-1 sets out a schedule for achieving the objectives stated above.

TABLE 1-1: IMPLEMENTATION SCHEDULE FOR ACHIEVING OBJECTIVES

Objective/Task	Milestone to be Achieved	Date of Implementation	Responsible Agency
1. Achieve Countywide Diversion of 25	%		
Implement short-term source reduction programs	Individual jurisdictions will achieve diversion rates of .5-1.5%	Ву 1995	Individual jurisdictions, LTF
Implement short-term recycling programs	Individual jurisdictions will achieve diversion rates of 10-25.5%	By 1995	Individual jurisdictions
Implement short-term composting programs.	Individual jurisdictions will achieve diversion rates of 0-13%	By 1995	Individual jurisdictions
2. Achieve Countywide diversion of 50	76		
Implement medium-term source reduction programs	Individual jurisdictions will achieve diversion rates of 2.3-3.0 %	By January 1, 2000	Individual jurisdictions, LTF
Implement medium-term recycling programs	Individual jurisdictions will achieve diversion rates of 27-35.4%	By January 1, 2000	Individual jurisdictions
Implement medium term composting programs.	Individual jurisdictions will achieve diversion rates of 15.9-22%	By January 1, 2000	Individual jurisdictions
3. Achieve increase in diversion through	source reduction		
Place emphasis on implementing planned source reduction.	Increased availability of, and participation in, source reduction programs.	1995-2000	Individual jurisdictions, LTF
Coordinate implementation of source reduction programs at the Countywide level.	Greater effectiveness, lower cost, swifter implementation of source reduction programs.	1995-2000	LTF
			(Continued)

TABLE 1-1: IMPLEMENTATION SCHEDULE FOR ACHIEVING OBJECTIVES (Continued)

Objective/Task	Milestone to be Achieved	Date of Implementation	Responsible Agency
4. Education and public information tar	gets, levels of awareness		
Target residents, youth, businesses, and government agencies.	High level of awareness of diversion program options; high participation levels in programs.	1995-2000	Individual jurisdictions, LTF
5. Recycling programs available to 90%	of residents		
Develop a variety of recycling programs to fit differing needs.	Nearly universal availability of recycling programs throughout the County.	1995-2000	Individual jurisdictions, LTF, service providers
6. Household hazardous wastes: 15% ar	nnual substitution rate;	10% participation	in collection events
Emphasize development of HHW substitution programs.	Increased awareness of dangers of hazardous household products, and of safer, effective alternatives.	1995-2000	Individual jurisdictions, LTF
Hold periodic collection events throughout the County.	Availability of collection events to all County residents.	1995-2000	Individual jurisdictions, LTF, service providers
Publicize collection events	High awareness of events, high participation rates.	1995-2000	Individual jurisdictions, service providers
Establish additional drop-off locations for recyclable HHW	Daily availability of opportunities for residents to properly dispose of majority of HHW.	1995-2000	Individual jurisdictions, service providers
7. Collect 50% of all HHW generated, 90	% of used oil generated		
Intensify efforts to publicize and hold collection events, establish recycling drop-off centers, promote product substitution	High level of awareness of issues surrounding HHW, and of options for source reduction and proper disposal.	1995-2000	Individual jurisdictions, LTF, service providers

A. INTRODUCTION

This chapter includes a general, descriptive summary of the geography, demography, and economy of Solano County; a description of how integrated waste management is administered in Solano County, and identification of the entities responsible for administering and implementing this Countywide Integrated Waste Management Plan. This chapter is written to comply with CCR Section 18757.3

B. DESCRIPTION OF SOLANO COUNTY

PHYSICAL GEOGRAPHY

Solano County is located halfway between the San Francisco and Sacramento metropolitan areas in Northern California. The County consists of diverse landform, including marsh, waterways, mountain slopes, and flat areas of the Sacramento Valley. The County is comprised of 823 square miles of land and 75 square miles of water. The land area is divided into two topographic sections. The western quarter extends into the coastal range foothills, characterized by steep slopes becoming more gently rolling in the easterly portion. The remainder is part of the Sacramento Valley Basin, except for isolated areas of low, rolling hills. Urban development is centered around the Cities and transportation corridors; most land is used for agricultural purposes (Solano County Planning Department, 1992). Major water bodies include the Suisun and Napa Marsh, with areas totaling more than 80 square miles. The Sacramento River and adjoining Delta border the southern perimeter of the County (Solano County Planning Department, 1992).

Solano County's climate consists of mild, rainy weather from November through March, and warm, dry weather from June through September. Rainfall is generally higher along the easternmost portion of the County; the Coast Range creates a rain shadow which reduces rainfall in the western part of the County.

POLITICAL DIVISIONS

The seat of Solano County is Fairfield. There are seven cities in Solano County, Vallejo, Benicia, Fairfield, Suisun, Vacaville, Dixon, and Rio Vista. Each city maintains separate authority over solid waste collection. However, the cities of Fairfield and Suisun use the same waste hauler and landfill, as do the cities of Vacaville and Dixon. The unincorporated area consists of both agricultural uses and less dispersed residential uses in proximity to several cities. The following are unincorporated communities and their neighboring cities: Homeacres, Lemon Street, and Sandy Beach are unincorporated pockets of the City of Vallejo; Tolenas, Rockville, Green Valley, and Cordelia are adjacent to the City of Fairfield; Elmira, Allendale, and English Hills are adjacent to the City of Vacaville. Garbage collection in these areas is provided independently by the haulers with franchise agreements in the neighboring cities. For planning purposes, the County can generally be subdivided into five areas: Vallejo/Benicia, Fairfield/Suisun, Vacaville, Dixon and Rio Vista (Solano County Housing Element, 1992).

Transportation

Interstate 80 (I-80) is a multi-lane freeway traveled by approximately 113,000 vehicles per day (Caltrans, 1993). I-80 extends through the middle of Solano County in a northeast-southwest direction; the Southern Pacific Railroad is parallel and south of I-80, connecting the San Francisco Bay Area to Sacramento. Other major roadways include: I-505, which extends north from I-80 and connects to I-5 in Yolo County; Route 12, which connects the Rio Vista area to I-80; and I-680, which links I-80 to the South Bay Counties. The Sacramento River Deep Water Ship Channel connects San Pablo Bay to Sacramento, comprising part of the southeastern perimeter of Solano County.

Major Governmental Installations

Mare Island Naval Shipyard in Vallejo (which is scheduled for closure) and Travis Air Force Base east of Fairfield are the two major military bases in Solano County. Smaller municipal airports include Rio Vista Municipal Airport and Nut Tree Solano County Airport.

Demography and Social Characteristics

The estimated total population of Solano County in 1995 is 395,600. Population is projected to increase to 507,200 in 2005 and to 546,800 in 2010. The County's population has expanded consistently since 1960. Solano County is projected to have the highest rate of population growth of the nine Bay Area counties until year 2010. Solano County has the highest number of persons per household in all Bay Area counties (ABAG, 1993).

Currently, the largest age group by population is 25 to 34 years old. Projections indicate that from 1995 to 2010 the largest age group by population will be 35 to 44. The 1990 Census of Population and Housing indicate that the County's population is 66% white, 13% black, 13% Asian or Pacific Islander, one percent American Indian and Eskimo, and six percent other (Department of Finance, 1990).

EMPLOYMENT AND MAJOR INDUSTRIES

Solano County has approximately 92,300 jobs. The County's job base is comprised of manufacturing and wholesale (12%), agriculture and mining (3%), retail (20%), service (25%) and other jobs (40%). Seasonal fluctuations in employment are evident in both retail and agriculture jobs. Significant job growth is expected in each of these sectors. Manufacturing and wholesale trade employment is forecast almost to triple between 1990 and 2010. Retail trade will almost double in this period, and services employment is expected to increase 86%. These job sectors will have the heaviest growth in Fairfield and Vacaville. Approximately 5,000 military jobs will be lost due to closure of the Mare Island Naval Facility; however, the addition of almost 1,000 people will be required for environmental cleanup. Vallejo will be most impacted by the loss of the military jobs (ABAG, 1993). The mean household income in Solano County in 1990 was \$46,868. This is expected to increase to \$48,800 in 2000 and to \$60,500 in 2010 (ABAG, 1993).

HOUSING

The existing housing stock in Solano County consists of 127,010 units, which includes the following by percentage: 73% single-family; eight percent multi-family with two to four units; 15% multi-family with five or more units; and four percent other, including mobile homes. The vacancy rate is 4.7% for the whole County. Property values in Solano County are lower than other counties comprising the Bay Area (Department of Finance, 1994).

Fairfield, Vacaville, and Vallejo will be the major residential growth areas until 2010. The projected household growth in Solano County yields a deficit of about 2,900 units; the expected mix of these units is not known. Rio Vista has a significant surplus of potential units. The northern County is subject to major infrastructure constraints including water supply and sewage treatment capacity (ABAG, 1993).

C. GOVERNMENTAL INTEGRATED WASTE MANAGEMENT STRUCTURE AND PLAN ADMINISTRATION

This section describes the administrative structure for integrated waste management in Solano County as of March, 1995.

- 1. Each city, and the County for the unincorporated area, is responsible for preparation of its own SRRE, HHWE, and NDFE for planning, implementation, and monitoring of programs and facilities selected in its own SRRE, HHWE, and NDFE. The agencies themselves implement some source reduction, public education, and special waste programs. However, most of the jurisdictions have delegated responsibility for implementing recycling and composting programs, as well as HHW programs, to their franchised haulers, while retaining oversight of these programs. Solano County reimburses the cities where HHW collection events are held for residents from the unincorporated areas who participate in the events. The Cities of Vacaville and Dixon are expecting to contract with the California Prison Industries Authority for recovery of recyclable materials at the proposed Correctional Resource Recovery Facility (CRRF), which is planned to be constructed at the California State Prison in Vacaville. While all of the cities have exclusive franchises for garbage collection, waste hauling in the unincorporated County is not franchised, and is typically done by the hauler used in the nearest City.
- 2. All of the disposal and processing facilities within the County, with the exception of the planned CRRF, are privately owned and operated. The cities and the County either contract for use of the facilities, or leave this up to their franchised service providers. Under the State Map Act, land use authority is reserved to each City, and the County for the unincorporated area; therefore, the jurisdiction within which any solid waste facility is located has land use authority over that facility, regardless of the origin of the waste delivered to the facility.
- 3. The City of Vallejo, The City of Napa, and Napa County are members of the South Napa Waste Management Authority (SNWMA), a JPA that was formed to purchase, close, and maintain the American Canyon Landfill, and to construct and operate a solid waste transfer station in southern Napa County. The City of Vallejo's franchise agreement with Vallejo Garbage Service stipulates that they haul Vallejo's garbage to the transfer station when the

- landfill closes. The transfer station is on a railway line, and solid waste is hauled to Washington State for disposal. The transfer station is operated under contract.
- 4. The City of Vallejo, together with the City of Napa, the County of Napa, and the South Napa Waste Management Authority, have received designation from the CIWMB as the Napa Solano Areas Recycling Market Development Zone (NSA-RMDZ). The application was supported by the Solano County Board of Supervisors and by the City of Fairfield, which are interested in joining the Zone. The SNWMA, of which Vallejo is a member agency, is designated as the administrative lead agency for the NSA-RMDZ. As planned, the NSA-RMDZ will provide incentives for processors and users of secondary materials, to strengthen the local market for recycled materials, and to expand and diversify the local economy.
- 5. To provide guidance and coordination for integrated waste management planning and Countywide program development, and pursuant to provisions of the Integrated Waste Management Act, the Board of Supervisors established the Local Task Force (LTF). The LTF is comprised of representatives from local jurisdictions, recycling and hauling companies, representatives of environmental and community organizations, landfill operators, and County Department of Environmental Management staff. The LTF assisted in the preparation and review of the SRREs, HHWEs, and NDFEs. Current activities of the LTF include oversight of preparation of the Countywide Solid Waste Summary Plan and Siting Element, and development of Countywide diversion programs.
- 6. The County's Department of Environmental Management, Environmental Health Division, serves as the Local Enforcement Agency (LEA) for the unincorporated County and seven cities. The LEA reviews solid waste facility permits, writes solid waste facility plans, and performs periodic site reviews prior to submitting materials to the CIWMB. LEA staff consists of three people, including a supervisor and full-time engineer. The LEA performs this function for the B&J Landfill, Potrero Hills Landfill, Aqua Clear Farms, and the Rio Vista Landfill (no longer accepting wastes).
- 7. The Solano County Environmental Management Department staff is responsible for the preparation of the Countywide Summary Plan and Siting Element. The Local Task Force oversees the preparation of this document. Implementation of the programs planned in the Summary Plan and Siting Element is the responsibility of various agencies. Please refer to Table 4-8 of the Summary Plan, and Table IX.1 of the Siting Element.

A. INTRODUCTION

This chapter describes the existing integrated waste management practices in Solano County, including refuse collection, transfer, and disposal practices; solid waste facilities located within the County; diversion programs already in place; and a summary of market development efforts.

B. <u>CURRENT SYSTEM OF COLLECTION, REMOVAL, AND DISPOSAL OF SOLID WASTE</u>

1. SERVICE AREAS

The service areas in the County are contiguous with the boundaries of the individual jurisdictions, with the following exceptions:

- a. residents of those parts of the unincorporated County nearby or adjacent to cities typically are served by the hauler franchised by the city. The unincorporated areas are not, however franchised at this time. This condition may change: the Board of Supervisors recently adopted a resolution to issue a franchise for the unincorporated pockets of Vallejo, and may at a future date consider franchising other unincorporated areas.
- b. Residents of more remote areas of the unincorporated County are responsible for disposing of their own waste, or individually arranging for collection service.

2. ORGANIZATION OF SERVICES

Within each of the service areas, waste management services are exclusively franchised, with the exception of the unincorporated area. (see Table 3-1) The service area of each hauler is discussed below, along with the services they provide.

Vacaville and Dixon Sanitary Service. This hauler provides service to all of Vacaville and Dixon, and the northern and eastern portions of the unincorporated County. The waste is hauled by truck to B&J Landfill east of Vacaville. Vacaville and Dixon Sanitary Service also operates buy-back and drop-off centers in both Dixon and Vacaville.

Solano Garbage Company. Solano Garbage Company provides service to the Cities of Fairfield and Suisun, the unincorporated area of central Solano County, and Travis Air Force Base. The waste is taken by truck to Potrero Hills Landfill. Solano Garbage Company operates a curbside recycling program in both Fairfield and Suisun. Materials are processed at Solano Garbage Company's intermediate processing center.

<u>Vallejo Garbage Service</u>. Vallejo Garbage Service hauls waste from the City of Vallejo and the surrounding unincorporated County to the Devlin Road Transfer Station in Napa County. Since June 1995, when the Transfer Station opened and replaced the American Canyon Landfill, wastes have been rail-hauled to the Roosevelt Landfill in Washington State for disposal. VGS operates a commercial recycling program, and operates a buy-back, drop-off, and IPF at their facility in Vallejo.

TABLE 3-1: ORGANIZATION OF SERVICES

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			Organization of	DCI VICCS				
		Residential		· Cor	· Commercial/Industrial			
Service Area	Collection	Removal	Disposal	Collection	Removal	Disposal		
Benicia	Franchise	Franchise	Franchise	Franchise	Franchise	Franchise		
Dixon	Franchise	Franchise	Franchise	Franchise	Franchise	Franchise		
Fairfield	Franchise	Franchise	Franchise	Franchise	Franchise	Franchise		
Rio Vista	Franchise	Franchise	Franchise	Franchise	Franchise	Franchise		
Suisun	Franchise	Franchise	Franchise	Franchise	Franchise	Franchise		
Vacaville	Franchise	Franchise	Franchise	Franchise	Franchise	Franchise		
Vallejo	Franchise	Franchise	Franchise	Franchise	Franchise	Franchise		
Unincorporated County/1/	Unfranchised	Unfranchised	Unfranchised	Unfranchised	Unfranchised	Unfranchised		

^{11/} The Board of Supervisors recently decided to institute franchising in unincorporated areas in and around Vallejo.

SOURCE: Environmental Science Associates

BFI Pleasant Hill Bayshore Disposal. This hauler provides service to the City of Benicia and hauls waste by truck to the Acme Fill Transfer Station in Pacheco, Contra Costa County. From there, wastes are hauled to the Keller Canyon Landfill in Contra Costa County. Pleasant Hill Bayshore Disposal (PHBD) also operates a curbside recycling program in Benicia. Materials are processed at PHBD's facility in Contra Costa County. PHBD operates a pilot yard debris collection program in Benicia. Materials are taken to the ACME landfill in Contra Costa County, where BFI has a composting facility.

Rio Vista Sanitary Service. Rio Vista Sanitary Service hauls waste from the City of Rio Vista to Potrero Hills Landfill.

<u>Vallejo Community Organizations Recycling (VALCORE)</u>. VALCORE operates a recycling center in Vallejo, and accepts materials on both a drop-off and buy-back basis.

<u>Recycling Resource</u>. Recycling Resource operates several buy-back centers around Solano County, including centers in Fairfield, Vacaville, and Vallejo. Recycling Resource operates a processing facility located in Fairfield.

<u>Pacific Rim Recycling</u>. Pacific Rim Recycling provides residential curbside collection of recyclables in Vallejo, and services commercial accounts in Benicia and Vallejo. Pacific Rim operates an intermediate processing facility in Benicia, where curbside and commercial materials are delivered.

Boy Scouts of America. The Boy Scouts operate the Vacaville Recycling Center, located at the Vacaville City corporation yard. The Center accepts materials on a drop-off basis, and operates on the first Saturday of each month. The Boy Scouts also collect materials from a curbside route in Leisure Town, a 1,200-unit retirement neighborhood in Vacaville.

3. QUANTITY OF SOLID WASTE COLLECTED, AND FINAL DISPOSITION OF MATERIALS

In Table 3-2, information from the SRREs is compiled to indicate the daily and annual tonnage and volume of solid waste produced in the County. These figures are presented for the calendar year 1994, as projected in the Facility Capacity Components of the SRREs assuming that planned diversion programs are being implemented according to schedule. Salvage occurring at the B&J and Potrero Hills landfills have been worked back into the figures to indicate the amount of solid waste collected. The salvaged tonnage has been credited to the jurisdictions delivering materials to these landfills on a per capita basis. The majority of this material (over 19,000 tons each) is attributed to Vacaville and Fairfield, which somewhat skews the "solid waste collected" figures for these cities in Table 3-2 (without this salvaged material, the projected solid waste disposal amount for Vacaville would be 59,102 tons; for Fairfield, 107,433 tons). In order to convert from tons to cubic yards, a density factor of 1,000 pounds per cubic yard (2.0 cubic yards per ton) is used.

TABLE 3-2: QUANTITIES OF SOLID WASTE COLLECTED, 1994

	T	ons	Cubic Yards/1/		
Jurisdiction	Daily	Annual	Daily	Annual	
Benicia	64	23,013	128	46,026	
Dixon/2/	29	10,439	58	20,878	
Fairfield/3/	352	126,543	703	253,086	
Rio Vista	13	4,643	26	9,286	
Suisun	57	20,678	115	41,357	
Vacaville/2/	218	78,485	436	156,970	
Vallejo	234	84,122	467	168,244	
Unincorporated	45	16,128	90	32,255	
Total	1,011	364,051	2,023	728,102	

/1/ Based on average density of 1000 lbs. per cubic yard.

/3/ Includes material from Travis Air Force Base.

SOURCE: City and County SRREs, Facility Capacity Components

The SRREs for Dixon and Vacaville were written before the installation of scales at the B&J Landfill, and therefore, disposal tonnages are converted from estimated volume of incoming material. Recent scale figures indicate that the actual tonnage for Vacaville should be 72,496 tons per year; for Dixon, the figure is 13,491 tons. This includes several hundred tons from each jurisdiction that are self-hauled to the Yolo County Landfill. (California Prison Industries Assoc., 1994, p. 12)

Table 3-3 indicates where this material goes after it is collected: to landfill, transformed, exported out of the County, or diverted. Diversion in this table indicates materials collected in solid waste collection programs or self-hauled to the landfills, then diverted, for example, through salvage at the landfills.

TABLE 3-3: DISPOSITION OF SOLID WASTE COLLECTED ANNUALLY, 1994

	Total	Landfilled	Transformed	Diverted/1/	Exported
Tons per year Cubic yards per	364,051 728,102	205,007 410,014	0	49,886 99,772	109,158 218,316
year/2/ Percent of total	100%	56%	0%	14%	30%

^{/1/} As reported by B&J Landfill for the year 1994, and by Potrero Hills Landfill for the year 1993.

SOURCE: City and County SRREs, Facility Capacity Components

For materials targeted in diversion programs, Table 3-4 indicates the storage, transportation, and marketing needs and strategies for these materials, according to the existing service providers.

C. PERMITTED SOLID WASTE FACILITIES

Currently, four facilities are permitted to receive solid waste in Solano County: The Rio Vista Landfill (which is no longer accepting wastes, and is expected to undergo formal closure soon), B&J Dropbox Sanitary Landfill, Potrero Hills Landfill, and Aqua Clear Farms, a drilling mud disposal site (drilling muds are not included in the calculation of waste generation in the SRRE for Solano County, where they are produced). Figures 3-1 through 3-5 indicate the location of these facilities.

RIO VISTA LANDFILL

Rio Vista Landfill is located north of the City of Rio Vista near the Sacramento River. The landfill formerly accepted waste from the City of Rio Vista and surrounding unincorporated areas within Solano County. Currently, the landfill accepts no waste, and is expected to undergo formal closure once a closure plan is completed.

^{/2/} Based on an average density of 1000 lbs. per cubic yard.

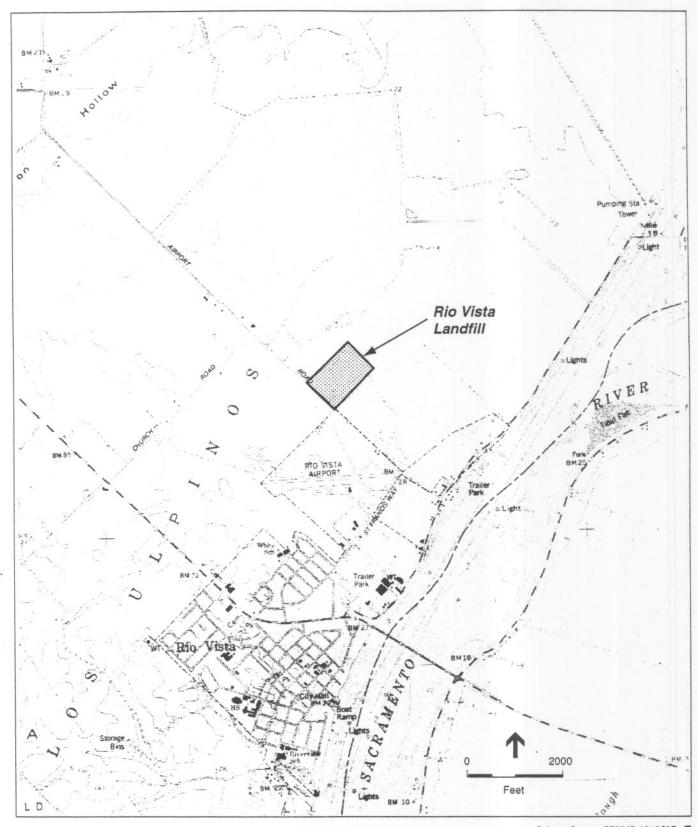
TABLE 3-4: MATERIALS TRANSPORTATION AND MARKETING STRATEGIES (BY SERVICE PROVIDER)

Service Provider/ Material/1/	Current Transportation	Transportation Needs	Marketing Strategy
D: 171 . C			
Rio Vista Sanitation Solid Waste	Direct haul to Potrero Hills Landfill	None identified	N/A
Solano Garbage			
Solid Waste	Direct haul to Potrero Hills Landfill	None identified	N/A
White paper, ONP, OCC, PET, HDPE, Glass	Direct haul to Fairfield Interim Recycling Center	None identified	Marketed by Solano Recycling
UBC, Tin	Direct haul to Fairfield Interim Recycling Center	None identified	Marketed by Solano Recycling; sometimes ships half truckloads
Vacaville and Dixon Sanitary Service			sinps han truckloads
Solid Waste	Direct haul to B&J Landfill	None	N/A
White paper, ONP, OCC	Hauled from drop-off/buy-	identified None	Marketed by Solano
PET, HDPE, UBC, Glass	backs to Fairfield IPF Hauled from drop-off/buy- backs to Recycling	identified None identified	Recycling Marketed by Recycling Resource
Oil	Resource in Fairfield Hauled from the drop-off center by Evergreen Oil	None identified	Reprocessed and marketed by Evergreen Oil
Vallejo Garbage Service	(Newark)		
Solid Waste	Hauled to Devlin Road Transfer Station (Napa	None identified	N/A
White paper, ONP, OCC, Mixed Paper, Magazines, UBC, Glass	County) Direct haul to Vallejo IPF	None identified	Marketed by VGS/Norcal
PET, HDPE, Tin	Hauled to processor in Fairfield Picked-up curbside by VGS	None identified	Marketed by Recycling Resource
Oil	or dropped-off at VGS facility; hauled from VGS	None identified	Reprocessed and marketed by Evergreen Oil
Oil filters, Batteries, Antifreeze, Latex Paint	facility by Evergreen Oil Dropped-off at VGS facility	None identified	Marketed by VGS/Norcal; reprocessed latex paint distributed by VGS Continued

TABLE 3-4: MATERIALS TRANSPORTATION AND MARKETING STRATEGIES (Continued)

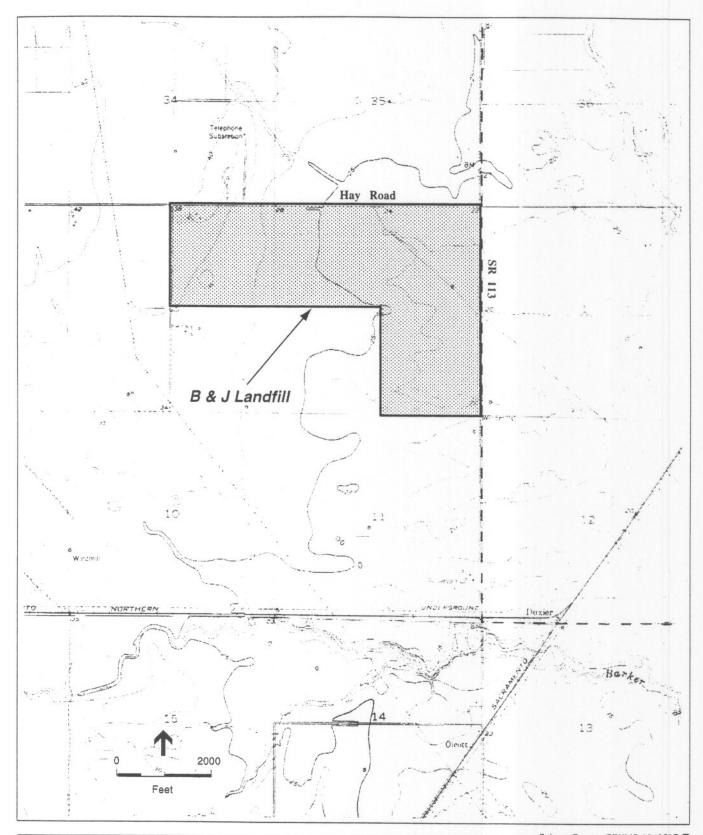
Service Provider/		Transportation	
Material/1/	Current Transportation	Needs	Marketing Strategy
BFI/Pleasant Hill Baysh	iore Disposal		
Solid waste	Direct haul to Potrero Hills and to Acme Transfer Station	None identified	N/A
White paper, ONP, OCC, PET, HDPE, UBC, Glass	Hauled to Pacheco IPF	None identified	Marketed by BFI/PHBD
Tin	Hauled to Pacheco IPF	None Identified	Marketed by BFI/PHBD; may be combined with other hauler to obtain full load.
Oil	Collected curbside and at drop-off, hauled to IPF in Pacheco. Evergreen Oil hauls to reprocessing facility in Newark.	None identified	Reprocessed and marketed by Evergreen Oil
Yard debris	Collected curbside and delivered to Acme Landfill composting facility in Pacheco	None identified	Processed and marketed by Acme composting facility (BFI)
Pacific Rim Recycling			
Mixed paper, White paper, ONP, OCC, Glass, Magazines, PET, HDPE, UBC, Tin	Hauled to Pacific Rim IPF, Benicia	None identified	Marketed by Pacific Rim
Recycling Resource			
White Paper, Colored paper, ONP, UBC, Tin, PET, HDPE	Broker or buyer arranges transport of materials to market	None identified	Recycling Resource markets
OCC, Metals	Hauled by Recycling Resource to market	None identified	Recycling Resource markets
VALCORE Recycling			
White paper, ONP, OCC, Magazines PET, HDPE, UBC, Glass	Hauled to market by Vallejo Garbage Service	None identified	VGS/Norcal markets

^{/1/} Key to material abbreviations: ONP: newsprint; OCC: corrugated cardboard; PET: no. 1 Plastic; HDPE: no. 2 plastic; UBC: aluminum cans; SOURCE: ESA phone survey of service providers, Feb. 1995.



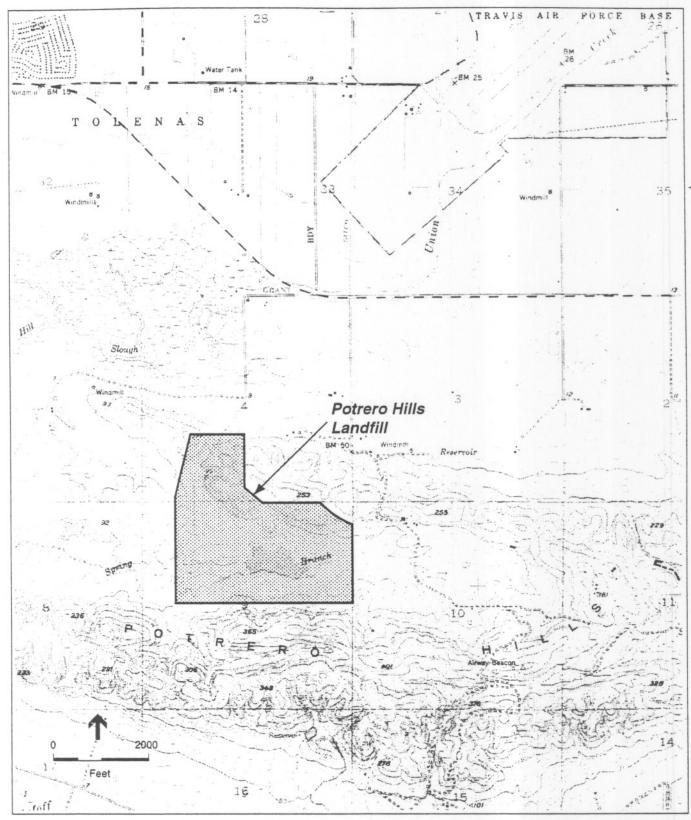
SOURCE: City of Rio Vista Landfill Report
September 1989. Whitley, Burchette and Associates. Inc.
USGS. Rio Vista 7.5' Quadrangle

Figure 3-1
Rio Vista Landfill



SOURCE: B & J Dropbox Sanitary Landfill Master Development Plan DEIR.
Brown and Caldwell. Consultants. December 1992.
USGS. Dozier. 7.5' Quadrangle

Solano County CIWMP / 940527
Figure 3-2
B & J Dropbox Sanitary Landfill

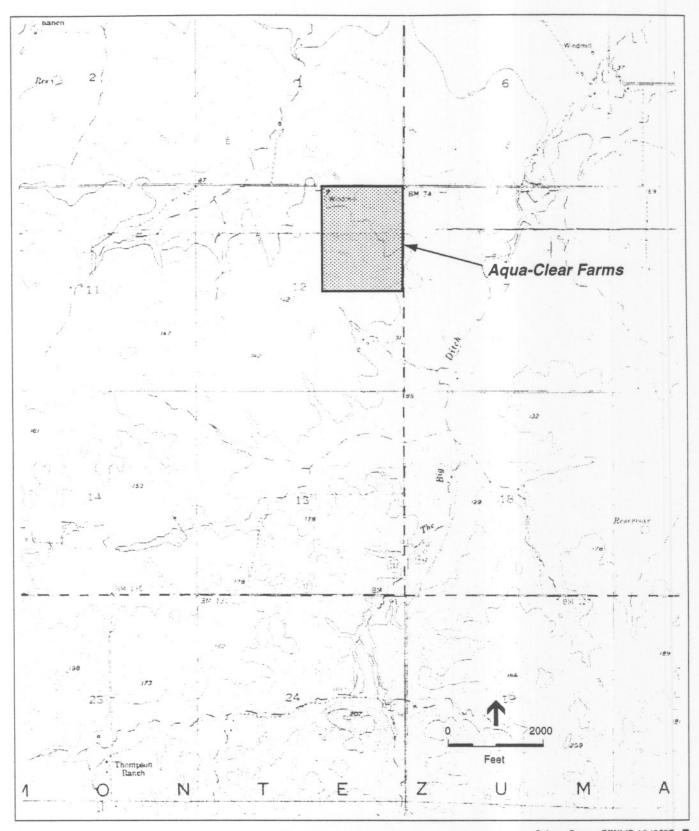


SOURCE: DEIR for an Amendment to the Potrero Hills Landfill Land Use Permit.

Marsh Development Permit. and Revision to the Solid Waste
Facilities Permit. Jones and Stokes. September 1993.

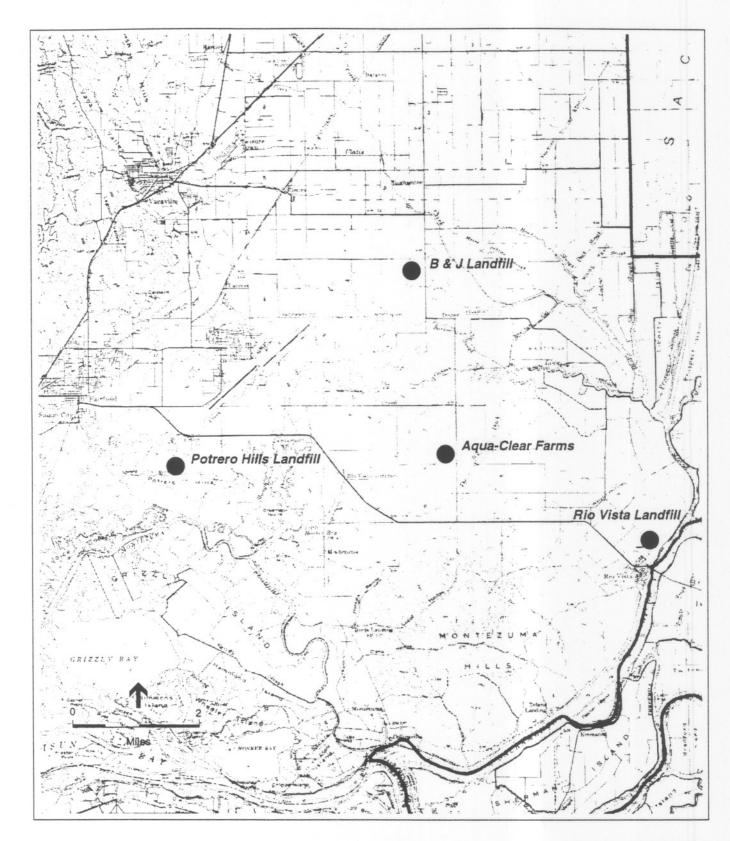
USGS. Denverton. 7.5' Quadrangle

Figure 3-3
Potrero Hills Landfill



SOURCE: Report of Disposal Site Information. Harding Lawson Associates. October 1990 USGS. Birds Landing. 7.5" Quadrangle

Figure 3-4
Aqua-Clear Farms, Inc.
Drilling Muds Landfill



SOURCE: Environmental Science Associates

Solano County CIWMP / 940527

Figure 3-5
Locations of Permitted
Solid Waste Facilities

B&J LANDFILL

The B&J Landfill is located on Hay Road west of Highway 113. The landfill serves the north and northeastern portion of Solano County.

POTRERO HILLS LANDFILL

Potrero Hills Landfill is located approximately four miles east of Suisun City off Kildeer Road about one mile south of Route 12. The central and southern portion of Solano County disposes of its waste at the Potrero Hills Landfill.

AQUA CLEAR FARMS

Aqua Clear Farms is restricted to accepting drilling mud for disposal. It is located at Flannery Road and Highway 113 in the southeastern portion of Solano County.

D. EXISTING WASTE DIVERSION FACILITIES

The waste diversion facilities listed in this section are exempt from a Solid Waste Facility Permit, or have been granted an exclusion from this requirement. For a description of planned, proposed, and permitted non-disposal facilities, see Chapter 4 of this Summary Plan.

CENTRAL SOLANO COUNTY INTERMEDIATE PROCESSING FACILITY

The Central Solano County Intermediate Processing Facility (IPF) is located in the City of Fairfield approximately four miles northeast of Interstate 80, at 2901 Industrial Court, Fairfield, California. The IPF processes material from residential curbside recycling programs, a small amount of source-separated material from commercial accounts, and from a buyback center. The 2.5-acre facility is designed to process a peak throughput of 50 tons per day. In 1993, the diversion rate achieved through IPF operations was approximately 3.5% for the City of Fairfield. The participating jurisdictions include the City of Fairfield, City of Suisun City, Travis Air Force Base, and the unincorporated County.

PACIFIC RIM RECYCLING INTERMEDIATE PROCESSING FACILITY

The Pacific Rim Recycling Intermediate Processing Facility (IPF) is owned and operated by Pacific Rim Recycling. The IPF is located northeast of the junction of Highways 680 and 780 west of Suisun Bay. The IPF is capable of handling 2,000 tons of material per month, diverting about seven percent of Vallejo's waste by 2000. The facility is expected to divert one percent of total Solano County wastes. Materials processed include aluminum, tin, clear and colored glass bottles and jars, newspapers and brown paper, corrugated cardboard, plastic #1 PET containers, and non-colored #2 HDPE bottles. The City of Vallejo and several cities in Contra Costa County use the IPF.

VALLEJO GARBAGE SERVICE INTERMEDIATE PROCESSING FACILITY

The Vallejo Garbage Service Intermediate Processing Facility (IPF) and N & L Garbage Service (a separate billing entity of Vallejo Garbage Service) own and operate the IPF at a waste management complex located on Broadway Street in Vallejo. The facility handles about 600

tons of materials per month; the maximum capacity is unknown, but the City expects it will be adequate to divert 15% of Vallejo's recyclables through year 2000. About 96% of material received is generated within the City of Vallejo. The facility handles materials from commercial accounts in Solano County and the City of Vallejo.

BFI - PLEASANT HILL BAYSHORE DISPOSAL, MATERIALS RECOVERY FACILITY

The BFI Materials Recovery Facility (MRF) is located on a 5-acre site in Contra Costa County in the community of Pacheco. The facility is operated by BFI - Pleasant Hill Bayshore Disposal which is the franchised hauler for the City of Benicia. The MRF is capable of handling 100 tons of recyclables per day. Materials processed at the MRF include aluminum, tin, corrugated cardboard, newspaper, whitepaper, glass, and #1 PET and #2 HDPE plastics.

VALLEJO COMMUNITY ORGANIZATIONS RECYCLING (VALCORE)

VALCORE operates a drop-off and buy-back center located at 38 Sheridan Street in Vallejo. The center is located on approximately 1/5 of an acre of land, owned by Vallejo Garbage Service and leased to the City of Vallejo for \$1 per year; the City in turn donates the space to VALCORE. VALCORE collects approximately twelve tons of material each month. Materials accepted include CRV beverage containers, newspaper, cardboard, chipboard, magazines, computer paper, office paper, mixed paper, glass, #1 PET and #2 HDPE plastics, aluminum scrap, books, office furniture and supplies, and other reusable items. Materials are minimally processed. Most materials are marketed to VGS.

BOY SCOUTS RECYCLING CENTER

The Boy Scouts of America operate a multi-material drop-off center at the City corporation yard in Vacaville. The center is open the first Saturday of each month, and accepts newspaper, glass, aluminum, #1 PET plastic bottles, cardboard, and magazines.

RECYCLING RESOURCE

Recycling Resource operates a buy-back, drop-off, and intermediate processing center in Fairfield. the facility is located at 2490 Cement Hill Road, and accepts and processes glass, aluminum cans, # 1 PET and #2 HDPE plastic bottles, as well as non-ferrous metals. Recycling Resource has several buy-back centers located throughout Solano County. Materials from these centers are processed at the Cement Hill Road facility.

E. MARKET DEVELOPMENT ACTIVITIES

The development of markets adequate to ensure stability of the Integrated Waste Management System is a critical issue facing Solano County jurisdictions.

1. RECYCLING MARKET DEVELOPMENT ZONE APPLICATIONS

A key recycling economic development initiative of the CIWMB has been the establishment of Recycling Market Development Zones (RMDZs). Currently, the City of Vallejo is a participating agency in the Napa Solano Areas Recycling Market Development Zone (NSA RMDZ). Implementation of the NSA RMDZ will provide a critical first step in the direction of

area jurisdictions working together to approach recycling-based economic development on a regional basis. Napa and Solano Counties share a unique interdependent infrastructure. This interdependence will be highlighted by the closure of the Mare Island Naval Shipyard (MINSY). A critical component of the NSA RMDZ is the participation of the Mare Island Base Conversion Program, administered by the City of Vallejo. This program will allow Vallejo to focus strategically on the development of local recycling enterprises in a military base closing as a vehicle for economic renewal. This RMDZ was designated by the California Integrated Waste Management Board during the fourth designation cycle.

Several other cities in Solano County are interested in expanding the RMDZ to include other areas of Solano County. A resolution was adopted in support of the RMDZ by the Solano County Board of Supervisors, the City of Fairfield City Council, and the Solano County Local Task Force. The plan for the RMDZ emphasizes targeting specific materials, including mixed waste paper, compostable materials, high density polyethylene (HDPE), and unsorted plastics.

2. RECYCLED PRODUCT PROCUREMENT

"If you aren't buying recycled, you aren't recycling" is a common theme in recycling market development. Any community that is serious about bettering the market for recycling materials must buy recycled products. By enacting procurement policies, a local government will also set an example for residents and businesses.

All jurisdictions in Solano County selected city and County recycled product procurement as a desired program in their SRREs. While there is a desire to formalize these efforts, limited progress has been made on the part of individual jurisdictions. Recycled paper office products are being purchased by a few of the jurisdictions, whether or not a formal policy is in place. Some of these products include office file folders, tablets, envelopes and stationary, forms, and janitorial paper products. There may be opportunities for the individual jurisdictions to work together to buy recycled products cooperatively by pooling purchases into a single bid. This could be coordinated by a Countywide meeting of solid waste and procurement specialists.

3. COUNTY'S ROLE IN MARKET DEVELOPMENT

The County can take a leadership in developing markets for recycled materials by serving as the central agency responsible for gathering and coordinating information among the jurisdictions, and providing technical assistance in implementing recycling market development efforts. The responsibilities of this role could include:

- Creating and coordinating a Countywide "Market Development Team." The purpose is
 to facilitate communication between solid waste professionals, procurement specialists,
 economic development specialists, and public works officials.
- Providing technical assistance to spearhead expansion of the Napa Solano Areas
 Recycling Market Development Zone, to coordinate an ongoing Countywide effort to
 attract secondary materials end-users to the area, and to assist existing manufacturers to
 substitute secondary materials for their feedstocks.
- Developing a comprehensive Buy-Recycled policy for adoption by local governments and providing technical assistance on recycled products and product vendors.

A. INTRODUCTION

This chapter summarizes the programs and facilities identified in the SRREs, HHWEs, and NDFEs of the eight jurisdictions of Solano County, both those identified as already existing at the time of the writing of the documents, and those identified as selected or contingency programs. This chapter furthermore establishes a method for evaluating programs and facilities for integration as Countywide programs and facilities, identifies several programs as candidates for Countywide integration, and analyzes their suitability for integration. Those programs that are selected for Countywide integration are then described, in terms of their function, administrative structure, cost, and schedule for implementation.

B. SUMMARY OF PROGRAMS SELECTED IN THE SRRES

This section identifies and briefly describes programs existing at the time of writing of the SRREs, and programs selected for implementation in those documents. This information is also summarized in Tables 4-1 through 4-5. Information on the current status of diversion programs is presented in Appendix A.

1. SUMMARY OF SOURCE REDUCTION PROGRAMS SELECTED IN THE SRREs

(See also Table 4-1.)

a. Existing Programs

The following programs were identified in the SRREs as existing at the time the documents were written:

<u>Disposable Diapers</u>. Four diaper laundering services serve Solano County. All of the jurisdictions but Fairfield claimed some diversion through residents' use of cloth diapers.

<u>Beverage Bottle Washing for Refilling</u>. Both wine and beer bottles are washed and reused in significant quantities in Solano County. All of the jurisdictions claimed some diversion through bottle re-use.

<u>Appliance Recovery and Resale</u>. Reconditioning of used appliances for resale is a source reduction activity noted by all of the jurisdictions except Dixon.

<u>Double-Sided Copying</u>. All of the jurisdictions noted that double-sided copying occurs within their boundaries, and claimed some diversion through this activity.

Food Waste as Animal Feed. Fairfield, Suisun City, Vacaville, and Solano County noted that food waste is used as animal feed. This is considered a source reduction activity.

TABLE 4-1: SUMMARY OF SOURCE REDUCTION PROGRAM IDENTIFIED IN THE SRRES

Program	Benicia	Dixon	Fair- field	Rio <u>Vista</u>	Suisun	Vaca- ville	Vallejo	Uninc. County
Use of Diaper Services	Е	Е		Е	Е	Е	Е	Е
Use of Returnable Bottles (wine, beer, and water)	Е	Е	Е	Е	Е	Е	Е	Е
Appliance Refurbishing and Reuse	Е		Е	Е	Е	Е	Е	Е
Double-Sided Copying	Е	Е	Е	Е	. Е	Е	Е	Е
Food Waste as Animal Feed			Е		Е	Е		Е
Clothing Re-use	Е	Е	Е	Е	Е	Е	Е	Е
Disposal Fee Surcharge	X	X	X	Х	X	X	X	X
Drought-Resistant Landscaping Ordinance	X	X/1/	X	X	X	X,E	X	Х
In-house (governmental) Source Reduction	X	Х	X	X	X	X	X	X
School Programs	X	X	X	Х	X	X	X	X
Waste Surveys (audits)	X	X	X	X	Х	Х	X	X
Variable Can Rates	X		Х	Х	X	X	X	X
Backyard Composting Education	X,E	X	X	Х	X	X	X	X
Awards for Commercial and Industrial Source Reduction	X		X	Х	X	X	Х	X
Regional Waste Exchange	X	X	X	X	X	X	X	Х
Technical Assistance to Businesses	X	X	Х	Х	X	Х	X	X
Promote Use of Canvas Shopping Bags							X	

^{/1/} Dixon planned to have a drought-resistant landscaping ordinance only for commercial property, but adopted an ordinance that includes residential landscaping.

Key to Symbols:

E = Existing program; X = Selected program; C = Contingency program.

SOURCE: City and County SRREs

TABLE 4-2: SUMMARY OF RECYCLING PROGRAMS IDENTIFIED IN THE SRRES

Program	<u>Benicia</u>	Dixon	Fair- field	Rio <u>Vista</u>	Suisun	Vaca- ville	Vallejo	Uninc. County
Wood Waste Chipping and Mulching	Е							
Mobile Buy-back							E/1/	
Schools	Е	P	Е			P	Е	
Office Paper	Е	P	Е		Е	P	Е	
Commercial Cardboard	Е	Е	E	Е	Е	Е	Е	
Tire Recycling	Е			Е				Е
Landfill Salvage	X	X	X,E	X,E	X,E	X,E	X,E	X,E
Concrete and Inert Solids	Е	Е	Е	Е	Е	Е	X	Е
Dead Animal Rendering	Е	Е	Е	Е	Е		Е	Е
Military Bases			Е					
Single Family Curbside	X,E	X	Е	Х	Е	X,E/2/	X	Х
Multi-Family Collection	X,E	X	Е	X	Е	X	X,E	Х
Buy-Back	Е	X,E	X,E	X,E	X,E	X,E	X,E	X,E
Drop-off	Е	X,E	X,E	X,E	X	X,E	X,E	X
Marina/Marine Recycling							X	
Volume-Based Rates	X,E		X	X	X	X	X	X,E
Modify Zoning and Building Codes	X	X	Х	Х	X	X	Х	X
Commercial Collection	X,E	X	X,E	X,E	X,E	X	X,E	X,E
Assistance to Commercial/Industrial Generators	Х	X	X	X	Х	X	Х	X

(Continued)

TABLE 4-2: SUMMARY OF RECYCLING PROGRAMS (Continued)

<u>Program</u>	Benicia	Dixon	Fair- field	Rio <u>Vista</u>	Suisun	Vaca- ville	<u>Vallejo</u>	Uninc. County
Grants and Loans for Equipment						X,E		
City and County Office Recycling and Procurement	X,E	X	X	Х	X	Е	X	X,E
Support for Non-Profit and Small Business Recyclers	X	X	X	X	X	X	X	X
Park and Recreation Areas								
Commercial and Industrial Dump and Pick	X,C,E	С	С				С	С
Develop Intermediate Processing Facility	X		X					
Recycling Market Development Zone Application	Х	-	X	X	Х	X	X	X
Drop-off at Landfills							X	Е

^{/1/} Program has been discontinued.

Kev to Symbols:

E = Existing program; X = Selected program; C = Contingency program.; P = Program not selected in SRRE, but subsequently planned for.

SOURCE: City and County SRREs

Clothing Donated and Resold. All of the jurisdictions claimed some diversion through clothing donation and resale.

Backyard Composting Information. The City of Benicia provides information on backyard composting to residents.

b. Programs Selected in the SRREs

The following programs were selected for implementation in the SRREs. Please refer to Appendix A for a directory of programs that have been implemented.

^{/2/} Existing program was not city-wide.

All eight SRREs state the intention of the jurisdictions to work together to implement source reduction programs. Pilot programs are planned to be conducted in each of the jurisdictions to test programs selected by most or all of the jurisdictions. A list of the proposed pilot programs and their host communities appears below.

<u>Surcharge at Disposal Facilities</u>. All of the jurisdictions selected the imposition of surcharges at disposal facilities to discourage unnecessary disposal, particularly to discourage disposal of yard waste and wood waste by self-haulers. Revenues generated would be used to fund other diversion programs. This program must be implemented by the County, as both landfills fall within its jurisdiction.

<u>Drought Resistant Landscape Ordinance</u>. All eight jurisdictions selected this program in order to encourage residents to produce less yard waste and to use less water.

<u>In-house Source Reduction at City and County Offices</u>. All of the jurisdictions selected for implementation a program to replace disposable products with reusable products, to purchase repairable products, and to increase the efficiency of the use of paper and other materials. The County started a white office paper recycling program in 1988. Other targeted materials include other paper products, disposable cups and serviceware, plastic and glass containers, and tires.

<u>School Programs</u>. All of the jurisdictions selected a program to work with the schools to include information on source reduction in elementary school curricula, and to develop student projects that demonstrate source reduction principals and practices. Targeted materials include food and yard wastes, paper products, and beverage containers.

<u>Waste Surveys</u>. All eight jurisdictions selected a program to perform waste surveys (waste audits) for commercial establishments on a voluntary basis. The programs will encourage and educate businesses to source reduce, recycle, and compost. Individual businesses will target particular waste types.

<u>Quantity-Based Hauling Fees (Variable Can Rates)</u>. All of the jurisdictions, with the exception of Dixon, selected this program, intended to send a price signal to waste generators to encourage them to reduce the amount of waste they dispose. The programs will consist of revising refuse collection rate structures so that residents are charged according to the volume of waste they produce. This program targets all materials, but has the greatest effect on high-volume, low-density materials such as plastics.

<u>Upstream Yard Waste Management Education and Demonstration Site (Backyard Composting Education)</u>. All eight jurisdictions selected a backyard composting education program. A significant portion of the County waste stream consists of yard debris and other materials that can easily be managed at the source of generation. These programs will assist residents in establishing their own composting systems, and in employing other yard waste source reduction strategies. Targeted materials include yard waste and food waste.

<u>Awards for Commercial and Industrial Generators</u>. All of the jurisdictions, with the exception of Dixon, selected an awards program to provide public recognition for those local businesses that promote and practice waste prevention. This program does not target particular materials.

<u>Participation in a Regional Waste Exchange</u>. All of the eight jurisdictions selected for implementation a program to set up a regional waste exchange. A regional waste exchange will help match producers of reusable waste materials with users of the materials. This program does not target particular materials.

<u>Technical Assistance to Businesses</u>. All eight jurisdictions selected a program that will provide technical assistance to businesses to assist and encourage them to reduce waste. Methods that may be employed include establishing an information hotline, producing and distributing literature, public speaking to various groups, fact sheets for certain types of waste generators, distributing waste self-audit guides, and informing businesses of the availability of waste exchanges. This program targets a broad array of materials.

<u>Promote Canvas Shopping Bags</u>. The City of Vallejo selected the promotion of canvas shopping bags as a source reduction program. This program targets plastic and paper bags.

2. SUMMARY OF RECYCLING PROGRAMS SELECTED IN THE SRRES

a. Existing Recycling Programs

The following programs were identified in the SRREs as existing at the time the documents were written.

<u>Buy-Backs</u>. All of the jurisdictions have existing buy-back facilities, ranging from small facilities located in supermarket parking lots that accept only California Redemption Value beverage containers, to more comprehensive facilities that accept other materials, such as paper grades, ferrous and non-ferrous metals, and non-CRV containers. Vallejo Garbage Service (VGS) formerly operated a mobile buy-back operation in Vallejo.

<u>Drop-Offs</u>. The SRREs identify drop-off facilities in all of the jurisdictions with the exception of Dixon, Suisun City, and the unincorporated County. Drop-offs typically accept some or all of the following materials: CRV containers, various paper grades, ferrous and non-ferrous metal, and non-CRV glass and plastic containers.

<u>Single Family and Multi-Family Curbside Programs</u>. As of the writing of the SRREs, several cities had single family and multi-family curbside programs: Benicia, Fairfield, Suisun City, and Vacaville. The Vacaville program served only one area of the City. Most programs collect aluminum, glass, and plastic containers, and newspaper.

Collection of Recyclables from Commercial Establishments. All of the jurisdictions, except Dixon and Vacaville, reported in their SRREs some collection of recyclables from commercial establishments. In addition, all of the jurisdictions, with the sole exception of the unincorporated area, reported collection of cardboard from supermarkets and other large commercial generators. Four jurisdictions, Benicia, Fairfield, Suisun City, and Vallejo, reported collection of white office paper from commercial establishments. Pacific Rim recycling in Benicia operates a processing facility for sorting and processing mixed loads of commercial wastes. VGS provides collection of aluminum beverage containers from Marine World Africa USA in Vallejo

<u>School Programs</u>. The SRREs for the Cities of Benicia, Fairfield, and Vallejo identify recycling of materials from area schools, including paper and beverage containers.

<u>Tires</u>. Gro Strait Products in Benicia recycles approximately 100,000 tires per year from throughout the Bay Area, including Solano County, to make straps for supporting trees.

<u>Landfill Salvage</u>. All of the jurisdictions, except Benicia and Dixon, reported salvaging of self-haul loads at the County's landfills. Presumably, salvage activities at the County's landfills affect all jurisdictions delivering material to these facilities. Salvaged materials include wood and brush, concrete and other inert materials, soil, tires, and metal.

<u>Concrete and Inert Solids</u>. Potrero Hills Landfill and Syar Industries in Vallejo both recycle asphalt and concrete. All of the jurisdictions claimed some diversion through this activity in their SRREs. Since the SRREs were written, however, the law has changed and disallowed certain materials from "counting" toward diversion goals. This includes inert solids, unless they meet certain requirements. Presently, the County and several of the cities are waiting to hear from the CIWMB regarding whether the diversion they claimed from concrete and other inerts recycling can be credited toward their diversion goals.

<u>Dead Animal Rendering</u>. All of the jurisdictions, with the exception of Vacaville, identify rendering of dead animals as a recycling activity. The dead animals come from the Solano County Animal Shelter, and are rendered into bone meal and tallow.

<u>Military Bases</u>. Travis Air Force Base in Fairfield has its own recycling program that has operated for several years. The program collects cardboard, computer paper, white office paper, and aluminum cans. Fairfield's SRRE states that the Base is considering expanding the program to include other materials.

<u>Volume-Based Refuse Rates</u>. The City of Benicia was the only jurisdiction reporting a variable rate structure in their SRRE. However, rates for refuse collection in the unincorporated area are volume-based.

<u>City and County Offices</u>. The City of Benicia was also the only jurisdiction that identified an existing in-house recycling program, targeting paper and other materials, and a recycled materials procurement program, which targets recycled paper products.

b. Recycling Programs Selected in the SRREs

The following programs were selected for implementation in the SRREs. Please refer to Appendix A for a directory of programs that have been implemented, and for materials accepted by each implemented program.

<u>Single Family and Multi-Family Collection</u>. All of the eight jurisdictions plan to maintain, implement, or expand single family and multi-family collection of recyclable materials. Most programs collect, or plan to collect, aluminum and tin cans, plastic beverage containers, polystyrene, mixed paper, newspapers, and cardboard.

Expand Existing Buy-Backs and Drop-Offs. All of the jurisdictions, with the exception of Benicia (which already has a large number of drop-offs and buy-backs), plan to establish new or expanded drop-off and buy-back centers, both to give residents additional choices for recycling, and to accept materials that curbside programs do not handle. Drop-offs will be the primary means of providing recycling service for some residents of the more sparsely populated portions of the unincorporated area. Buy-backs typically accept CRV beverage containers, as well as some other high-value materials, such as cardboard and non-ferrous scrap metals. Drop-offs typically accept these materials as well as other paper grades and containers.

<u>Volume-Based Charges</u>. All of the jurisdictions, with the single exception of Dixon, plan to implement volume-based refuse rates in the medium term or sooner, to encourage residents to participate in recycling and other diversion programs. The City of Benicia and unincorporated Solano County already had volume-based rates at the time the SRREs were written. These programs target all recyclable materials accepted in local recycling programs, as they encourage residents to recycle, rather than place materials in the garbage can.

<u>Programs Serving the Commercial and Industrial Sectors</u>. Each of the eight jurisdictions selected programs to increase recycling in the commercial and industrial sector, including modifying zoning and building codes to require adequate space for storage of recycling in new construction, encouragement and assistance to commercial and industrial generators to source-separate recyclable materials, and establishment of regular routes serving businesses with commingled collection service. These programs target various paper grades, glass, metal, as well as other materials. All of the jurisdictions selected implementation or expansion of inhouse recycling and recycled product procurement programs, in order to set an example for residents and businesses. These programs target various paper grades and beverage containers.

<u>Grants and Loans</u>. Vacaville and Suisun City will sponsor loans and grants for recycling equipment, if funds are available. Grants could support new recycling or source reduction of products or packaging.

<u>Support for Non-Profit and Small Business Recyclers</u>. Each of the eight jurisdictions express as policy their intent to include small businesses and community-based non-profits in the development of new recycling programs as a means to foster community and economic development and technological innovation.

<u>Salvage of Self-Haul Loads</u>. All of the jurisdictions selected as a program the encouragement of salvage of self-haul loads at landfills. White goods, wood waste, concrete, asphalt, and other materials would be targeted.

<u>Market Development Program</u>. All of the jurisdictions, with the exception of Dixon, plan to apply for designation as a Recycling Market Development Zone.

c. Facilities Selected in the SRREs

<u>Intermediate Processing Facilities</u>. The City of Benicia and the City of Fairfield both intend to establish an intermediate processing facility (IPF) to handle source-separated and commingled recyclables.

<u>Commercial MRF</u>. Several jurisdictions (Dixon, Fairfield, Vallejo, and Solano County), selected as a contingency measure the establishment of a facility to separate recyclables from mixed commercial waste. This contingency program was to have been reevaluated in the medium term. Benicia already has a mixed commercial waste recovery program.

3. SUMMARY OF COMPOSTING PROGRAMS SELECTED IN THE SRRES

(See also Table 4-3.)

a. Existing Programs

The following programs were identified in the SRREs as existing at the time the documents were written:

<u>Chipping of Landscaping Debris</u>. Benicia, Dixon, Fairfield, Vacaville, and Vallejo indicated that their parks or landscaping departments are chipping green waste for use as mulch.

<u>Organic Materials Sold and Used as Soil Amendment</u>. Soil vendors in Solano County process and blend a variety of organic materials such as mushroom compost, sawdust, manure, and rice hulls. Residents and businesses purchase some of the resulting product. The degree of processing varies depending on the feedstock and the intended market. Often, the product is uncomposted or only partially composted.

b. Programs Selected in the SRREs

The following programs were selected for implementation in the SRREs. Please refer to Appendix A for a directory of programs that have been implemented.

<u>Christmas Tree Chipping and Use as Mulch</u>. All eight jurisdictions selected this option; Benicia, Rio Vista, Suisun City, Vacaville, and Vallejo were already providing this service for residents. This program consists of collection of Christmas trees through drop-off or curbside collection programs in the weeks after Christmas, and shredding and screening the trees to produce mulch. The product is distributed in bulk.

<u>Wood Chipping and Use as Mulch</u>. All of the jurisdictions selected this option, which entails collection of woody yard waste and scrap lumber at drop-off locations, and shredding and screening the material to produce mulch. Operation will be year-round.

<u>Yard Waste Curbside Collection and Composting</u>. All eight jurisdictions selected yard waste curbside collection and composting. This program entails periodic collection of yard debris and woodwaste from residents, transport of material to a composting facility, and production of compost and other soil products. Benicia has already instituted a pilot yard debris collection program.

<u>Food Waste Composting</u>. Food waste collection and composting was selected by all jurisdictions but Fairfield; Vacaville selected this program as a contingency. This program involves adding foodwaste to curbside collection and composting of yard waste.

<u>Sludge Composting</u>. Sludge composting was selected as a contingency program by Benicia, Fairfield, Rio Vista, and Suisun City. Sludge composting involves mixing digested biosolids with a suitable bulking agent, and aerobically composting the material.

TABLE 4-3: SUMMARY OF COMPOSTING PROGRAMS IDENTIFIED IN THE SRRES

Program	Benicia	Dixon	Fair- field	Rio <u>Vista</u>	Suisun	Vaca- ville	Vallejo	Uninc. County
Chipping of Park and Landscaping Debris	Е	Е	Е			Е	Е	
Organic Materials Sold and Used as Soil Amendments	Е	Е	Е	Е	Е	Е	Е	Е
Christmas Tree Chipping and Use as Mulch	X,E	X	X	X,E	X,E	X,E	X,E	X
Wood Chipping and Use as Mulch	X	Х	X	X	Х	X	X	X
Yard Waste Curbside Collection and Composting	X	X	X	X	X	X	X	X
Food Waste Composting	X	X		Х	X	С	X	X
Sludge Composting	С		C/1/	C/2/	C/1/			
Sludge Land Spreading	С		C/1/	C/2/	C/1/	Е		
Mandatory Collection Ordinance	С	С	С	С	С	С	С	С
City/County Procurement of Compost Products	X	X	X	X	Х	X	Х	X
Revision of Regulations to Promote Use of Compost Products	X	Х	X	X	Х	X	X	X
Use of Compost as Alternative Daily Cover	X	X	X	X	X	X		X

^{/1/} The Fairfield-Suisun Sewer District was to evaluate these alternatives further after the regulation of the beneficial use of biosolids became clearer.

Kev to Symbols:

E = Existing program; X = Selected program; C = Contingency program.

<u>Sludge Land Spreading</u>. Vacaville and Vallejo already landspread their sludge; Dixon stores its sludge in lagoons, and will apply it to land when enough sludge has accumulated. Sludge land spreading, which involves spreading digested sewage sludge on land, either to the surface of the land or plowing it into the soil, was selected as a contingency program by Benicia, Fairfield, Rio Vista, and Suisun City.

¹²¹ To be further evaluated by the Rio Vista WWTP.

c. Policies Selected in the SRREs

<u>Mandatory Collection Ordinance</u>. All eight jurisdictions selected this program as a contingency program. A mandatory ordinance would require separation of yard debris from refuse, and would prohibit inclusion of yard debris with mixed refuse.

<u>Procurement of Compost Products</u>. All of the jurisdictions selected this policy alternative, which involves establishing policies for local governments to purchase and use compost and compost products in their own practices, and to encourage or require use of compost products in government-sponsored projects.

<u>Revision of Regulations to Promote Use of Compost Products</u>. All eight jurisdictions chose to revise their building codes, specifications, and other regulations to permit and to encourage the use of compost and mulch derived from refuse in new landscaping.

<u>Use of Compost as Alternative Daily Landfill Cover</u>. All of the jurisdictions except Vallejo chose to use compost as an alternative daily cover for landfills.

4. SUMMARY OF SPECIAL WASTE PROGRAMS SELECTED IN THE SRREs

(See also Table 4-4.)

<u>Sewage Sludge Composting</u>. As mentioned above, Benicia, Fairfield, Rio Vista, and Suisun City selected sewage sludge composting as a contingency program. Sewage sludge is considered a type of special waste.

<u>Discouraging the Use of Automobiles to Decrease Tire Waste</u>. All of the jurisdictions selected as a program a public education and information campaign to reduce the use of automobiles, and therefore to prolong the life of tires.

<u>Encourage Diversion of Tires by Commercial Haulers</u>. All of the jurisdictions selected as a program contacting haulers and collectors of used tires to inform them of diversion options, and to modify tipping fees to discourage disposal of whole tires at landfills. Since the SRREs were written, new state regulations were established prohibiting landfill disposal of whole tires.

Encourage Spaying and Neutering of Pets. All of the jurisdictions selected the program option of encouraging residents to spay and neuter their pets, in order to reduce the population of animals and the generation of dead animal carcasses.

Use of Industrial Lime Sludge in Cement Making. Benicia selected this program. Lime sludge is broduced in large quantities by the Exxon oil refinery in Benicia, and can be used in cement baking. The city will support the use of lime sludge as a feedstock for the production of cement.

Dly sewage sludge to land, and plan to continue to do so.

TABLE 4-4: SUMMARY OF SPECIAL WASTE PROGRAMS IDENTIFIED IN THE SRRES

Program	Benicia	Dixon	Fair- field	Rio <u>Vista</u>	Suisun	Vaca- ville	Vallejo	Uninc. County
Sewage Sludge Composting	С		C/1/	С	C/1/	P		
Tires: Discourage Auto Use	X	Х	X	X	X	X	X	X
Tires: Evaluate Use of Used Tires on City/County Vehicles				Х				X
Encourage Diversion of Tires by Commercial Haulers	X	Х	X	X	Х	X	X	Х
Encourage Spaying and Neutering Pets	X	Х	X	X	Х	X	X	Х
Use Industrial Lime Sludge in Cement Making	Х							
Sewage Sludge Landspreading		X,E				X,E	X,E(2)	
Drilling Mud Options Study								X

⁽¹⁾ Composting and landspreading as disposal alternatives to be evaluated by Fairfield-Suisun Sewer District

Key to Symbols:

E = Existing program; X = Selected program; C = Contingency program.

SOURCE: City and County SRREs

<u>Drilling Mud Options Study</u>. Large quantities of drilling mud are produced in the unincorporated County as a result of natural gas drilling activity. These muds are currently disposed of at Aqua Clear Farms, a permitted solid waste disposal facility. The County selected as a program performing a study to evaluate diversion options for drilling muds.

⁽²⁾ Sewage sludge is not counted as generated waste in the Vallejo SRRE in accordance with Section 41781.1 of the California Public Resources Code.

TABLE 4-5: SUMMARY OF EDUCATION AND PUBLIC INFORMATION PROGRAMS IDENTIFIED IN THE SRRES

<u>Program</u>	Benicia	Dixon	Fair- field	Rio <u>Vista</u>	Suisun	Vaca- ville	Vallejo	Uninc. County
Existing Programs								
News Conferences			Е					
Articles in Local Newspapers/Newsletters	Е	Е	Е	Е	Е	Е	Е	Е
Recycling Services Brochure/Flyer	Е		Е			Е	Е	
Recycling Video	Е							
Cable Television Programming	Е	Е	Е					
Radio/Television Advertisement	Е		E		Е	Е	Е	
Lobby/Event Displays			E					
Council Presentations			E					
Newspaper Advertisement		Е	Е		Е	Е		
New Utility Customer Recycling Information Packet			Е					
Recycling Hotline			Е			Е		
Community Group Outreach/Presentations/Tours		Е	Е			Е	Е	Е
Backyard Composting Workshop(s)		E				E		
School Outreach/Presentations/Tours	Е	Е	Е		Е	Е	Е	Е
Selected Programs								
Residential - Annual Media Campaign	X	X	X	X	Х	X	Х	X
Residential - Regular Public Education/Information Programming	Х	Х	Х	X	Х	Х	Х	X

(Continued)

TABLE 4-5: SUMMARY OF EDUCATION AND PUBLIC INFORMATION PROGRAMS (Continued)

Program	Benicia	Dixon	Fair- field	Rio <u>Vista</u>	Suisun	Vaca- ville	Vallejo	Uninc. County
Residential - Resource Conservation Hotline						X		
Residential - Neighborhood Block Leader Program			X	X	X	X	X	X
Residential - Information Booth(s)	X		X	X	X	X	X	X
Residential - Video			X	X	X	X	X	X
Residential - Resource Conservation Directory	X	X	X	X	Х	Х	X	X
Residential - Media Outreach on Disposal Facility Surcharge	X	Х	X	X	Х	X	Х	Х
Residential - Public Noticing/Media Outreach on Drought Resistant Landscaping Ordinance	X		X	X	Х	X	X	X
Residential - Master Composter Program	X	X	X	X	Х	X	X	X
Residential - Media Outreach/Utility Bill Inserts on Quantity-Based Hauling Fees	X		X	Х	X	X	X	X
Residential - Recycling Services Brochure/Utility Inserts	Х	Х	Х	Х	Х	X	Х	Х
Residential - Recycling Buy- Back/Drop-Off Services Publicity		Х	Х	Х	Χ.	X	Х	Х
Residential - Building Code Design for Recycling Publicity	Х	Х	Х	X	Х	X	Х	X
Residential - Feedback to Public on Recycling Efforts	Х	X	X	X	Х	X	Х	Х
Residential - Recycling Collection Material Expansion Updated Brochure	Х	Х	X	Х	Х	X	Х	Х
Residential -Pilot Yard Waste Collection Utility Bill Inserts/Brochure/Media	Х	X	Х	X	X	X	Х	Х

(Continued)

TABLE 4-5: SUMMARY OF EDUCATION AND PUBLIC INFORMATION PROGRAMS (Continued)

<u>Program</u>	Benicia	Dixon	Fair- field	Rio <u>Vista</u>	Suisun	Vaca- ville	<u>Vallejo</u>	Uninc. County
Residential - Christmas Tree Collection Publicity	X	Х	Х	Х	X	Х	X	Х
Residential - Yard/Wood Waste Drop-off Publicity	X	X	X	X	X	X	X	X
Residential - Yard Waste Collection Expansion(s) Letter/Brochure/Media	X	X	X	X	X		Х	Х
Residential - Pilot Food Waste Collection Brochure	X	Х		X	X		X	
Residential - Food Waste Collection Expansion Brochure/Media	Х	X		X	X		X	Х
Residential - Feedback to Public on Composting Efforts	X	X	X	Х	X	X	Х	X
Residential - Tire/Dead Animal Information Through Resource Conservation Director	X	X	X	X	X	X	X	X
Youth - Seminar for Educators	X	X	X	X	X	X	Х	X
Youth - Localize Existing Curriculum/Evaluate	X	X	X	X	X	Х	X	X
Youth - Student Activities on School Recycling Systems	X	Χ .	X	X	X	X	Х	X
Youth - Annual School Assemblies	X	X	X	X	X	X	X	X
Youth - Compost Education for Youth Groups	X	X	X	X	X	X	X	X
Commercial/Independent - Letter/Information Brochure	X	X	X	X	X	X	Х	X
Commercial/Independent - Slide Show or Video	X	Х	Х	X	X	X	Х	X
Commercial/Independent - Instructional Booklet	X	X	Х	X	Х	X	Х	X
Commercial/Independent - Technical Assistance	X	Х	X	X	Х	X	Х	X
Commercial/Independent - Modeling Program	Х	Х	Х	X	Х	Х	Х	X
Commercial/Independent - Regional Waste Exchange	X	Х	Х	X	X	X	Х	X

(Continued)

TABLE 4-5: SUMMARY OF EDUCATION AND PUBLIC INFORMATION PROGRAMS (Continued)

Program	Benicia	Dixon	Fair- field	Rio <u>Vista</u>	Suisun	Vaca- ville	Vallejo	Uninc. County
Commercial/Independent - Building Industry Resource Guide	Х	X	X	X	Х	X	Х	X
Commercial/Independent - Mandatory Comm. Recycling Ordinance Media/Education	X	Х	X	X		Х	X	Х
Commercial/Independent - Composting Information to Agricultural Industry		Х	Х			X		
Government - Modeling Program	X	X	X	X	X	X	X	X
Government - Procurement Ordinance Noticing/Public Hearing/Education	X	X	X	X	X	Х	Х	Х
Government - Composting Education	X	X	X	X	X	X	X	X

Key to Symbols:

E = Existing program; X = Selected program.

SOURCE: City and County SRREs

5. SUMMARY OF EDUCATION AND PUBLIC INFORMATION PROGRAMS SELECTED IN THE SRRES

Table 4-5 summarizes the education and public information programs identified in the SRREs. Due to the large number of programs selected, and the ease of identifying programs with brief descriptions in the table, the programs are not further explained in the text.

TABLE 4-6: SUMMARY OF HOUSEHOLD HAZARDOUS WASTE PROGRAMS

Program	<u>Benicia</u>	Dixon	Fair- field	Rio <u>Vista</u>	Suisun	Vaca- ville	Vallejo	Uninc: County
Periodic Collection Events	X,E	X,E	X,E	X,E	X,E	X,E	X,E	X,E
Permanent Drop-off Site for Recyclable HHW	X,E	X,E	X,E	X,E	X	X,E	X,E	X,E
Product Substitution/ Source Reduction	X,E	X,E	Х		X	X	X,E	X
Load Checking at Landfills/1/	X	X	X	X	Х	X	X	X
Central HHW Facility to Serve all of the County	С	С	С	С	С	С	С	С
Curbside Collection of Oil and/or Batteries			С	С	С		С	С
Countywide Waste Exchange	С	С	С	С	С	С	С	С

/1/ All jurisdictions haul to landfills with loadchecking programs.

Key to Symbols:

E = Existing program; X = Selected program; C = Contingency program.

SOURCES: City and County HHWEs

C. SUMMARY OF HOUSEHOLD HAZARDOUS WASTE PROGRAMS IN SOLANO COUNTY SELECTED IN THE HHWES

(See also Table 4-6.)

1. EXISTING PROGRAMS

The following programs were identified in the HHWEs as existing at the time the documents were written:

Periodic Collection Events

In 1991, three one-day collection events were held in city corporation yards in Vacaville (in cooperation with Dixon and Solano County), Vallejo, and Fairfield (in cooperation with Suisun

City, Rio Vista, and Solano County). Funding was from International Technology Corporation under a settlement agreement.

As part of their franchise agreement, Vallejo Garbage Service (VGS) holds one-day collection events annually. In 1990, B&J Landfill conducted a one-time HHW collection event. Pleasant Hill-Bayshore Disposal (PHBD) provides twice-monthly recyclable-only HHW collection at the City of Benicia's corporation yard, in accordance with the terms of their franchise agreement.

Existing Collection Facilities

There are a number of existing locations around the County where residents can take recyclable HHW, either motor oil only, or motor oil, latex paint, automotive batteries, and antifreeze. These are located in market parking lots, at service stations and auto parts stores, and at city and waste hauler corporation yards and garages. (See Appendix A for locations.)

Source Reduction of Household Hazardous Waste

Vallejo Garbage Service and the Vallejo League of Woman Voters distribute literature on non-toxic alternatives at the annual collection event held there. Dixon Sanitary Service gives occasional presentations to local schools and businesses covering all areas of recycling and HHW, and distributes brochures to the audience encouraging substitution of safer effective alternatives to hazardous products. The City of Dixon owns the video "Cleaning Up Toxics at Home," produced by the League of Women Voters for use at presentations to local organizations. PHBD distributes public education materials about HHWs, substitutes for toxic products used at home, and proper disposal suggestions at their bi-monthly collection event in Benicia.

2. HOUSEHOLD HAZARDOUS WASTE PROGRAMS SELECTED IN THE HHWEs

The following programs were selected for implementation in the HHWEs. Please refer to Appendix A for a directory of programs that have been implemented.

Periodic Collection Events

One-day collection events are planned for implementation by all of the cities and the County for the unincorporated areas. The County will work with the cities to arrange for unincorporated residents to be eligible to participate in events in nearby cities. Some of the events will accept all materials, both recyclable and non-recyclable, while others will accept recyclable materials only. Materials expected to be collected at the comprehensive events include waste oil, halogenated solvents, nonhalogenated solvents, organic liquids, pesticides, nonhalogenated organic sludge, dye and paint sludge and solids, nonmetallic inorganic liquids, and other inorganic solid wastes. Information on product substitution will be given to participants. Previously collected latex paint may be given away at the events. In the past, Vacaville, Dixon and the County have cooperated in the planning of events, as have Fairfield, Suisun City, and the County. Residents of the unincorporated area within Vallejo Garbage Service's service area pay for HHW services as part of their refuse collection bill, and are eligible to use the permanent recyclable HHW facility and the periodic collection events.

Permanent Drop-Off Sites

Additional permanent drop-off sites for recyclable HHW will be established at automobile parts stores and service stations, hardware stores, and other appropriate locations. This program will target used motor oil, antifreeze, latex paint, and automotive batteries. The sites will be established on the premises of appropriate private firms. The program may be overseen by individual jurisdictions or through interjurisdictional arrangements.

Product Substitution

This program entails providing all residents of Solano County with information on safer, effective alternatives to household hazardous products. Information will be distributed through literature, demonstrations, and oral presentations at collection events, schools, and other public events and gatherings. This program has a target within each participating jurisdiction of 15% of households. This program may be organized or coordinated on a multi-jurisdictional basis.

Load Checking at Landfills

Load checking programs are already in effect at the B&J and Potrero Hills Landfills, at the Devlin Road Transfer Station in Napa County, and at the STAR Transfer Station in Contra Costa County. These programs are required by state regulations, and enforced by the Solano County Department of Environmental Management (for Solano County facilities) in its capacity as the Local Enforcement Agency. These programs are planned to continue in their current form and scope. All household hazardous wastes are targeted through this program. Recyclable materials will be isolated and marketed as in the above description.

3. CONTINGENCY PROGRAMS

Central Collection, Storage, and Processing Facility

This program, selected for further consideration after 1995, is envisioned as a single facility that will serve all of Solano County's residents. In addition, periodic collection events would continue to be held around the County, with materials collected at the periodic events transported to the central facility for processing and storage. This program would target all HHW material types; recyclable materials would be segregated and marketed, as described above. This program would require establishment of interjurisdictional agreements to plan, fund, administer, and operate the program.

Curbside Collection of Oil and Batteries

This program is selected by all of the jurisdictions as a contingency program in case the other selected programs do not provide a sufficiently convenient way for residents to dispose of these materials. Curbside collection of oil and batteries would be added on to existing or planned non-hazardous recyclables curbside collection programs. Vallejo has selected this program as a contingency, but only for batteries. However, curbside collection of used oil was implemented in Vallejo in 1994.

Waste Exchange

An information-only (no physical facility) waste exchange for household hazardous wastes is selected as a contingency program for all eight jurisdictions in the event a waste exchange for other materials is established; household hazardous materials would be added as a targeted material type for the waste exchange. Only reusable and recyclable materials would be targeted.

D. SUMMARY OF FACILITIES IDENTIFIED IN THE NON-DISPOSAL FACILITY ELEMENTS

Existing unpermitted nondisposal facilities are summarized in Chapter III of this Summary Plan. This section summarizes non-disposal facilities that are permitted or are planned or proposed, as listed in each of the jurisdiction's NDFEs.

1. CENTRAL SOLANO COUNTY INTEGRATED MATERIALS RECOVERY FACILITY

Preliminary plans call for the Central Solano County Integrated Materials Recovery Facility (MRF) to be operational in 1997. The MRF would replace the existing Intermediate Processing Facility (IPF). The MRF site is projected to be located in central Solano County near a rail line. The MRF will handle a peak daily throughput of 600 tons. The facility will process source-separated recyclables from commercial and industrial sectors. The participating jurisdictions are the City of Fairfield, City of Suisun City, Travis Air Force Base, and unincorporated Solano County.

2. POTRERO HILLS COMPOSTING FACILITY

The Potrero Hills Composting Facility is a proposed facility which is currently under review for permitting by Solano County. It will be a large-scale composting operation receiving yard, wood, and stable wastes. The facility is expected to be permitted during 1995. It will be located on the site of the currently permitted Potrero Hills Landfill. The facility will process a maximum of 219 tons per day, diverting 12.4% of the wastes currently landfilled originating from the Potrero Hills Landfill's wasteshed in central Solano County. The participating jurisdictions include the City of Fairfield, City of Suisun City, and the unincorporated County.

3. CORRECTIONAL RESOURCE RECOVERY FACILITY

The proposed Correctional Resource Recovery Facility (CRRF) is a solid waste material and composting facility to be operated by the Prison Industry Authority at the California State Prison in Vacaville. The facility will be designed to process an average of 400 tons per day and a peak of 1,200 tons per day. The CRRF is projected to divert 50% of the waste received from Vacaville, Dixon, and from some 2,275 houses in the unincorporated area. The participating jurisdictions are the Cities of Dixon and Vacaville. Waste from the surrounding unincorporated areas of the County collected by Vacaville and Dixon Sanitary Service would also be brought to the CRRF.

4. B&J COMPOSTING FACILITY1

The B&J Composting Facility is a proposed facility expected to be permitted in 1995. It will be a large-scale composting operation receiving yard waste and wood waste to be co-composted with sewage sludge. The process will include chipping material and composting in windrows and an aerated static pile during winter months. The facility is expected to receive 80 to 100 tons per day of greenwaste. The facility is expected to divert 16.6% of waste currently landfilled from B&J's service area. The participating jurisdictions include the Cities of Dixon, Vacaville, and the surrounding unincorporated County.

5. FAIRFIELD COMPOST PROCESSING FACILITY

The City of Fairfield proposes to develop a 6-acre site to develop a facility that would process source-separated yard and wood wastes. The material would be shredded, screened, and placed in windrows for processing. The facility would expect to receive 50 tons per day for the first four years, and reach a maximum of 100 tons per day after five years. The expected diversion rate is 17 percent of the wastes generated in the City of Fairfield.

6. SOUTH NAPA WASTE MANAGEMENT AUTHORITY TRANSFER STATION

The South Napa Transfer Station is located south of the junction of Highways 12 and 29 in southern Napa County. The transfer station has an estimated throughput of 600 tons per day. The facility is capable of diverting five percent of the incoming wastestream, and 1.4% of Vallejo's total waste stream. The participating jurisdictions include the City of Vallejo and its unincorporated pockets, and, in Napa County, the City of Napa, American Canyon City, and unincorporated southern Napa County.

7. NAPA GARBAGE SERVICE/CITY OF NAPA RECYCLING AND COMPOSTING FACILITY

The City of Napa Recycling and Composting Facility is located on Levitin Way, southwest of the State Highway 29 and Tower Road intersection in Napa County. The facility handles source separated residential and commercial recyclable materials, yard waste, and grape pomace. Napa Valley Disposal Service operates the facility, and receives materials by trucks from residential curbside recycling and yard-waste pick-ups, as well as from commercial recycling accounts. Recyclables sorting is accomplished through semi-automated methods and composting is accomplished through chipping, grinding, windrowing, curing, and screening of organic materials. According to the City of Vallejo NDFE, the facility is capable of processing about 110 tons of recyclable materials per day, and somewhere between 29 to 58 tons of yard waste per day. The facility is assumed to divert about 10 percent of wastes generated by American Canyon and surrounding unincorporated County areas, while diverting approximately 25 percent of the wastes generated annually in the City of Napa. The site may be expanded to handle compostable

B&J Landfill has proposed building a Material Recovery Facility at the landfill. The current plan is to have the MRF operational by the year 2000 and to handle a daily throughput of 500 tons. The facility would process source separated recyclables from commercial, industrial, and residential customers in Vacaville, Dixon, and the surrounding unincorporated County. This facility is not described in the NDFE for the County, Vacaville, or Dixon. It is therefore not included in the summary of NDFEs in the text, and, assuming that it would be a permitted solid waste facility, would require the amendment of the NDFEs to be in compliance with the Countywide Integrated Waste Management Plan.

materials from the City of Vallejo and surrounding unincorporated Solano County. If so, the facility may be used by the City of Vallejo to divert 2,000 tons per year, or 3.4% of the City's wastestream, by 1995. An additional 4.6%, or 5,400 tons, of the City's wastestream may be diverted by the facility by the year 2000.

E. COORDINATION AND CONSOLIDATION OF PROGRAMS

This section evaluates programs and facilities for integration and implementation as Countywide programs and facilities. Countywide integration means combining similar programs selected by individual jurisdictions into a single program spanning the entire County and operating under a central administrative structure, or maintaining separate administration of like programs but coordinating design, implementation, or oversight through some Countywide agency or structure. Countywide integration may refer to programs and facilities selected in the SRREs, HHWEs, and NDFEs of the individual jurisdictions, or to programs that are being developed or considered outside of the local plans.

In order to facilitate the process of considering programs and facilities for Countywide integration, the LTF has established a set of policies for determining what types of programs and facilities are good candidates for integration. These policies narrow the field of candidate programs and preclude the need to unnecessarily evaluate individual programs and facilities that are not suitable for Countywide integration in Solano County.

1. GENERAL POLICIES FOR CONSIDERING COUNTYWIDE INTEGRATION OF PROGRAMS AND FACILITIES

The following policies, adopted by the LTF at the meeting of March 9, 1995, will guide the selection of programs to be considered for Countywide integration:

- a. Collection programs are a matter of local or subregional concern, since each city retains franchising authority and rate-setting authority("subregional" is defined as a grouping of two or three close or adjacent jurisdictions, e.g., Fairfield and Suisun City). Since there are several service providers throughout the County, integration of collection of recyclable or compostable materials is not feasible or desirable. There may, however, be merit in informal coordination of programs, e.g., sharing of information on program design and performance, and jointly producing generic public education campaigns.
- b. Recycling drop-offs, buy-backs, and processing facilities are of local or subregional concern. There are no plans for, nor is there interest in, developing Countywide recycling processing facilities. The Summary Plan should, however, discuss the multi-jurisdictional or subregional nature of some of the existing and planned facilities.
- c. The planned composting facilities will each serve several jurisdictions, but will be developed by the landfill operators and the Prison Industry Authority. Development of these facilities will require participation and cooperation of those jurisdictions intending to deliver materials to the facilities. None of the facilities, nor the facilities taken together, should be considered Countywide facilities. There may be merit, however, in coordinating the effort to develop and implement the facilities, in order to ensure that the facilities are properly sized, that they perform the functions required by the jurisdictions to achieve their integrated waste management goals and objectives, and to exchange information.

- d. The SRREs set out an agenda for implementing source reduction programs through use of pilot programs in one or two cities, then using the results of the pilots to design full-scale programs for each jurisdiction. This strategy should be maintained and, where possible, expanded upon to develop a structure for designing and evaluating the pilots, then applying the results of the pilots to local situations. However, additional flexibility should be worked into the planning and testing of pilot programs to give the LTF and the jurisdictions greater flexibility in deciding on the scope, the focus, and the location of pilot programs. Other programs might follow a similar model. For example, recycling programs (such as instituting volume-based rates, modifying zoning and building codes, and developing programs to support non-profit and small business recycling enterprises) could be implemented first in one or two jurisdictions, then modified in other jurisdictions.
- e. Programs that were noted in the SRREs and HHWEs as programs that would be implemented or coordinated on a Countywide basis, and programs that the LTF has developed, should be considered Countywide programs and should be reviewed and updated in the Summary Plan. In addition, the LTF has developed and implemented several Countywide programs
- f. Those education and public information (EPI) programs that are tied to the collection programs and processing facilities of individual jurisdictions are best left to the jurisdictions and their service providers. Many EPI programs, however, may be more effective and more cost efficient if combined into Countywide programs. Considerable emphasis should be placed on developing Countywide EPI programs.
- g. Marketing of recycled and composted materials is primarily, but not exclusively, the concern of the processors. The cities and the County play a role in assuring that markets exist, both in terms of involvement in the marketing process itself, and in terms of stimulating demand for recycled and composted products. There appear to be several market development programs that have good potential for Countywide integration, including government agency procurement policies, "buy recycled" public education campaigns, stimulating markets for compost products, and development of a Recycling Market Development Zone or other economic development incentives.

2. PROGRAMS TO BE EVALUATED FOR COUNTYWIDE INTEGRATION

Based on these policies, the following programs have been selected as Countywide programs, or as candidates to be further evaluated for their suitability for Countywide integration. All existing and selected Countywide programs are discussed in detail in section E-4 of this chapter, following the program evaluations.

a. Existing and Already Planned Countywide Programs

The following programs have been selected by the LTF or in the SRREs as Countywide programs:

1. LTF Programs

The following programs have been selected by the LTF as Countywide programs: The first four programs listed were selected by most or all jurisdictions in their SRREs, but not as Countywide programs. The remaining programs were not selected in the SRREs.

Countywide Guide to Recycling, Waste Reduction, and Household Hazardous Waste Backyard Composting Education and Bin Distribution
Backyard Composting Demonstration Sites
Business Awards Program
Schools Grant Program
Business Workshops
Public Education Rotating Display

2. SRRE and HHWE Programs

The following programs are identified in the SRREs and HHWEs as Countywide programs:

Source Reduction Pilot Programs:

Waste Surveys
Drought-Resistant Landscape Ordinance
School Curriculum and Student Projects
Yard Waste Management Education and Demo Site
Awards, Commercial and Industrial Generators
Participation in Regional Waste Exchange
Technical Assistance to Businesses

Special Waste Programs:

Tires: Discourage Auto Use Encourage Spaying and Neutering of Pets

Household Hazardous Waste Programs:

Central HHW Facility to Serve All of the County (selected as a contingency program)

Countywide Hazardous Materials Waste Exchange (selected as a contingency program)

These programs will be discussed in detail below.

b. Candidate Programs

The following programs will be evaluated for their suitability for Countywide integration:

Source Reduction Programs

In-House (Governmental) Source Reduction

Recycling Programs

Modify Zoning and Building Codes
City and County Procurement of Recycled and Composted Products
Support for Non-Profit and Small Business Recyclers
Recycling Market Development Zone Application
Coordination of Development of Recycling Collection and Processing

Composting Programs

Revision of City and County Codes, Specifications, and other Regulations to Permit and to Encourage the Use of Compost and Mulch in New Landscaping

Coordination of Development of Organic Material Collection Programs and Composting Facilities (evaluated with Coordination of Development of Recycling Collection and Processing) Mandatory Collection Ordinance (contingency program)

Special Waste Programs:

Tires: Encourage Diversion of Tires by Commercial Haulers

Education and Public Information Programs:

Education and Public Information programs will be designed as a component of all source reduction, recycling, composting, special waste, and household hazardous waste programs selected for Countywide implementation. In addition, the following EPI program selected in the SRREs is considered a good candidate for consideration as a Countywide program: Building Industry Resource Guide

Household Hazardous Waste Programs:

Product Substitution/HHW Source Reduction

3. EVALUATION OF PROGRAMS FOR COUNTYWIDE INTEGRATION

This section first reviews the criteria that will be used for evaluating the suitability of individual programs for Countywide integration. These criteria are then applied in evaluating the candidate programs listed in the previous section. The criteria were established by the LTF at the meeting of March 9, 1995.

The method used to apply the criteria in evaluating programs and facilities for Countywide integration is a narrative method; i.e., each candidate program or facility will be discussed in the context of each of the nine criteria. The discussion will lead to a considered and logical conclusion regarding whether, and in what form, integration should occur.

The following criteria will be used in evaluating programs and facilities for Countywide integration. Each criterion is followed by a brief explanation of its intent.

- a. Criteria for Considering Programs for Integration
- 1. The program or facility is selected by a large majority of the jurisdictions in the County. The program or facility is selected by most or all of the jurisdictions in their SRREs, HHWEs, or NDFEs.
- 2. Integrating the program or facility may result in higher diversion rates. Since the primary means of achieving the goals of the Integrated Waste Management Act is to divert more materials from landfill and transformation, an important consideration is whether integration of programs would result in higher diversion levels than implementing programs individually. In most cases, an increased diversion potential would result from the fulfillment of one of the other criteria listed here: the achievement of economies of scale, and the freeing of funds for improving service; increased marketability, resulting in higher and more consistent prices being paid for materials; increased effectiveness of education and public information programs, resulting in higher participation rates and better prepared materials for recycling or composting;

and more effective administration of the program, resulting in better response to problems and deficiencies in design or operation.

- 3. Integrating the program or facility would result in economies of scale and cost savings. Economies of scale are achieved when equipment and facilities are maximized, when larger capacity equipment or facilities cost less than several similar, smaller items, and when management and administrative costs are not duplicated.
- 4. Integrating the program or facility would facilitate marketing of recovered materials. In some cases, combining programs that produce the same recovered materials may result in an advantageous position for marketing the recovered material. This position may occur, first, from a single processor handling larger amounts of a material, and so being able to market directly or more directly to end-users; and secondly, from achieving an economy of scale sufficient to justify the purchase and operation of equipment that is able to produce a more highly refined or better prepared commodity.
- 5. Integrating the program or facility would simplify administration, minimize duplication of effort, or maximize scarce resources. In some situations, combining similar programs may result in a simplification of administrative structures, or an avoidance of duplicative efforts. In other cases, combining programs might allow for more comprehensive implementation within those jurisdictions that lack the resources to implement the program on their own. Programs selected by many jurisdictions are most logically administered centrally if combining programs would facilitate successful implementation and operation of the program, and integration would not impinge upon the interests of any of the participating jurisdictions.
- 6. Integrating the program or facility would make education and public information regarding the program or facility more effective and less costly, and may increase participation in the program. Where similar programs are implemented in adjacent or proximate jurisdictions, but differences occur in the programs, the public may become confused, for example, regarding what materials are accepted by a program and how they must be prepared, and where to get information about the programs operating in their community. If confusion levels are high and participation levels are low, jurisdictions may benefit from combining or coordinating the programs. Furthermore, mass media public information campaigns can generally be made more effective and less costly on a per capita basis if they cover a wider geographic area. Television and radio stations, particularly, generally serve media markets not contiguous with city and County borders.
- 7. Integrating the program or facility would not impinge upon the legitimate business activities or the economic development potential of existing diversion service providers. Some jurisdictions may be concerned that integration of a program they have selected may interfere with local businesses or local economic development activities. This may occur, for example, when integration would involve centralization of recycling processing and would therefore pre-empt the role of several, scattered, smaller firms or organizations; or when the importance of a small business or non-profit recycler within the community is not recognized by a more distant administrator of a program. This criterion is intended to screen out programs which would, if integrated, have a deleterious effect on local businesses or economic and community development activities.

- 8. Integrating the program or facility would facilitate accountability and calculation of diversion rates. A centrally administered program, or a centrally located facility, might simplify accounting procedures for determining diversion rates and program costs. This criterion has lost much of its former imperative, since the switch to disposal-based counting under the provisions of AB 2494.
- 9. The extent to which integrating programs would require the construction of new facilities. Existing processing capacity, e.g., for curbside recyclables, exists in several locations throughout the County. No one of these facilities, however, has sufficient capacity to handle most or all of the curbside materials from the County. If integration of collection programs would involve directing these materials to a single facility, then a new facility, or the expansion of an existing facility, would have to be planned.

b. Evaluation of Programs

In this section, programs identified as candidates for countywide coordination or consolidation are evaluated for their suitability as countywide programs. Programs are evaluated in the order in which they were presented in the previous section. In order to facilitate accessibility, each evaluation is presented on a separate page.

SOURCE REDUCTION PROGRAMS

In-House (Governmental) Source Reduction

Selected for Countywide Coordination

- 1. The program or facility is selected by a large majority of the jurisdictions in the County. This program was selected by all of the jurisdictions.
- 2. Integrating the program or facility may result in higher diversion rates. While it is impractical to administer such a program centrally, sharing of information sources and combining of resources may result in improved program results.
- 3. Integrating the program or facility would result in economies of scale and cost savings. Cost savings might accrue through avoiding duplication of effort.
- **4.** Integrating the program or facility would facilitate marketing of recovered materials. This criterion in not applicable to this program.
- 5. Integrating the program or facility would simplify administration, minimize duplication of effort, or maximize scarce resources. Information-sharing between the jurisdictions might minimize duplication and maximize scarce resources.
- 6. Integrating the program or facility would make education and public information regarding the program or facility more effective and less costly, and may increase participation in the program. It might be possible to produce generic information sheets that could be distributed directly to city and County employees, or be customized before distribution. This might save cost and might have the potential for developing more effective outreach to government employees regarding the program.
- 7. Integrating the program or facility would not impinge upon the legitimate business activities or the economic development potential of existing diversion service providers. Sharing of information and resources would not impinge upon local business opportunities or economic development potential.
- 8. Integrating the program or facility would facilitate accountability and calculation of diversion rates. Common measurement methods might be developed and shared between the jurisdictions in order to facilitate monitoring and evaluation of program performance.
- 9. The extent to which integrating programs would require the construction of new facilities. This program, whether or not integrated, will not require the construction of new facilities.
- 10. Summary and Conclusion. This program has the likelihood of being more effective and less costly if coordinated on a Countywide basis. While each jurisdiction will retain direct control over its in-house source reduction program, drafting of policies and devising means of informing employees will be coordinated as a Countywide program.

RECYCLING PROGRAMS

Modifying Zoning and Building Codes

- ***Selected for Countywide Coordination***
- 1. The program or facility is selected by a large majority of the jurisdictions in the County. This program was selected by all of the jurisdictions.
- 2. Integrating the program or facility may result in higher diversion rates. It is not practical to combine these programs under a single administrative structure. However, the individual programs could be coordinated in order to share information and scarce resources. This could result in more effective local programs and higher diversion rates.
- 3. Integrating the program or facility would result in economies of scale and cost savings. As with criterion 2, above, coordinating these programs could lead to more effective programs and could avoid duplication of effort.
- 4. Integrating the program or facility would facilitate marketing of recovered materials. This criterion is not applicable to this program.
- 5. Integrating the program or facility would simplify administration, minimize duplication of effort, or maximize scarce resources. See criteria 2 and 3, above.
- 6. Integrating the program or facility would make education and public information regarding the program or facility more effective and less costly, and may increase participation in the program. Coordination of the programs might enable production of information materials that could be applicable throughout the County, and could be used by all jurisdictions, e.g., an informational brochure on building codes related to storage space for recyclables that could be distributed through building departments. This could probably be done more cost effectively if done centrally.
- 7. Integrating the program or facility would not impinge upon the legitimate business activities or the economic development potential of existing diversion service providers. This criterion is not applicable to this program.
- 8. Integrating the program or facility would facilitate accountability and calculation of diversion rates. This criterion is not applicable to this program.
- 9. The extent to which integrating programs would require the construction of new facilities. This criterion is not applicable to this program.
- 10. Summary and Conclusion. Coordination of this program has merit from the standpoint of uniformity and effectiveness of implementation. Coordination might best take the form of reviewing the ordinances enacted to date, as well as the state's model ordinance (which has taken effect locally), and developing strategies for effective implementation that can be employed by all of the jurisdictions.

RECYCLING PROGRAMS (Continued)

City/County Procurement of Recycled and Composted Products

- ***Selected for Countywide Coordination***
- 1. The program or facility is selected by a large majority of the jurisdictions in the County or region. These programs were selected by all of the jurisdictions.
- 2. Integrating the program or facility may result in higher diversion rates. Finding markets for recyclables is critical to the success of recycling collection programs. Stimulating demand for recycled products by initiating recycled product procurement programs contributes to the long-term sustainability of diversion efforts.
- 3. Integrating the program or facility would result in economies of scale and cost savings. For procurement programs, greater purchasing power might result in cost savings.
- **4.** Integrating the program or facility would facilitate marketing of recovered materials. Committing to the purchase of recycled products, including compost, regionally, will stimulate the demand for these products, which in turn facilitates the collection, processing, and marketing of the materials.
- 5. Integrating the program or facility would simplify administration, minimize duplication of effort, or maximize scarce resources. Information sharing between jurisdictions might minimize duplication and maximize scarce resources. While it may be impractical to administer a purchasing program centrally throughout the County, some cooperative purchasing could occur which would also maximize resources. Cooperative purchasing occurs when similar organizations pool their purchases into a single bid rather than buying products individually. If a central agency provides technical assistance on availability and quality of recycled products, as well as recycled product vendors, this would also minimize duplication of effort among purchasing departments and maximize scarce resources.
- 6. Integrating the program or facility would make education and public information regarding the program or facility more effective and less costly, and may increase participation in the program. Since purchasing structures vary from jurisdiction to jurisdiction, it would be necessary to educate as many city and County employees as possible. It might be possible to produce information sheets on the importance of "buying recycled" and customize them for each jurisdiction prior to distribution. It may also be possible to develop a Countywide "buy recycled" vendor directory for all jurisdictions to use as a reference.
- 7. Integrating the program or facility would not impinge upon the legitimate business activities or the economic development potential of existing diversion service providers. The procurement of recycled products would not impinge upon local business activities or the economic development potential of existing service providers. If the program stimulates demand for recycled content products, local recycling service providers will realize more stable markets for their materials.

- 8. Integrating the program or facility would facilitate accountability and calculation of diversion rates. Common measurement and reporting methods might be developed and shared between the jurisdictions in order to facilitate monitoring and evaluation of the program.
- 9. The extent to which integrating programs would require the construction of new facilities. This criterion is not applicable to this program.
- 10. Summary and Conclusion. This program has the likelihood of being more effective and less costly if coordinated on a Countywide basis. While each jurisdiction will retain direct control over its purchasing efforts, the drafting of recycled product procurement policies, researching of products and vendors, employee educational efforts, and workshops or seminars could be coordinated as Countywide programs.

RECYCLING PROGRAMS (Continued)

Support for Non-Profit and Small Business Recyclers

Not Selected as a Countywide Program

This program would include establishing preferences for non-profit and small business recyclers, and other methods of support.

- 1. The program or facility is selected by a large majority of the jurisdictions in the County. This program is selected by all eight jurisdictions.
- 2. Integrating the program or facility may result in higher diversion rates. Integrating support for small and non-profit recyclers, and making this a Countywide program, is not likely to increase diversion rates.
- 3. Integrating the program or facility would result in economies of scale and cost savings. Small and non-profit recycling is for the most part a matter of local concern; there would be no discernible cost savings or achieving of economies of scale by integrating the program.
- 4. Integrating the program or facility would facilitate marketing of recovered materials. Cooperative marketing arrangements, and marketing cooperatives, are generally advantageous for small and non-profit recyclers, particularly in remote small and rural communities. However, in Solano County, the existing non-profit and independent recyclers maintain close working relationships with larger haulers and materials dealers, and do not seem to suffer from a weak market position.
- 5. Integrating the program or facility would simplify administration, minimize duplication of effort, or maximize scarce resources. While information-sharing between the jurisdictions on strategies and experiences with assisting small businesses and non-profits might be valuable, centralization of administration is not feasible or desirable.
- 6. Integrating the program or facility would make education and public information regarding the program or facility more effective and less costly, and may increase participation in the program. Existing or new Countywide public education channels could be modified to emphasize support of non-profit and small business recycling. This might be more effective than individual efforts.
- 7. Integrating the program or facility would not impinge upon the legitimate business activities or the economic development potential of existing diversion service providers. Any support of one type of business or organization must take into account the effects on others. In general, however, small businesses and non-profit organizations have a net positive effect on local community and economic development. This would not be changed by making the program Countywide.
- 8. Integrating the program or facility would facilitate accountability and calculation of diversion rates. Most non-profit recyclers readily supply tonnage information. Some small businesses consider such information proprietary and are reluctant to provide it. However, if

support is given to small businesses, it may be done on a quid-pro-quo basis. This would not, however, change depending on whether the program is integrated as a Countywide program.

- 9. The extent to which integrating programs would require the construction of new facilities. New businesses and activities might require new facilities. This would not change, however, if the program is made Countywide.
- 10. Summary and Conclusion. Support for non-profit and small business recyclers is an explicit goal of this plan. While this support should not be made a separate Countywide program, support should be worked in to all Countywide programs. Therefore, this program is not selected as a separate Countywide program.

RECYCLING PROGRAMS (Continued)

Recycling Market Development Zone Application

Selected for Countywide Coordination

A Recycling Market Development Zone (RMDZ) is an area set aside in a community or in a group of communities designed to attract businesses that will turn secondary materials from the waste stream into recycled products. The CIWMB has designated 40 RMDZs to date. Any future designations will be made only to expansions of the existing Zones.

- 1. The program or facility is selected by a large majority of the jurisdictions in the County. This program was selected by seven of the eight jurisdictions.
- 2. Integrating the program or facility may result in higher diversion rates. The development of markets for recycled materials is critical to maintaining and increasing diversion rates from recycling collection programs. Local market development efforts work best when the best resources of a community are brought together to achieve a common goal.
- 3. Integrating the program or facility would result in economies of scale and cost savings. Establishing communication between solid waste professional, local government, economic developers, and the financial community could prevent duplication of efforts. Establishing an implementation team can reduce costs in administration, promotion, and information gathering.
- **4.** Integrating the program or facility would facilitate marketing of recovered materials. The purpose of applying to the CIWMB for designation as a Recycling Market Development Zone is to create local marketing, value-added processing, and remanufacturing opportunities for recovered materials.
- 5. Integrating the program or facility would simplify administration, minimize duplication of effort, or maximize scarce resources. Developing an RMDZ application and implementation team would spread out the responsibility of administration among various organizations, would minimize duplication of effort, and would maximize scarce resources.
- 6. Integrating the program or facility would make education and public information regarding the program or facility more effective and less costly, and may increase participation in the program. Developing a coordinated marketing program with information to be distributed to businesses both within Solano County and outside the area describing the benefits of locating or expanding in the Recycling Market Development Zone will enhance the RMDZ. It will make the program more effective and less costly and may increase interest in the program. Many other RMDZs have created marketing materials and this information should be for the entire Zone.
- 7. Integrating the program or facility would not impinge upon the legitimate business activities or the economic development potential of existing diversion service providers. Strengthening the local markets for recycled materials by attracting new secondary materials end-users to the area, or assisting existing manufacturers to use substitute materials, would not be detrimental to existing service providers. In fact, existing service providers may be interested

in expanding their operations from recycling collection to do some value-added processing or remanufacturing.

- 8. Integrating the program or facility would facilitate accountability and calculation of diversion rates. This criterion is not applicable to this program. However, better data on recyclable materials could help secondary materials end-users.
- 9. The extent to which integrating programs would require the construction of new facilities. This criterion is not applicable to this program.
- 10. Summary and Conclusion. To participate in the NSA RMDZ, the remaining areas of Solano County should coordinate and initiate an application for expansion of the RMDZ. A two-County regional Zone will be a catalyst for bringing about regional coordination of economic development resources.

RECYCLING PROGRAMS (Continued)

Coordination of Development of Recycling and Organic Materials Collection and Processing

Selected for Countywide Coordination

- 1. The program or facility is selected by a large majority of the jurisdictions in the County. All eight jurisdictions selected recycling and yard waste collection and processing programs.
- 2. Integrating the program or facility may result in higher diversion rates. Centralization of collection and processing programs and facilities is neither feasible nor desirable; however, coordination of implementation efforts may result in more efficient and effective implementation of individual collection programs by individual jurisdictions or neighboring jurisdictions, and their service providers; furthermore, coordination of development of processing facilities will help ensure that facilities are not overbuilt.
- 3. Integrating the program or facility would result in economies of scale and cost savings. As mentioned above, coordination of implementation of processing facilities might help avoid overbuilding of facilities; appropriately sized facilities are essential to avoid excessive debt service and excessively high costs.
- **4.** Integrating the program or facility would facilitate marketing of recovered materials. There is little interest in centralizing to the point of combining marketing of materials for recycled materials; there may, however, be interest in sharing information and ideas on marketing of compost products.
- 5. Integrating the program or facility would simplify administration, minimize duplication of effort, or maximize scarce resources. Sharing of information and joint planning might help avoid duplication of effort.
- 6. Integrating the program or facility would make education and public information regarding the program or facility more effective and less costly, and may increase participation in the program. Coordination of the programs to the extent of standardizing them could create a situation in which the programs could be jointly publicized. While this might have advantages for efficiency and effectiveness of delivery of mass media messages, and would help to reduce confusion of residents, it is not likely that this will occur due to the numerous, different programs already in place, and the fact that several service providers operate in the County.
- 7. Integrating the program or facility would not impinge upon the legitimate business activities or the economic development potential of existing diversion service providers. Coordination of programs would not impinge on existing business activities or economic development potential.
- 8. Integrating the program or facility would facilitate accountability and calculation of diversion rates. One aspect of coordination could be a common reporting system. This would allow the County to track Countywide diversion more effectively and reliably, and would give

individual jurisdictions a better basis for comparing their program's performance to that of their neighbors.

- 9. The extent to which integrating programs would require the construction of new facilities. This criterion is not applicable to this program.
- 10. Summary and Conclusion. The LTF is a logical body for coordination of recycling and organic material program and facility design and implementation. The LTF can serve as a forum for regular updates on program and facility implementation, can develop a common reporting system, and can serve as a source for exchange of information regarding program innovations and ideas. Informal coordination and information exchange for recycling and organic material collection and processing is therefore selected as a Countywide program.

COMPOSTING PROGRAMS

Revision of City and County Codes, Specifications, and Other Regulations to Permit and to Encourage the Use of Compost and Mulch in New Landscaping

Selected for Countywide Coordination

- 1. The program or facility is selected by a large majority of the jurisdictions in the County or region. This program was selected by all of the jurisdictions.
- 2. Integrating the program or facility may result in higher diversion rates. It is not practical to combine the programs under a single administrative structure. However, the individual programs could be coordinated in order to share information, resources, specifications, and vendors. This could result in more effective local programs and higher diversion rates.
- 3. Integrating the program or facility would result in economies of scale and cost savings. As with criterion 2, above, coordinating programs could lead to more effective implementation and could avoid duplication of effort.
- 4. Integrating the program or facility would facilitate marketing of recovered materials. The revision of regulations could be very effective in promoting markets for mulch and compost. The effectiveness depends on the quality of the product and on the specific needs of landscapers and other end-users.
- 5. Integrating the program or facility would simplify administration, minimize duplication of effort, or maximize scarce resources. A central agency could coordinate consistency in product specifications among jurisdictions. Information gathering and sharing by a coordinating agency would simplify administration, minimize duplication of effort among jurisdictions, and maximize scarce resources.
- 6. Integrating the program or facility would make education and public information regarding the program or facility more effective and less costly, and may increase participation in the program. Coordination of the programs might enable production of information materials that could be applicable throughout the County and used by all jurisdictions, e.g., an informational sheet that lists providers of compost and mulch products with product specifications and prices. This could be done more cost effectively if done centrally.
- 7. Integrating the program or facility would not impinge upon the legitimate business activities or the economic development potential of existing diversion service providers. This activity could strengthen markets for compost products, which would enhance the business activities of the yard debris collection and processing service providers.
- 8. Integrating the program or facility would facilitate accountability and calculation of diversion rates. This criterion is not applicable to this program
- 9. The extent to which integrating programs would require the construction of new facilities. This criterion is not applicable to this program

10. Summary and Conclusion. Coordination of this program has merit from the standpoint of uniformity and effectiveness of implementation, and to the extent that coordination will not require additional effort and reduce efficiency. Coordination might best take the form of finding the most effective institutional channels for promoting the use of compost and mulch products, producing information pieces that can be made available at business license or permit areas, and researching and producing a list of businesses that sell compost products to landscapers and landscape architects. These activities could be coordinated through the LTF.

COMPOSTING PROGRAMS (Continued)

Mandatory Collection Ordinance (Contingency Program)

Not Selected as a Countywide Program

- 1. The program or facility is selected by a large majority of the jurisdictions in the County or region. All of the jurisdictions selected this policy alternative as a contingency in the event participation rates are lower than projected for organic material collection programs.
- 2. Integrating the program or facility may result in higher diversion rates. The need for a collection ordinance is unclear at this time, since only one jurisdiction (Benicia) has instituted curbside collection of organic materials (on a pilot basis); therefore, the effect of an ordinance is unclear at this time.
- 3. Integrating the program or facility would result in economies of scale and cost savings. A single ordinance would not be effective since each jurisdiction franchises or contracts for services. However, if collection ordinances become necessary in the future, coordination of their implementation might reduce costs.
- **4.** Integrating the program or facility would facilitate marketing of recovered materials. This criterion is not applicable to this program.
- 5. Integrating the program or facility would simplify administration, minimize duplication of effort, or maximize scarce resources. As in criterion 3, above, coordination of research, drafting of collection ordinances could help reduce duplication and maximize scarce resources.
- 6. Integrating the program or facility would make education and public information regarding the program or facility more effective and less costly, and may increase participation in the program. If all jurisdictions enact similar ordinances, education and public information regarding the ordinances could be conducted on a Countywide basis, thus potentially lowering costs and increasing effectiveness.
- 7. Integrating the program or facility would not impinge upon the legitimate business activities or the economic development potential of existing diversion service providers. Integration would not impinge on business interests or economic development activities.
- 8. Integrating the program or facility would facilitate accountability and calculation of diversion rates. Programs will be administered by individual jurisdictions; Countywide coordination will not affect accountability.
- 9. The extent to which integrating programs would require the construction of new facilities. This criterion is not applicable to this program.
- 10. Summary and Conclusion. This program should remain a contingency program until organic materials collection is implemented Countywide. After experience is gained with these programs and participation is encouraged through voluntary measures, the possibility of enacting collection ordinances should be revisited. If collection ordinances are found to be desirable or necessary, it is likely that there would be merit in coordinating research and writing of ordinances through a body such as the LTF.

SPECIAL WASTE PROGRAMS

Tires: Encourage Diversion of Tires by Commercial Haulers

- ***Selected for Countywide Coordination***
- 1. The program or facility is selected by a large majority of the jurisdictions in the County or region. This program was selected by all eight jurisdictions.
- 2. Integrating the program or facility may result in higher diversion rates. Integrating the program should make it more effective, more comprehensive, and more likely to achieve higher diversion rates.
- 3. Integrating the program or facility would result in economies of scale and cost savings. As commercial tire haulers generally operate in more than one jurisdiction, integrating this program would streamline outreach efforts and make them more cost effective.
- **4.** Integrating the program or facility would facilitate marketing of recovered materials. This criterion is not applicable to this program.
- 5. Integrating the program or facility would simplify administration, minimize duplication of effort, or maximize scarce resources. Having a single entity performing outreach to all commercial tire haulers in the County (only four are registered with the CIWMB) would simplify administration and operation of this program.
- 6. Integrating the program or facility would make education and public information regarding the program or facility more effective and less costly, and may increase participation in the program. This program is an outreach program to commercial tire haulers.
- 7. Integrating the program or facility would not impinge upon the legitimate business activities or the economic development potential of existing diversion service providers. Integrating the program would not impinge upon business or economic development interests.
- 8. Integrating the program or facility would facilitate accountability and calculation of diversion rates. Central administration and operation of this program would greatly facilitate monitoring and evaluation of the program.
- 9. The extent to which integrating programs would require the construction of new facilities. Integrating the program would not require new facilities.
- 10. Summary and Conclusion. This program will require a small outreach effort. It makes sense for one jurisdiction to handle outreach to all commercial tire haulers in the County, and to make results available to the other jurisdictions. This program is, therefore, selected for integration.

EDUCATION AND PUBLIC INFORMATION PROGRAMS

Building Industry Resource Guide

Selected as a Countywide Program

- 1. The program or facility is selected by a large majority of the jurisdictions in the County. This program was selected by all of the jurisdictions.
- 2. Integrating the program or facility may result in higher diversion rates. Combining or coordinating the program might result in more effective provision of information and avoidance of duplication of effort, thus making the program more effective and less costly.
- 3. Integrating the program or facility would result in economies of scale and cost savings. Both personnel and material costs savings would be realized in developing this program cooperatively. Personnel costs savings would be achieved by avoiding duplicated efforts, and material cost savings would be achieved through economies of scale such as in printing costs.
- **4.** Integrating the program or facility would facilitate marketing of recovered materials. This criterion is not directly applicable to this program.
- 5. Integrating the program or facility would simplify administration, minimize duplication of effort, or maximize scarce resources. See criterion 3, above.
- 6. Integrating the program or facility would make education and public information regarding the program or facility more effective and less costly, and may increase participation in the program. This criterion is not applicable to this program as it is an education and public information program.
- 7. Integrating the program or facility would not impinge upon the legitimate business activities or the economic development potential of existing diversion service providers. There would be no impingement upon legitimate business activities.
- 8. Integrating the program or facility would facilitate accountability and calculation of diversion rates. Common measurement methods could be developed and shared between the jurisdictions in order to facilitate monitoring and evaluation of the building industry guide.
- 9. The extent to which integrating programs would require the construction of new facilities. This criterion is not applicable to this program.
- 10. Summary and Conclusion. This program has the likelihood of being more cost-effective if coordinated on a Countywide basis. Because the building industry crosses jurisdictional boundaries (e.g., a Fairfield contractor may build a house in Vallejo), it makes sense to provide uniform information.

HOUSEHOLD HAZARDOUS WASTE PROGRAMS

Product Substitution

Selected as a Countywide Program

- 1. The program or facility is selected by a large majority of the jurisdictions in the County or region. This program was selected by all of the jurisdictions but Rio Vista.
- 2. Integrating the program or facility may result in higher diversion rates. To the extent that integration would increase product substitution program development, integration would result in higher diversion rates.
- 3. Integrating the program or facility would result in economies of scale and cost savings. Cost savings could be realized through joint development of education and outreach materials and activities.
- **4.** Integrating the program or facility would facilitate marketing of recovered materials. This criterion is not applicable to this program.
- 5. Integrating the program or facility would simplify administration, minimize duplication of effort, or maximize scarce resources. As with criterion 3, above, some portions of the product substitution program could be carried out jointly and centrally, thus reducing cost and avoiding duplication of effort.
- 6. Integrating the program or facility would make education and public information regarding the program or facility more effective and less costly, and may increase participation in the program. Product substitution is a public education program.
- 7. Integrating the program or facility would not impinge upon the legitimate business activities or the economic development potential of existing diversion service providers. Integration of the program would not impinge upon business or economic development interests.
- 8. Integrating the program or facility would facilitate accountability and calculation of diversion rates. An explicit objective of all of the HHWEs and of this Summary Plan is to achieve a product substitution rate of 15% annually, i.e., for 15% of residents to substitute for one hazardous product each year. Integration could help to track progress toward achieving this objective.
- 9. The extent to which integrating programs would require the construction of new facilities. This criterion is not applicable to this program, since the program does not entail use of facilities.
- 10. Summary and Conclusion. Integration of the household hazardous waste product substitution program has the potential to increase the effective implementation of this important program, and to lower the cost of implementation. This program is, therefore, selected for implementation as a Countywide program.

4. DESCRIPTION OF PROGRAMS SELECTED FOR COUNTYWIDE COORDINATION AND CONSOLIDATION

Based on their selection by the LTF or in the SRREs, or based on the evaluations above, the following programs have been selected for Countywide implementation:

a. Programs Previously Selected for Countywide Implementation by the LTF or in the SRREs

Solano County Guide to Recycling and Waste Reduction

Backyard Composting Education

Backyard Composting Demonstration Sites

Grants for School Projects

Public Education Traveling Display

Business/Industry Workshops

Awards for Commercial and Industrial Waste Reduction

Source Reduction of Tires by Discouraging Auto Use

Encourage Spaying and Neutering of Pets to Reduce Dead Animal Waste

b. Programs Selected for Countywide Implementation Based on Summary Plan Evaluations

In-House (Governmental) Source Reduction

Modify Zoning and Building Codes to Facilitate Recycling

City and County Recycling, including Procurement Preferences for Recycled and Composted Products

Recycling Market Development Zone Application

Coordination of Development of Recycling and Composting Collection and Processing

Revision of City and County Codes, Specifications, and other Regulations to Permit and to Encourage the Use of Compost and Mulch in New Landscaping

Tires: Encouraging Commercial Haulers of Waste Tires to Maximize Diversion

Building Industry Resource Guide

Household Hazardous Products Substitution

PROGRAM DESCRIPTIONS

County Guide to Recycling and Waste Reduction

Solano County has been producing a guide to recycling since before the passage of AB 939. With each revision, the guide has become more complete and broader in scope, and now includes information not only on the various recycling programs operating throughout the County, but also information on where to buy recycled and reusable products, location of thrift, reuse, and repair shops, where to take auto-related wastes, basic information on backyard composting, and what to do with difficult-to-handle items, such as polystyrene packaging peanuts and florescent lamps. For the past several years, compilation of information for the production of the guide has been coordinated by the LTF. The LTF is currently coordinating a revision of the guide that will be designed more flexibly to allow the individual cities to update their own information. The guide will now be a folder with inserts provided by the cities for services available within their own boundaries, and will also have space for information on Countywide programs. This will allow for updating specific information without reprinting the entire guide.

In the future, the LTF will continue to coordinate production of the guide, with each jurisdiction contributing information on its own programs. The LTF's role will include researching and producing materials of Countywide scope and concern for inclusion in the guide. These might include information sheets on the following:

- Spaying and neutering of pets to reduce the generation of dead animals;
- Drought-resistant landscaping and other low-waste landscaping and gardening methods, such as using mulching mowers for lawns;
- Alternatives to the use of automobiles, such as bicycles, mass transit, and walking, to decrease the generation of tires and other auto-related wastes;
- Safer, effective alternatives to hazardous household products;
- Recycling and waste prevention for businesses and institutions;
- Information on CALMAX, the California Materials Exchange; and
- Reduction of holiday-related wastes.

These information sheets should be used both as a means of providing basic information to the people of Solano County, and also informing them of related services or more detailed information sources available throughout the County.

Program Costs

This program, including research and writing of Countywide inserts for the guide, will be borne out of existing staff and materials budgets by the cities and the County.

Backyard Composting Education, Demonstration Sites, and Bin Distribution

The LTF has been coordinating a Countywide backyard composting program since 1993. Funds for the program originate from the County's landfill tipping fee (currently \$.15 per ton). Each year the program has had a different focus:

- In 1993, each jurisdiction was offered \$3,000 to construct a composting demonstration site. Fairfield (jointly with Suisun City), Dixon, and Vallejo constructed sites.
- In 1994, funds were available for training volunteer instructors who would hold composting education workshops.
- In 1995, funds are available for purchasing compost bins for distribution to interested residents.

Backyard composting continues to grow in popularity. It has emerged as the single most effective and tangible source reduction program. The cities that have held workshops and distributed bins have reported much enthusiasm on the part of residents, and often are unable to accommodate all requests for bins or workshops. It is quite likely that only a small percentage of

the potential audience for backyard composting education and supplies has been reached to date. Therefore, a continuation of Countywide backyard composting efforts is in order.

Future efforts should be guided by the LTF and implemented by the individual jurisdictions. Directions for the future of the program might include:

- Construction of additional demonstration sites:
- Development of vermicomposting education programs for residents, schools, and institutions;
- Funding of worms and boxes for vermicomposting instead of, or in addition to, compost bins;
- · Training additional volunteer instructors; and
- Construction of a mobile display unit that could be used by all interested jurisdictions at fairs, farmers' markets, and other public events and places.

Program Costs

Funding for this program might come from either of two sources: funds originating from County landfill tip fees, and made available to the individual jurisdictions on either a per-capita or per-jurisdiction basis; or, funds originating from contributions directly from participating jurisdictions. Funding for the program should be in line with past efforts, i.e., in the range of \$5,000 - \$10,000 per year.

Schools Grant

The LTF administers a program that provides small grants to schools in Solano County for projects related to waste diversion. Grant funds originally came from Contra Costa import fees from the early 1990's, and now come from the tipping fee surcharge. The Board of Supervisors has allocated \$14,500 for this purpose. To date, the LTF has approved grants for a total of \$5,000 through two grant cycles. Grants are given for a maximum of \$500. Projects funded in the first two cycles range from on-site composting projects to purchase of bins for in-school recycling programs. Since the money allocated for this program was a one-time allocation, the future of the grant program is uncertain. There seems, however, to be growing interest in the program as it becomes better known. Because of the importance of educating children about the benefits and practices of source reduction, recycling, and composting, and because of the low cost and growing interest in this program, as well as the innovative programs that the grants have engendered to date, this program should be continued.

Program Costs

In future, the LTF will oversee two grant cycles per year, with a maximum of eight grants of \$500 each, for a total annual cost of \$8,000. This program could be funded through the tipping fee surcharge, and by contributions from participating jurisdictions.

Public Education Traveling Display

The LTF has purchased a traveling display panel for use by LTF members. The display is portable and can be set up in different configurations. It includes areas for displaying information on recycling, waste prevention, household hazardous waste, and other subjects, as well as brochure-holders. The County has posted some information on the display; users of the display may, however, customize it to their needs. The display is available to all LTF members for use at public events and in public places, such as fairs, city halls, senior centers, libraries, etc.

Business/Industry Workshops

The purpose of this program is to provide distinct business/industry sectors with information and technical assistance on source reduction, recycling, composting, and special waste management so that they can implement diversion programs within their facilities. This approach involves identifying business/industry sectors and developing specific workshop formats for diversion program implementation within these sectors. Examples of specific business/industries sectors the LTF may choose to target are restaurants, offices, and construction. Workshops should focus on the practical aspects of waste diversion, such as how to conduct a waste audit, how to purchase to reduce waste, and how to implement a recycling program. In addition, educational "how-to" materials by industry type should be developed to guide them through the program implementation steps. It should also provide information on the California Materials Exchange (CALMAX) Program. To publicize the workshops, the LTF should mail out letters of invitation to individual businesses based on their Standard Industrial Classification Code, and advertise in business publications such as the local business journal and chambers of commerce and industry association newsletters.

Program Costs

Program costs are based on three target sectors with one workshop each. Start-up costs should be borne partly out of the County's landfill tipping fee surcharge, and partly from contributions from participating jurisdictions. Costs for materials and on-going program maintenance costs should come from the participating cities (since most of businesses are located in the cities), from the tipping fee surcharge, or from other sources, such as the California Integrated Waste Management Board's competitive grants given for their Pilot Business Waste Reduction Program. Costs for developing informational materials should be very low, since an abundant amount of information and materials exists on technical assistance to businesses/industries. The LTF should review existing materials in developing their workshops and collateral materials. Sources of information include the CIWMB Local Assistance Branch, Whatcom County's WasteWise Business Program, King County Solid Waste Division's Business and Industry Recycling Venture Program, and the US EPA's WasteWise Program.

Start Up Costs

Workshop Format Development

Personnel \$ 9,000 Materials \$ 0

Subtotal \$ 9,000

Educational "How-To"

Materials Development

Personnel \$3,000 Materials \$6,000

Subtotal \$ 9,000

TOTAL START-UP \$18,000

Annual Costs

Workshop Hosting

Personnel \$ 9,000 Materials \$ 3,000

TOTAL ANNUAL COST \$12,000

Model Business/Industry Awards Program

The Model Business/Industry Awards Program's purpose is to identify and give public recognition to businesses and industries for notable source reduction, recycling, composting, and special waste management efforts. The Model Business/Industry Awards Program compliments the Business/Industry Workshops by combining the economic advantages from diverted waste with marketing advantages from public recognition, and augments the State's award program. Through the Awards Program, businesses may enjoy an enhanced image in the community, thus attracting more customers. Also, the awards program presents the LTF with the opportunity to develop local case studies for use as role models for other businesses and industries. In designing an awards program, the LTF should consider:

Award categories - Award categories can be delineated by business/industry sector or they can be delineated by activity such as waste prevention, recycling, composting, or purchasing recycled products. As another option, the LTF may choose to take a more general approach by omitting award categories.

Award criteria - Award criteria are closely linked with award categories and provide guidelines for nomination as well as a measuring devise in making award decisions. Examples of award criteria are having a minimum of three waste diversion techniques in place, incorporating employee education and involvement in waste diversion activities, and meeting or exceeding state-mandated diversion goals.

Method of nomination - The LTF should vigorously advertise the Awards Program at the Business/Industry Workshops, at business group meetings, and through local business publications. In addition, a program information and nomination brochure should be developed and distributed widely throughout the business community. Nominations should be in writing with guidelines specifying the required information.

Methods to recognize award recipients publicly - There are a variety of ways the awarded businesses can be recognized for their achievements. Recognition could include featuring model businesses at the Business/Industry Workshops, providing an award program logo window decal and a camera-ready logo for use in marketing, and placing feature articles in city newsletters and local newspapers.

Award cycle - The LTF may wish to accept nominations and present awards on an ongoing basis or a cyclical basis, such as once per year. On an annual basis, nominations and awards can be incorporated into other annual events, such as Recycle Week.

Program Costs

Start-up, materials, and on-going program maintenance costs for the Model Business/Industry Awards Program should come primarily from contributions from the participating cities, since the majority of the County's businesses are located in the incorporated areas. As a service to the entire County, however, start-up costs may be borne out of the County's landfill tipping fee surcharge. Information and materials exist on businesses/industries and other award programs that the LTF should review in designing Solano County's program. The King's County Solid Waste Division's Business and Industry Recycling Venture Program is an excellent example.

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Awards Program Development

Personnel \$ 6,000 Materials \$ 0

SUBTOTAL \$6,000

Promotion Strategy/

Recognition Materials Development

Personnel \$ 3,000 Materials \$ 6,000

SUBTOTAL \$ 9,000

TOTAL START-UP \$15,000

Annual Costs

Award Program Promotion

Personnel \$ 3,000 Materials \$ 2,000

SUBTOTAL \$5,000

Award Program Nomination/

Award Selection

Personnel \$ 1,000 Materials \$ 0

SUBTOTAL \$1,000

TOTAL ANNUAL \$6,000

Source Reduction Pilot Programs

The SRREs all selected several programs that would be implemented as pilot programs by one or two of the jurisdictions, then considered for expansion Countywide. The following table identifies these programs and the jurisdictions in which they were to be tested:

TABLE 4-7: SOURCE REDUCTION PILOT PROGRAMS SELECTED IN THE SRRES

Pilot Programs

Waste surveys
Drought-resistant landscape ordinance
School Curriculum and student projects
Yard waste management education and demonstration site
Awards for commercial and industrial generators
Participation in regional waste exchange
Technical assistance to businesses

Jurisdiction Responsible

Fairfield and Vallejo Benicia Suisun City and Dixon Vacaville and Rio Vista Benicia and Suisun City Vacaville and Fairfield Vacaville and Benicia

SOURCE: Cities and County SRREs.

While several of these programs have already been implemented, the pilot model has not been strictly followed. Rather than implementing the programs first in one or two jurisdictions, then sharing the pilot program results with the other jurisdictions, the model followed to date has entailed centrally coordinating distribution of funds to any interested eligible party throughout the County. Specifically, two programs have been implemented as Countywide programs by the LTF: the school curriculum and student projects program, which is being implemented in the form of a grant program for the schools; and yard waste management education and demonstration site (i.e., backyard composting education), which has been implemented Countywide with funding from the County and from the cities. Both of these programs are described above. While implementation of these programs has not precisely followed the pilot model, coordination of the programs by the LTF has enabled those jurisdictions (and individuals in the schools) most interested in the programs to experiment with implementing them first and the other jurisdictions to learn from their experience. The use of County funds, either from Contra Costa import fees, as in the case of the Schools Grant program, or from the landfill tipping fee surcharge, as in the case of the yard waste management program, has been an inexpensive means of spurring program innovation and diffusion throughout the County. It is anticipated that this model for program start-up will continue to be used, rather than a more typical pilot program format.

The LTF has indicated its desire to coordinate implementation of three more of these source reduction programs as Countywide programs: awards for commercial and industrial generators, technical assistance to businesses in the form of workshops, and waste surveys. A preliminary design of these programs is presented above.

The two remaining pilot programs, drought resistant landscape ordinances and participation in a regional waste exchange, will be treated as contingency programs until later in the medium-term planning period. In the mean time, information regarding drought-tolerant and other low-waste gardening and landscaping methods will be made available through the County Guide to Recycling and Waste Reduction, and through backyard composting education programs; information on CALMAX, the California Materials Exchange, will be provided in the County Guide and in outreach programs aimed at business and institutional audiences.

Special Waste Education Programs

Two special waste programs were selected in the SRREs as Countywide programs: discouraging use of automobiles to reduce the generation of waste tires; and encouraging residents to spay and neuter their pets to reduce the generation of dead animals. Both of these programs will be implemented by producing specific information sheets or segments for inclusion in the County Guide to Recycling and Waste Reduction.

Information on automobiles should include a synopsis of environmental and societal reasons to minimize use of automobiles; alternative means of transportation and where to get information about them; and information on where to purchase retreaded and used tires.

Information on spaying and neutering of pets is available from the County Animal Shelter. Their brochures or information sheets could be inserted directly into the new folder version of the guide, or could be reproduced to emphasize the waste prevention and general environmental benefits, as well as the humane considerations, for spaying and neutering pets.

Program Costs:

This program is not expected to require allocation of additional funds; compiling information and printing should, as in the past with the County Guide to Recycling, be performed by existing staff and absorbed into existing budgets.

Central HHW Facility

The development of a central facility to collect, store, and transport household hazardous wastes was selected as a contingency program in the HHWEs. Subsequent to local adoption of the HHWEs, the LTF held discussions on development of such a facility. These discussions resulted in a decision by the jurisdictions and the service providers to continue the system of decentralized, periodic collection events. As a contingency, however, the concept of a central facility may be revisited at a later date. In lieu of a central facility, the LTF will continue to coordinate interjurisdictional cooperation and scheduling of household hazardous waste collection events to ensure that all residents of the County have access to an event on a regular basis.

HHW Materials Exchange

Establishment of a household hazardous materials exchange was selected as a contingency program in the HHWEs. This program was to be implemented in the event a central HHW facility was established, or another program or facility could accommodate a physical site for an HHW materials exchange. Since no such program or facility is planned, this program should remain a contingency until such time as the central HHW facility concept is reconsidered.

In-House Source Reduction

This program is selected as a Countywide program in order to facilitate implementation of policies and practices that promote or result in source reduction in city and County government offices. Implementation of this program will remain the responsibility of the individual jurisdictions, but will be coordinated by the City-County Staff Subcommittee of the LTF. The Subcommittee's role in coordinating implementation will include:

- Compilation of information on waste prevention and waste reduction practices that can be implemented in government offices and corporation yards, by maintenance crews, etc.
- Research of other jurisdictions' policies regarding in-house source reduction, and drafting of a model policy.
- Research on strategies to increase the effectiveness of in-house source reduction programs, such as awards programs for employees, and dissemination of this information to the individual jurisdictions.
- Coordination of publicity regarding the programs in order to ensure that the program serves as a model for the public and for the private sector.

Program Costs

Costs for the program will include personnel costs for conducting research and preparing materials for dissemination to the cities and the County. These efforts may be divided among available city and County staff, or could be performed by a consultant. Funds for this program may originate from contributions from participating jurisdictions.

Costs

Personnel: $80 \text{ hours } @ $50 =$	\$4,000
Materials:	\$ 100

TOTAL \$4,100

Modify Zoning and Building Codes

This program, to be implemented by the individual jurisdictions but coordinated by the City-County Staff Subcommittee of the LTF, has the following features:

- · Amend building codes to require recycling collection areas in new construction; and
- In conditional use permits for new developments, require developers to include in their
 designs adequate storage space for recycled materials, both within units and centrally;
 prepare plans for providing recycling and waste prevention services to new tenants or
 owners; and require use of recycled materials to the greatest extent feasible.

Coordination of this program by the Subcommittee will entail research and development of a model ordinance and model language for conditional use permits for residential and commercial

RESOLUTION NO. 96-5

RESOLUTION ADOPTING THE FINAL DRAFTS OF THE SOLANO COUNTY SITING ELEMENT AND SUMMARY PLAN, COMPONENTS OF THE COUNTYWIDE INTEGRATED WASTE MANAGEMENT PLAN, AND THE DRAFT NEGATIVE DECLARATION

WHEREAS, the people of the State of California have enacted the California Integrated Waste Management Act (Sher, 1989) which, as amended, directs cities, counties, and regional agencies to prepare a Countywide or Regionwide Integrated Waste Management Plan; and,

WHEREAS, the Solano County Countywide Integrated Waste Management Summary Plan, or Summary Plan, has been prepared in accordance with the statutory requirements of the California Public Resources Code (PRC) Sections 41750-41751; and,

WHEREAS, the Solano County Countywide Siting Element, or Siting Element, has been prepared in accordance with the statutory requirements of the California Public Resources Code (PRC) Sections 41700-41721.5; and,

WHEREAS, the Solano County Environmental Review Committee has determined that the approval of the Siting Element and Summary Plan qualifies for a Negative Declaration based on addressed mitigation; and,

WHEREAS, a public hearing has been held with proper notice.

NOW, THEREFORE, BE IT RESOLVED that the City Council of the City of Rio Vista adopts the Final Drafts of the Solano County Siting Element and Summary Plan, Components of the Countywide Integrated Waste Management Plan, and the Draft Negative Declaration.

I, ANITA REINEKE, CITY CLERK OF THE CITY OF RIO VISTA and ex-officio Clerk of the City Council of said City, do hereby certify the above and foregoing to be a full, true and correct copy of a Resolution of said City Council which was regularly introduced, passed and adopted by said City Council at a regular meeting thereof, by the following vote:

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RESOLUTION NO. 96-12

A RESOLUTION OF THE SUISUN CITY COUNCIL ADOPTING THE SUMMARY PLAN AND THE SITING ELEMENT OF THE SOLANO COUNTY COUNTYWIDE INTEGRATE WASTE MANAGEMENT PLAN AND ADOPTING THE NEGATIVE DECLARATION.

WHEREAS, The California Integrated Waste Management Act of 1989, as amended, directs cities, counties and regional agencies to prepare a Countywide or Regionwide Integrated Waste Management Plan; and

WHEREAS, this Plan must contain the Countywide Integrated Waste Management Summary Plan and the Countywide Siting Element; and

WHEREAS, a Negative Declaration has been prepared by the Solano County Department of Environmental Management and adopted by the Solano County Environmental Review Committee; and

WHEREAS, a Public Hearing has been held to receive evidence and reports relative to this resolution.

NOW, THEREFORE, BE IT RESOLVED THAT by the City Council of the City of Suisun City that the Council adopts the Negative Declaration and the Summary Plan and Siting Element of the Solano County Countywide Integrated Waste Management Plan.

PASSED AND ADOPTED at a regular meeting of the City Council of the City of Suisun City, duly held on Tuesday the 20th day of February, 1996 by the following vote:

AYES:

Councilmembers Day, Rundlett, Sanchez, Segala, Spering Councilmembers None

NOES: Councilmembers None
ABSENT: Councilmembers None

ABSTAIN: Councilmembers None

WITNESS my hand and the seal of said City this 20th day of February, 1996.

THIS DOCUMENT IS A TRUE AND CORRECT COPY OF THE ORIGINAL ON FILE IN THIS OFFICE.

ATTEST:

2-22-96

SHARON M. VENTURA, City Clerk and ex-officio Clerk of the Suisun City Council in and for the said City.

By: Sharon Ventuta City Clerk

Sharon Ventura
SHARON VENTURA, City Clerk

RESOLUTION NO. 1996-6

RESOLUTION ADOPTING THE FINAL DRAFTS OF THE SOLANO COUNTY SITING ELEMENT AND SUMMARY PLAN, COMPONENTS OF THE COUNTYWIDE INTEGRATED WASTE MANAGEMENT PLAN, AND THE DRAFT NEGATIVE DECLARATION

WHEREAS, the people of the State of California have enacted the California Integrated Waste Management Act (Sher, 1989) which, as amended, directs cities, counties, and regional agencies to prepare a Countywide or Regionwide Integrated Waste Management Plan; and

WHEREAS, the Solano County Countywide Integrated Waste Management Summary Plan, or Summary Plan, has been prepared in accordance with the statutory requirements of the California Public Resources Code (PRC) Sections 41750-41751; and

WHEREAS, the Solano County Countywide Siting Element, or Siting Element, has been prepared in accordance with the statutory requirements of the California Public Resources Code (PRC) Sections 41700-41721.5; and

WHEREAS, the Solano County Environmental Review Committee has determined that the approval of the Siting Element and Summary Plan qualifies for a Negative Declaration based on addressed mitigation; and

WHEREAS, a public hearing has been held with proper notice.

NOW, THEREFORE, BE IT RESOLVED that the City Council of the City of Vacaville adopts the Final Drafts of the Solano County Siting Element and Summary Plan, Components of the Countywide Integrated Waste Management Plan, and the Draft Negative Declaration.

I HEREBY CERTIFY that the foregoing resolution was introduced and passed at a regular meeting of the City Council of the City of Vacaville, held on the 9th day-of January 1996, by the following vote:

AYES:

Councilmembers Clancy, Kahn, Kimme, Vice-Mayor Tatum and

Mayor Fleming

NOES:

None

ABSENT: None

ATTEST

Kathleen M. Andronico, City Clerk

City Clerk of the City of Vacaville, California

I hereby certify that the foregoing instrument is a true copy of the original instrument on file in my office.

RESOLUTION NO. 96-22 N.C.

BE IT RESOLVED by the Council of the City of Vallejo as follows:

WHEREAS, the California Integrated Waste Management Act directs each county to prepare a Countywide Integrated Waste Management Plan comprised of elements specific to each jurisdiction and elements addressing countywide integration of waste management programs and facilities; and

WHEREAS, California Public Resources Code (Sec. 41700-41721.5) and Code of Regulations (Sec. 18755-18756.7) require counties to prepare a Countywide Siting Element which describes areas that may be needed for adequate landfill capacity; and,

WHEREAS, California Public Resources Code (Sec. 41751) directs counties to prepare a Summary Plan describing significant waste management issues facing local jurisdictions and providing an overview of steps that can be taken to divert 50% of waste generated in the jurisdictions from disposal facilities by the year 2000; and

WHEREAS, the City of Vallejo and other Solano jurisdictions have already adopted Source Reduction and Recycling Element, Household Hazardous Waste Element and Non-disposal Facility Element which serve as the local segments of the countywide IWMP; and

WHEREAS, the Solano County Department of Environmental Management is the lead agency charged with developing the Siting Element and the Summary Plan for incorporation into the Countywide Integrated Waste Management Plan, and

WHEREAS, the Siting Element and Summary Plan must be adopted by a majority of cities with a majority of the countywide population prior to being submitted to the California Integrated Waste Management Board for approval; and

WHEREAS, the Final Draft Siting Element and Final Draft Summary Plan fulfills all statutory and regulatory requirements and provides a blueprint for regional cooperation that will facilitate implementation of Solano County's integrated waste management plans; now, therefore

BE IT RESOLVED, that the Vallejo City Council does hereby adopt the Solano County Integrated Waste Management Plan Siting Element and Solano County Integrated Waste Management Plan Summary Plan.

TO: X Office of Planning and Re		POM. Descriment	of Environmental Management	
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THE PUBLIC RESOURCES	CODE.			
Summary Plan & Siti	ing Element for C	Countywide IWM	iP	
Project Title				
95113016	Gary	Lane	(707) 421-6765	
State Clearinghouse Number				
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Countywide Integrated W Sections 41700 through	Maste Management 41826. The Siti	Plan required ng Element di	n are components of the by Public Resources Cod scusses landfill life an o reduce disposal of sol	. D
This is to advise that the County Jan. 23, 199 and has made (desc)	end Agency Responsible Age	escy'	the above described project on above described project:	
 The project [□will ⊠will r □ An Environmental Impact	ct Report was prepared s prepared for this project [were not] made a consideration [was &	for this project pur ect pursuant to the condition of the app [was not] adopted	resuant to the provisions of CEQA. provisions of CEQA. proval of the project. for this project.	
	nt of Environmental Ma		ord of project approval is available as Street, Fairfield, CA 94533 (70 Principal Planner	
Signature (public agency)	Date			Title
	2-400		-	

Date received for filing at OPR:

NOTICE OF DETERMINATION

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