

Integration Component

4.10 INTEGRATION COMPONENT

The Integration Component provides an overview of the programs selected in the Source Reduction, Recycling, Composting, Special Waste, and Public Education components. The component demonstrates that an integrated solid waste management system has been developed drawing on a wide variety of techniques that will achieve the diversion mandates specified in Section 41780 of Division 30 of the Public Resources Code. In addition, the Integration Component contains an implementation table covering all tasks described in each component.

4.10.1 OVERVIEW OF PLANNED SOLID WASTE MANAGEMENT PRACTICES

The solid waste management programs outlined in the Source Reduction, Recycling, Composting, Special Waste, and Public Education components were designed and organized to facilitate efficient and effective achievement of the CoIWMP. Programs were selected based on their position in the integrated waste management hierarchy and on their ability to contribute to the overall diversion goals. Program feasibility and selection were based on detailed evaluation processes, experience, and local conditions. The type, source, and quantity of the materials targeted by the different diversion programs were reviewed to ensure that the source reduction, recycling, composting, and special waste programs were integrated and compatible. The following programs will most effectively reduce the amount of waste requiring disposal:

Source Reduction

- Local government source reduction programs
 - In-house paper efficiency program
 - Electronic information transfer
 - Waste exchange (SonoMax)
 - Green purchasing policy (joint purchase pools)
- Technical assistance, education, and promotion programs
 - Waste evaluations and audits
 - On-site composting programs
 - Technical assistance
 - Education
 - Social marketing
 - Public recognition
- Regulatory programs under consideration
 - Land use incentives/disincentives
 - Mandatory waste evaluation and reporting
 - Bans on products or packaging
- Economic incentives
 - Loans, grants, and loan guarantees
 - Deposits, refunds, and rebates
- Rate structure modification programs
 - Extended Producer Responsibility
 - Quantity-based end-user fees

Recycling

- Residential recycling activities
 - Single-family curbside recycling
 - Recycled goods procurement program
 - Drop-off / Buy-back centers
 - Multi-unit recycling
- Commercial recycling activities
 - Commercial collection
 - Office paper recycling
- Materials reuse/recovery operations
- Floor-sort activities
 - Special programs (e.g., phone book recycling, Christmas tree recycling, special events recycling)

Composting

- Composting
 - Yard debris composting
 - Source-separated organics composting
 - Resource management facility with MSW Composting

Special Wastes

- Construction and demolition material sorting
- Tire management
- White goods
 - Repair and reuse
 - Scrap metal salvaging
- Wood waste processing
- Litter abatement

Education

- Media relations (radio, PSAs, television, transit, newspaper, on-line, etc.)
- Community-based social marketing techniques
- Commercial/industrial strategy for waste diversion
- Outreach to non-English speaking populations
- Residential recycling promotional activities
- Commercial recycling promotional activities
- Buy-recycled education program
- School education program

Landfill Disposal

- Environmentally safe landfill disposal of wastes at permitted landfills.

4.10.2 INTEGRATION OF COMPONENTS

The components were integrated to maximize the diversion potential of all feasible source reduction,

recycling, and composting options. Preliminary integration and coordination of program alternatives was done in the program evaluation and selection stage. The compatibility of programs with other options was considered when recommending the implementation of a program. As of 2000, these programs have successfully diverted 40% of Sonoma County's waste stream from landfill disposal. The additional programs described in the components are anticipated to divert 50% of the waste stream by 2003 and more than 50% of the waste stream once all the described programs are implemented.

4.10.3 DETERMINATION OF COMPONENT PRIORITIES

Priorities for specific waste management programs has been set within the short-term (2003 to 2008) and medium-term planning periods (2009 to 2018). The following factors were used to determine priorities and timing among the programs identified in the components:

- Location of the component on the waste management hierarchy (i.e., source reduction, recycling and composting, and transformation and disposal)
- Ranking of the various programs reflected in each component
- Waste stream composition and the effectiveness of a program in addressing priority waste types
- Extent to which the program is already used and successfully operating
- Compatibility of the program with other programs

Using these factors, components and their diversion programs have been prioritized to best achieve the goals of integrated waste management.

4.10.4 ACHIEVEMENT OF DIVERSION MANDATES

In its 2000 Annual Report to the CIWMB, the SCWMA reported a diversion rate of 40 percent (see Table 4.2 for diverted tons for 2000). As required by PRC Section 41820(a)(6)(B), the SCWMA filed a time extension request listing the estimated diversion from new and enhanced diversion programs. By the year 2003, the SCWMA member jurisdictions will increase residential recycling by 6.5 percent and commercial recycling by 4.5 percent. The priority waste categories that will be targeted for diversion include paper, metal, wood, yard debris, and plastics. Specific programs that will be expanded and/or implemented to achieve the 50% diversion rate include:

- Residential curbside recycling: Evolution of source-separated residential curbside program from three 12-gallon stacking bins to single-stream automated collection in large wheeled totes. This program improvement is forecast to increase the tonnage of recyclables collected by 40% reflecting an additional estimated diversion of 30 tpd.
- Multi-family recycling collection: Collection of recyclable materials (paper, cardboard, glass, PETE and HDPE plastic food containers) in multi-family complexes. There are approximately 23,000 multi-family units in Sonoma County. Estimated new diversion is 10 tpd.
- Beverage container recycling: Provide collection containers for beverage container recycling at local parks, recreation centers, downtown areas, transit locations and other public areas and develop and implement recycling and public education at special events. Actual new diversion is anticipated to be less than 1% of the waste stream. The largest benefit of this program will be the educational value.

- Construction and demolition recycling facility: Facility would accept debris boxes from construction and demolition sites, providing an economic disincentive to encourage separation of material types (higher disposal fees for debris boxes that are not sorted). Material will be sorted by contractor for recycling. This new program is forecast to increase recyclable tonnage by an estimated 65 tpd.
- Yard debris collection and organics composting: Residential curbside collection of yard debris to be increased to weekly collection. Disposal site segregation of organic materials is included. Organic material is currently composted at the Central Disposal Site. This program improvement is forecast to increase diverted tonnage by 15% reflecting an additional estimated diversion of 25 tpd.
- Floor sorting/drop-off recycling at Central Disposal Site: The new operational improvements under construction at the Central Disposal Site include a 12-bin "Z" wall of recycling bins with a cardboard baler; separate recycling area for tires, metals, and appliances; material reuse and recovery area, household hazardous waste facility; and floor sorting of yard debris, wood waste and other recyclable materials in the new tipping building. These operational improvements are forecast to increase diverted tonnage by 30% reflecting an additional estimated diversion of 30 tpd.
- Public Education: Planning, implementing and follow-up analysis of a social marketing effort, including reviewing available data, designing and placing radio and print advertising, direct mail pieces and other techniques to increase residential recycling behavior, and completing a written evaluation of the campaign. Educational pieces developed by this campaign will be placed on the SCWMA website.

In addition, the Resource Management Facility described in the Composting Component is anticipated to increase the diversion level beyond the 50% mandate.

4.10.5 RECYCLING MARKET DEVELOPMENT ZONE

In 1994 Sonoma and Mendocino Counties were designated as a Recycling Marketing Development Zone (RMDZ). In 1997, a redesignation was requested from the CIWMB to include Lake County, the current Zone Administrator. The RMDZ targets the following materials for feedstock: paper, glass, organics, construction and demolition debris, plastics, paint, and tires.

The Sonoma County Economic Development Board provides assistance services directed toward encouraging the startup, retention and expansion of Sonoma County businesses and jobs, particularly with small businesses; creation of new jobs and employment opportunities. The Sonoma County Business Environmental Alliance, working to promote the voluntary adoption of good environmental practices by local businesses and farms, periodically produces reports, newsletters, and other projects as a resource to businesses. Consulting services are available through the Redwood Empire Small Business Development Center, the Service Corps of Retired Executives Association, and the Private Industry Council. Additional financial incentives include Sonoma County Industrial Development Bonds and Small Business Administration loan program.

Mendocino County offers other incentives through the City of Willits such as the Development Center, the Ukiah Business Development Center, Community Block Grant loans, and Industrial Development Bonds. Other economic development tools include expedited permit processing, general plan and zoning amendments, business counseling and management assistance, and private loans through local banks.

In Lake County, the Lake County Business Outreach and Response Team, a local economic development

corporation, is responsible for coordinating local incentives and maintains a very active network of local, State, and federal service providers. Community Development Services, a local economic development consulting firm, provides administrative support to the Lake County Business Outreach and Response Team.

4.10.6 MEETING THE 15-YEAR DISPOSAL REQUIREMENTS

The SRRE recommends programs that will reduce the amount of waste requiring disposal over the next 15 years. Any solid waste that is not diverted by the recommended programs will be landfilled at the Central Disposal Site. The Facility Capacity Component calculated the capacity required based on the 1992 Waste Generation Study and the 1995/96 Waste Characterization Study, reasonable assumptions about waste management practices and trends, and the available landfill capacity. The facility capacity calculations indicate that capacity is available until 2018.

4.10.7 REGIONAL IMPLEMENTATION OF DIVERSION PROGRAMS

Many of the programs described throughout the SRRE are regional programs, including yard debris composting, wood waste processing, and beverage container recycling, that are most efficiently and cost-effectively performed through a regional system. Regional education and public information programs support source reduction activities, drop-off and buy-back centers, single and multi family residential recycling, commercial recycling, tire and white goods reuse and recycling, and the materials reuse and recovery facility. Cities will continue to be responsible for the single and multi family residential recycling programs operated by their franchised haulers.

4.10.8 IMPLEMENTATION SCHEDULE

The integrated implementation schedule for the new and expanded programs is compiled from the implementation schedules developed for the Source Reduction, Recycling, Composting, Special Waste, and Public Education components. Table 4-46 shows the required annual activities including key implementation tasks for new and expanded programs, responsible entities for each task, funding sources, and task start and milestone dates. Table 4-43 (Facility Component) includes the anticipated diversion rate for each year of the 15-year period.

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Table 4-10: Implementation Schedule for Source Reduction and Recycling Element Programs

PROGRAM AND IMPLEMENTATION TASK	RESPONSIBLE ENTITY	2000				2001				2002				2003				2004				2005				2006				2007				2008					
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4		
		Source Reduction Programs																																					
Local Government Programs																																							
Continue/expand in-house paper efficiency programs	Each jurisdiction																																						
Promote electronic information transfer	Each jurisdiction																																						
Continue to perform internal waste audits	Each jurisdiction																																						
Continue regional waste exchange (SonoMax)	SCWMA																																						
Adopt and implement a Green Purchasing Policy	Each jurisdiction					X																																	
Technical Assistance, Education and Promotion																																							
Continue waste evaluation and audit outreach	SCWMA																																						
Continue distribution of education and informational materials for on-site composting	SCWMA																																						
Continue distribution of source reduction education materials	SCWMA																																						
Use social marketing techniques to identify barriers and benefits to source reduction programs whenever possible.	SCWMA																																						
Promote WRAP, a public recognition program	SCWMA																																						
Rate Structure Modification																																							
Adopt a resolution in support of Extended Producer Responsibility (EPR)	SCWMA					X																																	
Continue efforts to further EPRs through coalitions as they develop	SCWMA																																						
Continue to modify and evaluate garbage rates and revenues to improve the modified variable can rate	County																																						
Evaluate the potential of a variable container rate structure that provides a source reduction incentive	County												X																										
Regulatory Programs																																							
Review and consider implementing mandatory source reduction/recycling plans	Each jurisdiction														X																								
Investigate potential land-use incentives for rehabilitation of old structures	Each jurisdiction									X																													

Table 4-10: Implementation Schedule for Source Reduction and Recycling Element Programs

PROGRAM AND IMPLEMENTATION TASK	RESPONSIBLE ENTITY	2000				2001				2002				2003				2004				2005				2006				2007				2008			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		Continue to review state and federal information on the recyclability of specific products and packaging to determine if bans should be developed	SCWMA																																		
Recycling Programs																																					
Economic Incentives																																					
Encourage innovative and creative methods and consider funding for source reduction, recycling, and education	SCWMA																																				
Continue to evaluate possible deposit/refund program for selected special wastes; implement as appropriate	County																																				
Monitoring and Evaluation	SCWMA			X																																	
Drop-Off/Buyback Program																																					
Continue existing operations of drop-off centers at solid waste facilities	Public Works																																				
Encourage private sector development of new centers	SCWMA																																				
Promote private drop-off/buyback centers in the Annual Recycling Guide	SCWMA																																				
Single-Family Curbside Program																																					
Continue operations of single-family curbside program	Each jurisdiction																																				
Implement single-family/single-stream recycling program, as appropriate	Each jurisdiction															X																					
Develop promotional materials	Each jurisdiction																																				
Promote program in Annual Recycling Guide	SCWMA																																				
Multi-Unit Program																																					
Continue operations of multi-unit collection program	Each jurisdiction; haulers																																				
Expand program to additional multi-unit facilities	Haulers															X																					
Commercial Source-Separation Program																																					
Encourage private sector development of new centers	SCWMA								X																												

Table 4-10: Implementation Schedule for Source Reduction and Recycling Element Programs

PROGRAM AND IMPLEMENTATION TASK	RESPONSIBLE ENTITY	2000				2001				2002				2003				2004				2005				2006				2007				2008			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Promote commercial recycling programs in Annual Recycling Guide	SCWMA								X																												
Office Paper Recovery Program																																					
Evaluate in-house programs; expand program and materials collected as appropriate	Each jurisdiction							X																													
Conduct training sessions and ongoing employee motivational campaigns	Each jurisdiction								X																												
Provide technical assistance program to the private sector	SCWMA	X																																			
Recycled Materials Procurement Program																																					
Evaluate existing Green Purchasing Program of recycled goods	SCWMA											X																									
Adopt new Green Purchasing Policy	Each jurisdiction												X																								
Materials Reuse/Recovery Program																																					
Central: Complete construction of new buildings for reuse operations; relocate existing operations; continue operations	DTPW											X																									
Continue existing operations of reuse/recovery program at Healdsburg and Sonoma transfer stations	DTPW																																				
Floor-Sort Activities																																					
Continue operating existing floor-sort activities at existing transfer stations	DTPW																																				
Complete construction of new tipping building at Central; begin floor-sort activities as part of daily operations	DTPW											X																									
Monitoring and Evaluation	SCWMA																																				
Composting Programs																																					
Yard Debris Composting																																					
Continue operations of existing program	SCWMA																																				
Continue monitoring and evaluating functions with respect to diversion effectiveness, cost effectiveness, product quality, and market development	SCWMA																																				
Continue to evaluate options for expanding markets.	SCWMA																																				

Table 4-10: Implementation Schedule for Source Reduction and Recycling Element Programs

PROGRAM AND IMPLEMENTATION TASK	RESPONSIBLE ENTITY	2000				2001				2002				2003				2004				2005				2006				2007				2008			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Monitoring and Evaluation	SCWMA																																				
Special Waste Programs																																					
Construction and Demolition Debris Program																																					
Evaluate additional landfill bans on C&D materials	DTPW											X																									
Analyze a separation surcharge for debris boxes and other loose loads containing banned materials	DTPW											X																									
Create a C&D separation program to be operated by a private contractor at the Central Disposal Site	DTPW											X																									
Educate permit staff, developers and the public	DTPW												X																								
Tire Program																																					
Continue existing collection program at all solid waste facilities	DTPW																																				
Maintain contractor agreement to market tires	DTPW																																				
White and Brown Goods Program																																					
Educate public about repair, resale and donation opportunities	SCWMA																																				
Educate public about material reuse and recovery operations	SCWMA																																				
Remove hazardous material from items designated as scrap metal and bale for market.	DTPW																																				
Wood Waste Recovery Program																																					
Separate material suitable for repair, reuse, and resale	SCWMA																																				
Separate material for chipping as landscape and/or soil amendment	SCWMA																																				
Educate public on reuse program and availability of landscape products	SCWMA																																				
Monitoring and Evaluation	SCWMA																																				

