SUBCHAPTER 3.8

SOLID AND HAZARDOUS WASTE

Regulatory Background

Solid Waste Management

Hazardous Waste Management

3.8 SOLID AND HAZARDOUS WASTE

3.8.1 Regulatory Background

The Regulatory Background is divided into two sections: Solid Waste and Hazardous Waste.

3.8.1.1 Solid Waste

3.8.1.1.1 Federal

The U.S. EPA is the primary federal agency charged with protecting human health and with safeguarding the natural environment: air, water, and land. The U.S. EPA works to develop and enforce regulations that implement environmental laws enacted by Congress. The U.S. EPA is also responsible for researching and setting national standards for a variety of environmental programs, and delegates to states and tribes the responsibility for issuing permits and for monitoring and enforcing compliance. Since 1970, Congress has enacted numerous environmental laws including RCRA, CERCLA, and the Toxic Substances Control Act (TSCA). 40 CFR Part 258, Subpart~~title~~ D of the RCRA establishes minimum location standards for siting municipal solid waste landfills. Because California laws and regulations governing the approval of solid waste landfills meet the requirements of Subtitle D, the U.S. EPA delegated the enforcement responsibility to the State of California.

3.8.1.1.2 State

With regard to solid non-hazardous wastes, the California Integrated Waste Management Act of 1989 (AB 939), as amended, requires every city and county in the state to prepare a Source Reduction and Recycling Element (SRRE) with its Solid Waste Management Plan that identifies how each jurisdiction will meet the mandatory state waste diversion goals of 25 percent by the year 1995, and 50 percent by the year 2000. Senate Bill 2202 (SB 2202) mandates that jurisdictions continue 50 percent diversion on and after January 1, 2000. The purpose of AB 939 is to facilitate the reduction, recycling, and re-use of solid waste to the greatest extent possible. Penalties for non-compliance with the goals and timelines set forth within AB 939 can be severe, since the bill imposes fines of up to $10,000 per day on cities and counties not meeting these recycling and planning goals (SCAG, 2012). AB 939 has recognized that landfills and transformation facilities are necessary components of any integrated solid waste management system and an essential component of the waste management hierarchy. AB 939 establishes a hierarchy of waste management practices in the following order and priority: 1) source reduction; 2) recycling and composting; and, 3) environmentally safe transformation/land disposal.

CalRecycle (formerly known as the California Integrated Waste Management Board) has numerous responsibilities in implementing the federal and state regulations summarized above. CalRecycle is the state agency responsible for permitting, enforcing and monitoring solid waste landfills, transfer stations, material recovery facilities (MRFs), and composting facilities within California. Permitted facilities are issued Solid Waste Facility Permits (SWFPs) by CalRecycle. CalRecycle also certifies and appoints Local Enforcement

Agencies (LEAs), county or city agencies which monitor and enforce compliance with the provisions of SWFPs. CalRecycle is also responsible for monitoring implementation of AB 939 by the cities and counties. In addition to these responsibilities, CalRecycle also manages the Recycled-Content Materials Marketing Program to encourage the use of specific recycled-content products in road applications, public works projects and landscaping. These products include recycled aggregate, tire-derived aggregate, rubberized asphalt concrete, and organic materials.

AB 939 requires that each county in the state of California prepare a countywide Integrated Waste Management Plan (CIWMP). The CIWMP is a countywide planning document that describes the programs to be implemented in unincorporated and incorporated areas of the county that will effectively manage solid waste, and promote and implement the hierarchy of CalRecycle. The CIWMPs consists of a Summary Plan, a SRRE, a Household Hazardous Waste Element, a Non-Disposal Facility Element, and a Countywide Siting Element.

3.8.1.1.3 Local

A Summary Plan is a solid waste planning document required by Public Resources Code §41751, in which counties or regional agencies provide an overview of significant waste management problems faced by the jurisdiction, along with specific steps to be taken, independently and in concert with cities within their boundaries (SCAG, 2012).

The SRRE consists of the following components: waste characterization, source reduction, recycling, composting, solid waste facility capacity, education and public information, funding, special waste and integration. Each city and county is required to prepare, adopt, and submit to CalRecycle an SRRE, which includes a program for management of solid waste generated within the respective local jurisdiction. The SRREs must include an implementation schedule for the proposed implementation of source reduction, recycling, and composting programs. In addition, the plan identifies the amount of landfill and transformation capacity that will be needed for solid waste which cannot be reduced, recycled, or composted (SCAG, 2012).

Each city and county is required to prepare, adopt and submit to CalRecycle a Household Hazardous Waste Element which identifies a program for the safe collection, recycling, treatment, and disposal of hazardous wastes that are generated by households. The Household Hazardous Waste Element specifies how household hazardous wastes generated within the jurisdiction must be collected, treated, and disposed. An adequate Household Hazardous Waste Element contains the following components: Evaluation of alternatives, program selection, funding, implementation schedule and education and public information (SCAG, 2012).

Each city and county is required to prepare, adopt and submit to CalRecycle, a Non-Disposal Facility Element which includes a description of new facilities and expansion of existing facilities, and all solid waste facility expansions (except disposal and transformation facilities) that recover for reuse at least five percent of the total volume. The Non-Disposal Facility Elements are to be consistent with the implementation of a local jurisdiction's

SRRE. Each jurisdiction must also describe transfer stations located within and outside of the jurisdiction, which recover less than five percent of the material received (SCAG, 2012).

Counties are required to prepare a Countywide Siting Element that describes areas that may be used for developing new disposal facilities. The element also provides an estimate of the total permitted disposal capacity needed for a 15-year period if counties determine that their existing disposal capacity will be exhausted within 15 years or if additional capacity is desired (PRC Sections 41700-41721.5) (SCAG, 2012).

Each county in the SCAG region has created a CIWMP in accordance with AB 939. Below is a brief description of the recent updates to these plans by county.

Los Angeles County

Los Angeles County is revising its Summary Plan and Siting Element to reflect changes in the county's policies and goals, including promotion of conversion technologies, formation of the Los Angeles Regional Agency, update of countywide jurisdiction assistance programs to meet diversion goals, expansion of existing disposal facilities, and development of additional non-disposal facilities for the use of out-of-county disposal facilities (SCAG, 2012).

The county's 2009 Annual Report details the revision process, assesses remaining permitted capacity for the mandated 15-year planning horizon, and outlines seven disposal capacity scenarios, two of which project sufficient capacity to meet future demand through the use of conversion technologies and out-of-county disposal facilities. The Annual Report outlines county solid waste management challenges, including a projected shortfall of permitted disposal capacity in the county, insufficient markets for recovered materials, and steps to promote and develop conversion technologies (SCAG, 2012).

Orange County

Orange County completed the first review of its CIWMP in April 2003. It found sufficient disposal capacity for the 15-year planning horizon, but identified other challenges, including the lack of an operational materials recovery facility in the southern portion of the county, changes in records management to comply with the Disposal Recovery System, and determination of accurate base year data (SCAG, 2012).

In addition to the CIWMP, Orange County's Integrated Waste Management Department has initiated a long-term strategic planning project, the Regional Landfill Options for Orange County, which assesses the solid waste disposal needs of Orange County for the next 40 years. The 2007 Strategic Plan Update for this planning project summarizes progress to maximize capacity at existing landfills, assess alternative technologies and potential out-of-county disposal sites, and expand the Frank R. Bowerman and Olinda Alpha landfills (SCAG, 2012).

Riverside County

Riverside County's CIWMP was approved in 1996, and its 2010 Annual Report found the original plan remained applicable, so no comprehensive update is planned. The Non-Disposal Facility Elements was updated in 2009 and includes plans for four possible solid waste material recovery and transfer facilities; two of which would include household hazardous waste disposal facilities. The Non-Disposal Facility Elements also includes an additional proposed solid waste material recovery facility with capacity for household hazardous waste disposal and one composting facility. The 2008 Five Year Review Report for the CIWMP concluded that the most effective allocation of available resources is to continue to utilize the existing CIWMP as a planning tool augmented by annual reports, and that a revision of the CIWMP is not warranted (SCAG, 2012).

San Bernardino County

San Bernardino County's CIWMP five-year review report was completed in 2007. The report reflects updates to the county's goals and policies, changes to its disposal facilities, and assesses disposal capacity for the mandated 15-year planning horizon. Updated policies include programs to help jurisdictions reach diversion goals, such as additional recycling and composting programs and the development of regional material recovery facilities. The 2007 review found that based on the remaining permitted refuse capacity and projected refuse generation for disposal, the landfills within the county have approximately 26 years of capacity (SCAG, 2012).

Regional Water Quality Control Boards (RWQCB)

New or expanded landfills must submit Reports of Waste Discharge to RWQCBs prior to landfill operations. In conjunction with CalRecycle's approval of SWFPs, RWQCBs issue Waste Discharge Orders which regulate the liner, leachate control and removal, and groundwater monitoring systems at Class III landfills (SCAG, 2012).

South Coast Air Quality Management District (SCAQMD)

The SCAQMD regulates emissions from landfills. Landfill owners/operators must obtain permits to construct and operate landfill flares, cogeneration facilities or other facilities used to combust landfill gas. Owner/operators also are subject to the provisions of SCAQMD Rule 1150.1 - Control of Gaseous Emissions from Landfills. This rule requires the submittal of a compliance plan for implementation of a landfill gas control system, periodic ambient monitoring of surface emissions and the installation of probes to detect the lateral migration of landfill gas (SCAG, 2012).

3.8.1.2 Hazardous Waste

3.8.1.2.1 Federal

Hazardous material, as defined in 40 CFR 261.20 and 22 CCR Article 9, is disposed of in Class I landfills. California has enacted strict legislation for regulating Class I landfills. The

California Health and Safety Code requires Class I landfills to be equipped with liners, a leachate collection and removal system, and a ground water monitoring system.

The HMTA is the federal legislation regulating the trucks that transport hazardous wastes. The primary regulatory authorities are the U.S. DOT, the FHWA, and the Federal Railroad Administration (FRA). The HMTA requires that carriers report accidental releases of hazardous materials to the Department of Transportation at the earliest practicable moment (49 CFR Part 171, Subpart~~chapter~~ C).

RCRA gives the U.S. EPA the authority to control hazardous waste from the "cradle-to-grave." This includes the generation, transportation, treatment, storage, and disposal of hazardous waste by "large-quantity generators" (1,000 kilograms/month or more). Under RCRA regulations, hazardous wastes must be tracked from the time of generation to the point of disposal. At a minimum, each generator of hazardous waste must register and obtain a hazardous waste activity identification number. If hazardous wastes are stored for more than 90 days or treated or disposed at a facility, any treatment, storage, or disposal unit must be permitted under RCRA. Additionally, all hazardous waste transporters are required to be permitted and must have an identification number. RCRA allows individual states to develop their own program for the regulation of hazardous waste as long as it is at least as stringent as RCRA. In California, the U.S. EPA has delegated RCRA enforcement to the State of California.

3.8.1.2.2 State

Authority for the statewide administration and enforcement of RCRA rests with CalEPA's DTSC. While the DTSC has primary responsibility in the state for regulating the generation, transfer, storage and disposal of hazardous materials, DTSC may further delegate enforcement authority to local jurisdictions. In addition, the DTSC is responsible and/or provides oversight for contamination cleanup, and administers state-wide hazardous waste reduction programs. DTSC operates programs to accomplish the following: 1) deal with the aftermath of improper hazardous waste management by overseeing site cleanups; 2) prevent releases of hazardous waste by ensuring that those who generate, handle, transport, store, and dispose of wastes do so properly; and, 3) evaluate soil, water, and air samples taken at sites. The DTSC conducts annual inspections of hazardous waste facilities. Other inspections can occur on an as-needed basis.

Caltrans sets standards for trucks transporting hazardous wastes in California. The regulations are enforced by the CHP. Trucks transporting hazardous wastes are required to maintain a hazardous waste manifest. The manifest is required to describe the contents of the material within the truck so that wastes can readily be identified in the event of a spill.

The storage of hazardous materials in USTs is regulated by CalEPA's State Water Resources Control Board (SWRCB), which has delegated authority to the RWQCB and, typically at the local level, to the local fire department.

The Hazardous Waste Control Act (HWCA) created the State hazardous waste management program, which is similar to but more stringent than the federal RCRA program. The act is

implemented by regulations contained in Title 26 of the CCR, which describes the following required aspects for the proper management of hazardous waste: identification and classification; generation and transportation; design and permitting of recycling, treatment, storage, and disposal facilities; treatment standards; operation of facilities and staff training; and closure of facilities and liability requirements. These regulations list more than 800 materials that may be hazardous and establish criteria for identifying, packaging, and disposing of such waste. Under the HWCA and Title 26, the generator of hazardous waste must complete a manifest that accompanies the waste from generator to transporter to the ultimate disposal location. Copies of the manifest must be filed with DTSC.

The Unified Program required the administrative consolidation of six hazardous materials and waste programs (Program Elements) under one agency, a CUPA. The Program Elements consolidated under the Unified Program are: Hazardous Waste Generator and On-site Hazardous Waste Treatment Programs (also known as Tiered Permitting); Aboveground Petroleum Storage Tank SPCC; Hazardous Materials Release Response Plans and Inventory Program (also known as the Hazardous Materials Accidental Release Plan); UST Program; and Uniform Fire Code Plans and Inventory Requirements. The Unified Program is intended to provide relief to businesses complying with the overlapping and sometimes conflicting requirements of formerly independently managed programs. The Unified Program is implemented at the local government level by CUPAs. Most CUPAs have been established as a function of a local environmental health or fire department. Some CUPAs have contractual agreements with another local agency, a participating agency, which implements one or more Program Elements in coordination with the CUPA.

The Hazardous Waste Source Reduction and Management Review Act of 1989 requires generators of 12,000 kilograms per year of typical operational hazardous waste to conduct an evaluation of their waste streams every four years and to select and implement viable source reduction alternatives. This Act does not apply to non-typical hazardous waste such as asbestos and polychlorinated biphenyls.

3.8.1.2.3 Local

Fire departments and other agencies in the district have a variety of local laws that regulate reporting, storage and handling of hazardous materials and wastes. There are no hazardous waste disposal sites within the jurisdiction of the district. Hazardous waste generated at area facilities, which is not reused on-site, or recycled offsite, is disposed of at a licensed in-state hazardous waste disposal facility. Two such facilities are the Chemical Waste Management Inc. (CWMI) Kettleman Hills facility in King's County, and the Clean Harbors (formerly Safety-Kleen) facility in Buttonwillow (Kern County). Kettleman Hills has an estimated 2.5 million cubic yard capacity. Buttonwillow receives approximately 960 tons of hazardous waste per day and has an approximate remaining capacity of approximately nine million cubic yards.

3.8.2 Solid Waste Management

Permit requirements, capacity, and surrounding land use are three of the dominant factors limiting the operations and life of landfills. Landfills are permitted by the local enforcement

agencies with concurrence from CalRecycle. Local agencies establish the maximum amount of solid waste which can be received by a landfill each day and the operational life of a landfill. Landfills are operated by both public and private entities. Landfills in the district are also subject to requirements of the SCAQMD as they pertain to gas collection systems, dust and nuisance impacts.

Landfills throughout the region typically operate between five and seven days per week. Landfill operators weigh arriving and departing deliveries to determine the quantity of solid waste delivered. At landfills that do not have scales, the landfill operator estimates the quantity of solid waste delivered (e.g., using aerial photography). Landfill disposal fees are determined by local agencies based on the quantity and type of waste delivered.

Over the past thirteen years, disposal tonnage has decreased significantly in the SCAG region as the emphasis on recycling to meet the requirements of AB 939 has served to divert tonnage from landfills and conserve landfill capacity. Table 3.8-1 shows data from CalRecycle regarding the number of tons disposed in 2010 (the most recent year for which information is available), for each county within the jurisdiction of the district (SCAG, 2012).

TABLE 3.8-1

Solid Waste Disposed in 2010 by County

COUNTY	TOTAL TONNAGE
Los Angeles	6,516,738
Orange	3,522,125
Riverside	3,089,583[(a)]
San Bernardino	1,236,744[(a)]
Total	**14,365,190**

Source: CalRecycle, 2012

(a) Reflects landfills within the district; other landfills outside of the district have not been included.

In viewing facilities on a county-by-county basis, it is important to note that landfills in one county may import waste generated elsewhere. Currently, Orange County offers capacity to out-of-county waste at a "tipping fee" low enough to attract waste from Los Angeles and San Bernardino Counties. In Riverside County, the El Sobrante Landfill is licensed to accept up to 10,000 tons of waste per day from Riverside, Los Angeles, Orange, San Diego, and San Bernardino counties (SCAG, 2012).

Since the enactment of AB 939 in 1989, local governments have implemented recycling programs on a widespread basis, making efforts to meet the 25 percent and 50 percent diversion mandates of AB 939. Statewide, CalRecycle reports that diversion increased from 10 percent in 1989 to 42 percent in 2000 and to 48 percent in 2002. As of 2008, the counties in the SCAG region had met their disposal target rates for waste diversion (SCAG, 2012).

A total of 32 Class III active landfills and two transformation facilities are located within the district with a total capacity of 116,796 tons per day and 3,240 tons per day[1], respectively (see Tables 3.8-2 and 3.8-3). The status of landfills within each county in the district is described in Tables 3.8-6 through 3.8-9.

TABLE 3.8-2

Number of Class III Landfills Located and Related Landfill Capacity

COUNTY	NUMBER OF LANDFILLS	CAPACITY (TONS PER DAY)
Los Angeles	12	50,613
Orange	3	23,500
Riverside[(a)]	7	24,314
San Bernardino[(a)]	10	18,369
Total	32	116,796

Source: CalRecycle, 2012

(a) Data presented is for the entire county and not limited to the portion of the county within the SCAQMD jurisdiction.

TABLE 3.8-3

Waste Transformation Facilities within the District and Related Capacity

FACILITY	COUNTY	PERMITTED CAPACITY (TONS PER DAY)
Commerce Refuse-to-Energy Facility	Los Angeles	1,000
Southeast Resource Recovery Facility	Los Angeles	2,240
Total		**3,240**

Source: LACDPW, 2011a

3.8.2.1 Los Angeles County

The Los Angeles Countywide Siting Element addresses landfill disposal. The purpose of the Countywide Siting Element is to provide a planning mechanism to address the solid waste disposal capacity needed by the 88 cities in Los Angeles County and the unincorporated communities for each year of the 15-year planning period through a combination of existing facilities, expansion of existing facilities, planned facilities, and other strategies.

[1] This repsresents the sum of the permitted capacities of the Southeast Resource Recovery Facility at 2,240 tons per day and the Commerce Refuse-To-Energy Facility at 1,000 tons per day. http://www.calrecycle.ca.gov/SWFacilities/Directory/19-AK-0083/Detail/; http://www.calrecycle.ca.gov/SWFacilities/Directory/19-AA-0506/Detail,

In 2010, residents and businesses in the county disposed of 8.77 million tons of solid waste at Class III landfills and transformation facilities located in and out of the county (see Tables 3.8-4 and 3.8-5). In addition, the amount of inert waste disposed at permitted inert waste landfills totaled 124,820 tons (LACDPW, 2011).

TABLE 3.8-4

Annual Disposal Tonnage for 2010 (County of Los Angeles)

FACILITY TYPE	VOLUME	UNITS
In-County Class III Landfills	6,313,263	tons per year
Transformation Facilities	539,129	tons per year
Exports to Out-of-County Landfills	1,917,993	tons per year
Subtotal MSW[(a)] Disposed	**8,770,385**	tons per year
Permitted Inert Waste Landfills	124,820	tons per year
Grand Total Disposed	**8,895,205**	tons per year

Source: LACDPW, 2011
(a) MSW = Municipal Solid Waste

TABLE 3.8-5

Average Daily Disposal Rate for 2010 (Based on Six Operating Days)
(County of Los Angeles)

FACILITY TYPE	VOLUME	UNITS
In-County Class III Landfills	20,235	tons per day
Transformation Facilities	1,728	tons per day
Exports to Out-of-County Landfills	6,147	tons per day
Subtotal MSW[(a)] Disposed	**28,110**	tons per day
Permitted Inert Waste Landfills	400	tons per day
Grand Total Disposed	**28,510**	tons per day

Source: LACDPW, 2011
(a) MSW = Municipal Solid Waste

3.8.2.1.1 Waste Generation

Based on each jurisdiction's approved diversion rate by CalRecycle, the 2006 countywide diversion rate is estimated at 58 percent. For the purpose of long-term disposal capacity planning, a conservative diversion rate of 55 percent will be assumed for 2010. Therefore, given 8.77 million tons were disposed, it is estimated that the county generates approximately 19.5 million tons or an average of 62,467 tpd based on six operating days per week. Translating it into per capita generation rate, each person in the county generated 10.86 lbs of solid waste each day (LACDPW, 2011).

The Los Angeles County Department of Public Works (LACDPW) conducted a survey requesting landfill operators in the county to provide updates to their estimated remaining disposal capacity based on permitted disposal levels and years of remaining operation. Based on the results of the survey, the total remaining permitted Class III landfill capacity in the county is estimated at 243 million tons (see Table 3.8-6).

TABLE 3.8-6

Los Angeles County Landfill Status[(a)]

SOLID WASTE FACILITIES	TOTAL YR 2010 (MILLION TONS)	2010 AVERAGE TONS PER DAY	PROJECTED 2011 AVERAGE TONS PER DAY	PERMITTED TONS/DAY	REMAINING PERMITTED CAPACITY (MILLION TONS)	ESTIMATED YEAR OF CLOSURE [b]
Landfills:						
Antelope Valley	0.154	492	453	1,800	15.5	2022
Burbank	0.038	121	117	240	2.846	2053
Calabasas	0.253	812	842	3,500	6.031	2025
Chiquita Canyon	1.090	3,493	3,718	6,000	65.673	2019
Lancaster	0.257	825	780	1,700	0.886	2012
Pebbly Beach (Avalon)	0.003	10	10	49	0.058	2020
Puente Hills	1.841	5,901	5,523	13,200	12.516	2013
Scholl Canyon	0.245	786	753	3,400	4.104	2024
Sunshine Canyon	2.448	7,845	7,577	12,100	80.805	2037
Whittier (Savage Canyon)	0.075	240	245	350	3.788	2048
Azusa[(c)]	0.125	400	379	6,500	50.844	--
Total	**6.529**	**20,925**	**20,397**	**48,839**	**243.051**	--
Transformation Facilities:						
Commerce Refuse-to-Energy Facility	0.101	322	326	1,000	467	Not Applicable
Southeast Resource Recovery Facility	0.489	1,566	1,483	2,240	1,602	Not Applicable
Total	**0.59**	**1,888**	**1,809**	**3,240**	**2,069**	

(a) Source: Los Angeles County Integrated Waste Management Plan, Los Angeles County Department of Public Works, 2011.
(b) Source: SCAG, 2012
(c) Currently only accepting inert waste.

Because of community resistance to the extension of operating permits for existing facilities and to the opening of new landfills in the county, and the dwindling capacity of those landfills with operating permit time left, the exact date on which landfill capacity within the

county will be exceeded is uncertain. Landfill remaining life based on Solid Waste Facility Permits in the county ranges from one year at one facility, to as many as 44 years at another (LACDPW, 2011).

Several landfills have proposed facility expansions. The City of Palmdale approved the expansion of the Antelope Valley Landfill for an additional 8.96 million tons of capacity and approximately eight years of landfill life. The Chiquita Canyon Landfill was given approval to expand in February 2009. Finally, the Lancaster Landfill is proposing to increase the daily permitted disposal to 3,000 tons per day and extend the 2012 closure date.

The LACDPW has reviewed the county's ability to meet daily disposal demands under different scenarios (e.g., landfill expansions, alternative technologies, waste-by-rail systems, and reduction/recycling). Under some of the scenarios, the county will have a difficult time meeting future disposal demands. In order to ensure disposal capacity to meet the county needs, jurisdictions in Los Angeles County must continue to pursue all of the following strategies: 1) expand existing landfills; 2) study, promote, and develop conversion technologies; 3) expand transfer and processing infrastructure; 4) develop a waste-by-rail system; and, 5) maximize waste reduction and recycling.

3.8.2.2 Orange County

Orange County currently has three active Class III landfills. They include the following: Prima Deshecha, Frank R. Bowerman and Olinda Alpha. The Prima Deshecha Landfill has a permitted capacity of 4,000 tons per day and an expected closure date of 2067. The Frank R. Bowerman Landfill has a maximum capacity of 11,500 tons per day, and an expected closure date of 2053. The Olinda Alpha Landfill has a permitted capacity of 8,000 tons per day. The current permit expiration of the Olinda Alpha Landfill is 2021 (see Table 3.8-7).

TABLE 3.8-7

Orange County Landfill Status

LANDFILL	TOTAL YR 2010	PERMITTED TONS/DAY	REMAINING PERMITTED CAPACITY (CUBIC YARDS)	ESTIMATED YEAR OF CLOSURE
Frank R. Bowerman	1,395,735	11,500	205,000,000	2053
Olinda Alpha	1,728,854	8,000	38,578,383	2021
Prima Deshecha	397,536	4,000	87,384,799	2067
Total	**3,522,125**	**23,500**	**330,963,182**	

Source: CalRecycle, 2012

CalRecycle is responsible for ensuring that the county's waste is disposed of in a way that protects public health, safety and the environment. Long-range strategic planning is necessary to ensure that waste generated by the county is safely disposed of and that the county's future disposal needs are met. The Regional Landfill Options for Orange County (RELOOC) program was created for this reason. RELOOC is a 40-year strategic plan being

prepared by the IWMD. The purpose of RELOOC is to evaluate options for solid waste disposal for Orange County citizens. The plan was last updated in September 2007 (RELOOC, 2007)

Orange County cities and unincorporated areas have completed, adopted and implemented a Countywide Integrated Waste Management Plan. Orange County cities and unincorporated areas have residential curbside recycling programs in place.

3.8.2.3 Riverside County

Riverside County has six active sanitary landfills with a total capacity of 23,914 tons per day. Each of these landfills is located within the unincorporated area of the county and is classified as Class III. El Sobrante Landfill is a privately operated landfill open to the public. Assuming no expansion, the six major sites have closure dates projected from as early as 2011 to as late as 2186. The projected date of closure for each landfill is tentative and could be affected by engineering, environmental, and waste flow issues (see Table 3.8-8).

TABLE 3.8-8

Riverside County Landfill Status

LANDFILL	TOTAL TONS YR 2010	PERMITTED TONS/DAY	REMAINING PERMITTED CAPACITY (CUBIC YARDS)	ESTIMATED YEAR OF CLOSURE
Badlands	516,675	4,000	14,730,025	2024
Blythe	16,256	400	4,159,388	2047
Desert Center	34	60	23,246	2011 [a]
El Sobrante	2,025,468	16,054.00	145,530,000	2045
Lamb Canyon	529,743	3,000	18,955,000	2021
Mecca II	0	0	0	Closed
Oasis	1,407	400	149,597	2186
Total	**3,089,583**	**23,914**	**183,547,256**	

Source: CalRecycle, 2012

(a) CalRecycle Solid Waste Information System database lists the Desert Center Landfill as active, but also lists a "ceased operation date" of January 1, 2011, which reflects the estimated closure date on the U.S. EPA permit. SWIS summary of report of inspection on August 2, 2012 states the facility is active.

3.8.2.4 San Bernardino County

The County of San Bernardino Solid Waste Management Division (SWMD) is responsible for the operation and management of the County of San Bernardino's solid waste disposal system which consists of five regional landfills and nine transfer stations.

San Bernardino County has seven public landfills within the district's boundaries with a combined permitted capacity of 18,129 tons per day. Mid-Valley/Fontana Landfill is

estimated to reach final capacity by the end of 2033, San Timoteo by 2016, Victorville by 2047, Barstow by 2071, Landers by 2018, California Street by 2042 and Colton Landfill by 2017 (see Table 3.8-9).

TABLE 3.8-9

San Bernardino County Landfill Status

LANDFILL	TOTAL TONS YR 2010	PERMITTED TONS/DAY	REMAINING PERMITTED CAPACITY (CUBIC YARDS)	ESTIMATED YEAR OF CLOSURE
Mid-Valley/Fontana	535,876	7,500	67,520,000	2033
San Timoteo	123,500	1,000	11,360,000	2016
Victorville Sanitary	249,657	3,000	81,510,000	2047
Barstow Sanitary	64,612	1,500	924,401	2071
Landers Sanitary	46,407	1,200	765,098	2018
California Street	79,435	829	6,800,000	2042
Colton Landfill	137,257	3,100	2,700,000	2017
Total	**1,236,744**	**18,129**	**171,579,499**	

Source: CalRecycle, 2012

3.8.3 Hazardous Waste Management

Hazardous material, as defined in 40 CFR 261.20 and 22 CCR Article 9, is disposed of in Class I landfills. California has enacted strict legislation for regulating Class I landfills. The California Health and Safety Code requires Class I landfills to be equipped with liners, a leachate collection and removal system, and a ground water monitoring system.

There are no hazardous waste disposal sites within the jurisdiction of the SCAQMD. Hazardous waste generated at area facilities, which is not reused on-site, or recycled off-site, is disposed of at a licensed in-state hazardous waste disposal facility. Two such facilities are the Chemical Waste Management (CWM) Kettleman Hills facility in King's County, and the Laidlaw Environmental Services facility in Buttonwillow (Kern County).

The Kettleman Hills landfill is operating close to capacity, with reportedly less than one percent of capacity remaining or about 30,000 to 40,000 cubic yards and has reduced the amount of hazardous waste accepted at the landfill (Fresno Bee, 2012). CWM has applied to DTSC for a modification to its RCRA permit at Kettleman Hills to allow for the expansion of its hazardous waste landfill, Unit B-18, by 14 acres and about five million cubic yards. CWM has also applied to the U.S. EPA to both renew and modify its existing permits to allow for the expansion of the landfill. The expansion would provide another 12-14 years of life. DTSC has put approval of the landfill expansion on hold as additional environmental investigations, studies and monitoring have continued.

Buttonwillow is operated by Laidlaw Environmental Services and receives approximately 900 tons of hazardous waste per day. Buttonwillow has an approximate remaining capacity

of approximately 8,890,000 cubic yards. The expectant life of the Buttonwillow Landfill is approximately 40 years[2].

Hazardous waste also can be transported to permitted facilities outside of California. The nearest out-of-state landfills are U.S. Ecology, Inc., located in Beatty, Nevada; Laidlaw Environmental Services located in Lake Point, Utah; Envirosafe Services, in Grandview, Idaho; Chemical Waste Management Inc. in Carlyss, Louisiana, and Waste Control Specialists in Andrews, Texas. Incineration is provided at Laidlaw Environmental Services, Inc., located in Deer Park, Texas.

In 2011, less than 1.25 million tons of hazardous waste were generated in the four counties that comprise the district, and about two million tons of hazardous waste were generated in California (see Table 3.8-10). Those amounts are reduced from the totals in 2005 by approximately 17 and 34 percent respectively. The most common types of hazardous waste generated in the district include waste oil, inorganic solid waste, contaminated soils, organic solids, asbestos-containing waste, and unspecified oil-containing wastes. Because of the population and economic base in southern California, a large portion of hazardous waste is generated within the district. Not all wastes are disposed of in a hazardous waste facility or incinerator. Many of the wastes generated, including waste oil, are recycled within the Basin.

[2] Personal communication, Marianna Buoni, Laidlaw Environmental Services, August 2012.

TABLE 3.8-10

Hazardous Waste Generation in the Basin – 2011
(By County) (tons per year)

WASTE NAME	LOS ANGELES	ORANGE	RIVERSIDE	SAN BERNARDINO	COUNTY TOTAL (BASIN)[A]	STATEWIDE TOTAL
Waste & Mixed Oil	237,722	8,624	2,955	45,182	294,483	525,308
Inorganic Solid Waste	159,070	30,383	1,027	20,372	210,852	284,252
Contaminated Soils	100,570	3,649	--[b]	18,047	122,266	391,089
Organic Solids	60,179	45,970	1,529	5,742	113,420	119,263
Asbestos Waste	36,194	6,275	2,558	3,955	48,982	129,463
Unspecified Oil-Containing Waste	30,216	5,975	1,437	13,048	50,676	81,419
Unspecified Solvent Mixture	20,675	827	281	418	22,201	55,196
Aqueous Solutions w/Organic Residues	19,858	2,003	846	7,014	29,721	57,410
Polychlorinated Biphenyls	18,145	498	210	659	19,782	24,855
Polymeric Resin Waste	--	3,174	--	--	3,174	3,477
Household Waste	--	1,687	293	625	2,605	10,169
Unspecified Aqueous Solution	15,085	1,679	601	2,334	19,699	37,583
Unspecified Organic Liquid Mixture	16,345	984	363	1,741	19,433	20,910
Aqueous Solution with Metals[c]	--	734	691	751	2,176	38,052
Unspecified Sludge Waste	--	--	1,266	--	1,266	16,863
Alkaline Solution (pH >= 12.5) W/O Metals	--	--	688	--	688	7,843
Liquids w/Arsenic >= 500 mg/l[d]	270,813	--	--	--	270,813	135,521
Blank/Unknown	4,662	--	267	1,720	6,649	47,829
Totals	**989,534**	**112,462**	**15,012**	**121,608**	**1,238,886**	**1,986,502**

Source: DTSC, 2011

[a] (--) Not on list of top twenty waste totals generated in the county.

[b] Data presented is for county total and not limited to the portion of the county within SCAQMD jurisdiction.

[c] Smaller than restricted levels.

[d] The data for this waste code is as reported in the California Hazardous Waste Tracking System database; however, one or more of the data entries for this waste category appear to be in error.