4.13.2 Solid Waste

4.13.2.1 Introduction

This solid waste analysis addresses impacts related to municipal solid waste generation and disposal, and compliance with Assembly Bill (AB) 939 diversion requirements. The total remaining permitted inert[748] (or unclassified landfill) waste capacity in Los Angeles County was estimated to be approximately 60.2 million tons in 2010. Based on the average countywide 2010 disposal rate of 400 tons per day (tpd), this capacity would be exhausted in 412 years.[749] Therefore, there is no anticipated shortfall in disposal capacity for inert waste within the County and, as per the Initial Study prepared as part of the Revised SPAS Notice of Preparation (see Appendix A, *Notice of Preparation/Scoping*), inert waste disposal is not addressed any further within this section.

4.13.2.2 Methodology

This analysis compares the municipal solid waste generation projected for the SPAS alternatives to baseline solid waste generation and conditions, characterized by existing solid waste sources, diversion mechanisms, and methods of disposal. This analysis estimates on-airport solid waste generation under baseline conditions, as well as solid waste generation at buildout of the SPAS alternatives in 2025. The solid waste generation estimated for 2025 is based on the projected increase in passenger activity level at LAX. That increase in passenger activity level is anticipated to occur irrespective of the SPAS alternatives (i.e., natural growth in passenger activity at LAX). The impacts analysis in this section addresses future solid waste generation, with each SPAS alternative in place by 2025, compared to the solid waste generation associated with baseline conditions.

Several different sources, means, and factors were used for calculating solid waste generation. Solid waste generation factors are typically provided in terms of solid waste generation (in tons or pounds per day or year) per unit (e.g., square feet of building space, employees, and passengers). Solid waste generation is projected by multiplying the factor by the appropriate number of units. This analysis focuses on passenger-related solid waste, as cargo activities would not be affected by SPAS. All solid waste generation values presented in the impacts analysis represent estimates and were projected based on the factors and methods described below.

Baseline on-airport solid waste generation was most recently estimated by LAWA as part of a solid waste audit of year 2000 conditions, as documented in the *LAX Waste Characterization and Quantification Study Final Report*.[750] As discussed below, for this EIR analysis, these data have been updated with 2010 passenger counts and diversion requirements. Data contained in this report were used to derive solid waste generation factors for passenger-related activities at LAX, which, in turn, were used to estimate solid waste generation for the baseline (2010) and future (2025) conditions for this EIR analysis.

The year 2000 data yield a passenger-related generation factor of 0.862 pounds of waste per passenger, or 431 tons per million annual passengers (MAP).[751] This figure was used to calculate LAX's baseline annual waste generation by multiplying it by the annual passenger count for 2010. However, this solid waste generation factor was adjusted to reflect the City's 70 percent diversion objective by 2015, which is approximately a 3 percent diversion rate increase from the 2000 study. According to the *LAX Recycling*

---

748 Inert waste is waste that does not undergo any significant physical, chemical, or biological transformations. Examples of inert waste include construction and demolition debris.

749 County of Los Angeles, Department of Public Works, 2010 Annual Report on the Countywide Summary Plan and Countywide Siting Element, October 2011.

750 City of Los Angeles, Los Angeles World Airports, LAX Waste Characterization and Quantification Study - Final Report, prepared by Cascadia Consulting Group, Inc., Mary Loquvan Consulting, Sky Valley Associates, and TerraStat Consulting, January 2002.

751 City of Los Angeles, Los Angeles World Airports, LAX Waste Characterization and Quantification Study - Final Report, prepared by Cascadia Consulting Group, Inc., Mary Loquvan Consulting, Sky Valley Associates, and TerraStat Consulting, January 2002.

Plan,[752] the airport's goal is to meet Mayor Villaraigosa's challenge of 70 percent diversion by 2015, five years ahead of the state goal. The adjusted factor of 0.784 pounds per passenger, or 392 tons per MAP, was used for all future year solid waste generation calculations in this analysis.

Information regarding off-airport solid waste collection, disposal, and diversion within the region was obtained from agencies responsible for solid waste management in the area. Data regarding the capacities of regional landfills is current to 2009[753] and is representative of 2010 baseline conditions.

In addressing solid waste generation projected to occur at buildout of the SPAS alternatives, the total quantity of solid waste that would be generated by each of the SPAS alternatives was estimated using the factors described above. As noted previously, passenger activity at LAX is projected to increase as a result of natural growth with or without implementation of the SPAS alternatives. Passenger levels at LAX in 2025 would be the same under all of the alternatives, and the amount of solid waste generated would, therefore, also be the same. The resultant solid waste generation was compared to the anticipated capacity at the disposal facility that accepts waste from LAX. The implementation of various solid waste-related City and County of Los Angeles plans and policies was also taken into account.

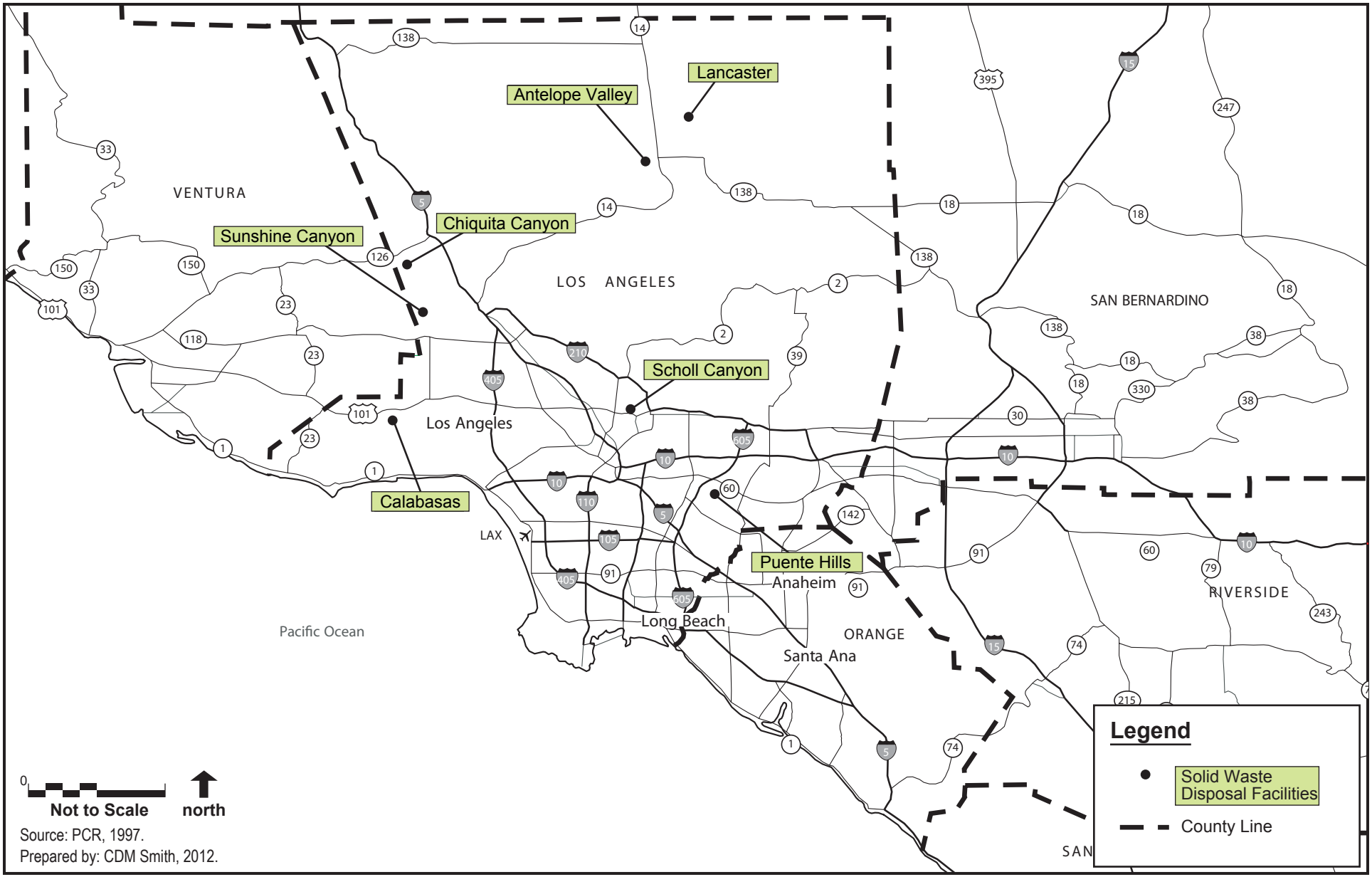
4.13.2.3 Existing Conditions

Regional Solid Waste Collection, Disposal, and Diversion

Solid waste in the City of Los Angeles is collected by municipal agencies and private refuse haulers. Waste collected by these entities is disposed of at regional landfills. There are seven major landfills currently accepting municipal solid waste in Los Angeles County. **Figure 4.13.2-1** illustrates the locations of these landfills. **Table 4.13.2-1** provides pertinent information including the owner/operator, permitted daily capacity, average daily tonnage, approximate closure date for each of the landfills, and approximate distance from LAX.

752 City of Los Angeles, Los Angeles World Airports, LAX Recycling Plan: Guidelines for Recycling Operations at LAX, Version 1.1, June 2010.

753 City of Los Angeles, Department of Public Works, Bureau of Sanitation, Policy, Program and Facility Plan Summary, 2009.



LAX Specific Plan Amendment Study Draft EIR	**Location of Major Regional Solid Waste Disposal Facilities**	Figure **4.13.2-1**

This page intentionally left blank.

Table 4.13.2-1

Regional Municipal Solid Waste Landfills

Landfill	Owner/Operator	Permitted Daily Capacity (tpd)	Average Daily Tonnage (tpd)	Approx. Closure Date	Approx. Distance From LAX (miles)
Antelope Valley	Waste Management of CA	3,600	492	2061	67
Calabasas[1]	LACSD[2]	3,500	812	2025	33
Chiquita Canyon[3]	Chiquita Canyon LLC	6,000	3,493	2016	40
Lancaster[4]	Waste Management of CA	1,700	825	2012	82
Puente Hills[5]	LACSD	13,200	5,901	2013	31
Scholl Canyon[6]	LACSD	3,400	786	2014	32
Sunshine Canyon	Browning-Ferris Industries	12,100	7,845	2031	82
Total		**43,500**	**20,154**		

1 Calabasas does not accept waste from portions of the City of Los Angeles, including the LAX area.
2 LACSD = Sanitation Districts of Los Angeles County
3 Chiquita Canyon Landfill has a pending expansion proposal.
4 Waste Management proposes to increase the daily permitted disposal capacity from 1,700 tpd to 3,000 tpd and extend the 2012 closure date to when the landfill reaches permitted capacity.
5 The County of Los Angeles received a 10-year permit extension for the Puente Hills landfill, extending its service life to 2013. This facility does not accept waste from LAX, as LAX is located outside of its wasteshed.
6 Scholl Canyon does not accept waste from the City of Los Angeles.

Source: County of Los Angeles, Department of Public Works, 2010 Annual Report on the Countywide Summary Plan and Countywide Siting Element, October 2011.

There are also several other small landfills in Los Angeles County that currently accept solid waste. Most of these facilities are restricted from receiving waste from outside of a specified wasteshed. In addition, several landfills in Riverside, San Bernardino, and Orange counties receive waste from the City of Los Angeles. Only a small portion of the City of Los Angeles-generated waste is disposed of in landfills outside of Los Angeles County.[754] Currently, the cost of hauling material to facilities outside the County limits the volume of waste disposed of at these facilities.

A portion of City of Los Angeles-generated waste is also disposed of through transformation. Transformation involves the incineration of municipal solid waste in order to generate energy. As of 2009, Southeast Resource Recovery Facility and Commerce Refuse to Energy Facility are the only two transformation facilities that operate in the County. These facilities have a combined permitted capacity of 2,069 tpd (based on six operating days per week), which is equivalent to 645,600 tons per year (tpy).[755]

The mid- to long-term municipal solid waste disposal capacity available in Los Angeles County is uncertain and is based on a variety of dynamic parameters, including new regulations, the ability to permit expanded or new sites, the economic viability of recycling, flow control legislation, and waste generation rates. Other factors governing municipal solid waste disposal include increasing solid waste management costs and more restrictive regulations governing landfill operations. Even with maximum levels of source reduction, recycling, composting, and other diversion, and assuming that potential expansions at existing landfills are permitted, new landfill sites and landfilling alternatives will be a necessary part of the solid waste management system in the Los Angeles region. With many of Los Angeles County's currently permitted landfills facing closure or expiration of their permits, additional landfill sites must be located and approved or operating permits at existing landfills must be extended, or there will be a severe shortfall in solid waste disposal capacity within the Los Angeles region.

754 County of Los Angeles, Department of Public Works, 2010 Annual Report on the Countywide Summary Plan and Countywide Siting Element, October 2011.
755 County of Los Angeles, Department of Public Works, 2010 Annual Report on the Countywide Summary Plan and Countywide Siting Element, October 2011.

As of December 31, 2010, the remaining permitted Class III (municipal solid waste) landfill capacity in Los Angeles County was estimated at 124 million tons.[756] Based on 2010 projections, Los Angeles County will cumulative need 156 million tons of capacity by 2025, which falls short of its capacity. Los Angeles County could experience a shortfall in permitted daily capacity as early as 2014 even with the development of all in-County landfill expansions, including the proposed Lancaster and Chiquita Canyon Landfill expansions.[757]

All solid waste from LAX is transferred to the Sunshine Canyon Landfill for disposal. Sunshine Canyon Landfill is located in Sylmar, approximately 82 miles from LAX. Landfill capacity is evaluated in terms of total disposal capacity as well as daily throughput rate. Sunshine Canyon Landfill has a maximum permitted daily throughput of 12,100 tpd, with 5,500 tpd allotted for City use and 6,600 for County use. As of July 31, 2007, this facility had a remaining total disposal capacity of 80,805,000 tons (107,740,000 cubic yards), and currently has an estimated closure date of 2031.[758] The types of waste accepted at this facility include construction and demolition debris, green materials, industrial, inert, and mixed municipal.

In light of landfill capacity problems throughout the state, in 1989, the state legislature enacted AB 939.[759] AB 939 was designed to focus on source reduction, recycling and composting, and environmentally safe landfilling and transformation activities. This Act required cities and counties to divert 25 percent of all solid waste from landfills and transformation facilities by 1995, and 50 percent by year 2000. These percentages are based on the amount of waste generated in the 1990 baseline year.

California Public Resources Code Section 41781(c) provides for exceptions or adjustments to the diversion goals due to changing conditions. Subdivision (C) states: "[t]he amount of solid waste from which the required reductions are measured shall be the amount of solid waste existing on January 1, 1990, with future adjustments for increases or decreases in the quantity of waste caused only by changes in population or changes in the number or size of governmental, industrial, or commercial operations in the jurisdiction."

AB 939 encourages source reduction activities as the preferred management approach. Recycling is the second best alternative, including composting of green and food wastes. Waste that is disposed of through transformation, the combustion or incineration of waste, is not considered diverted under AB 939. Landfilling is the least preferred solid waste disposal alternative (see Public Resources Code Section 40051).

In 2006, the City disposed of 3.65 million tons of waste.[760] Both the County and City of Los Angeles are striving to continue to decrease solid waste generation through source reduction and recycling, as well as attempting to site new landfills and extend the permits of existing landfills in order to ensure adequate landfill disposal capacity for the region. These efforts are prescribed and documented in a number of plans, which are briefly described below.

- In accordance with the requirements of AB 939, the County of Los Angeles Department of Public Works prepared the *Countywide Integrated Waste Management Summary Plan* in 1997.[761] The primary purpose of the plan is to describe the steps that will be taken by the County to achieve the waste diversion goals mandated by AB 939. The *2010 Annual Report on the Countywide Summary*

---

756 County of Los Angeles, Department of Public Works, 2010 Annual Report on the Countywide Summary Plan and Countywide Siting Element, October 2011.

757 County of Los Angeles, Department of Public Works, 2010 Annual Report on the Countywide Summary Plan and Countywide Siting Element, October 2011.

758 County of Los Angeles, Department of Public Works, 2010 Annual Report on the Countywide Summary Plan and Countywide Siting Element, February 2011.

759 Public Resources Code, Section 40000 et seq.

760 City of Los Angeles, Department of Public Works, Bureau of Sanitation, Fact Sheet: Waste Generation and Disposal Projections, 2009.

761 County of Los Angeles, Department of Public Works, Environmental Programs Division, Los Angeles County Countywide Integrated Waste Management Summary Plan, June 1997.

Plan and Countywide Siting Element[762] includes, among other things, the County's strategy for maintaining adequate disposal capacity through 2025 under nine scenarios. The Scenario Analysis conducted for this update demonstrated that the County would be able to meet the disposal capacity requirements of AB 939 by permitting and developing all proposed in-County landfill expansions, utilizing available or planned out-of-County disposal capacity, developing infrastructure to facilitate exportation of waste to out-of-County landfills, and developing conversion and other alternative technologies. With implementation of these strategies, as well as enhancement of diversion programs and increasing the Countywide diversion rate, the County may be able to ensure adequate disposal capacity through 2025. However, under current conditions, there will be a shortfall of permitted solid waste disposal capacity in the County by 2025.[763]

- In accordance with the requirements of AB 939, the County of Los Angeles Department of Public Works prepared the Countywide Siting Element (CSE). The purpose of the CSE is to address the management of that portion of solid waste that remains after cities and communities have completed their recycling, composting, and other waste diversion activities. The CSE provides a means for proper planning and siting of solid waste transformation and land disposal facilities on a countywide basis. It also offers strategies and establishes siting criteria to be used as an aid to evaluate sites proposed for development of needed solid waste facilities.[764] The County's CSE is currently undergoing revision, which is expected to be completed in fall 2013.
- AB 939 mandated that each city and county in California prepare a Source Reduction and Recycling Element (SRRE) to document the plan the city or county would use to achieve AB 939 diversion requirements. The County of Los Angeles' SRRE includes a solid waste generation study to quantify and characterize existing solid waste generation, diversion, and disposal, and identifies proposed measures to increase source reduction, recycling, and composting activities in the County. Additionally, the SRRE proposes education and public information programs and means to fund the recommended activities.[765] The City of Los Angeles' SRRE includes a strategic action plan for diverting solid waste from landfills, which was last updated in 2001.[766] It establishes diversion objectives for specific programs and targeted generators that would demonstrate exceedance of the diversion objectives of the *City Solid Waste Management Policy Plan*. It also includes public education goals defined by specific programmatic elements.
- The City of Los Angeles is currently developing the Solid Waste Integrated Resources Plan (SWIRP), also known as the *Zero Waste Plan*, which will serve as the 20-year master plan for the City's solid waste and recycling programs. The SWIRP will outline City objectives to provide sustainability, resource conservation, source reduction, recycling, renewable energy, maximum material recovery, and public health and environmental protection for solid waste management planning through 2025 leading Los Angeles toward being a "zero waste" city. The City's goals for this plan is to reach 70 percent diversion by 2013, 87 percent diversion by 2020, 90 percent diversion by 2025, and 93 percent diversion by 2030. Achieving zero waste will require radical changes in three areas: product creation (manufacturing and packaging), product use (use of sustainable and recyclable products), and product disposal (resource recovery or landfilling). Changes in these areas will affect how we live, work, and interact with the environment. Stakeholders will be instrumental in guiding this visionary 20-year solid waste management plan. This plan will seek input from stakeholders representing a broad section of the community, from diverse cultural backgrounds and income levels,

762 County of Los Angeles, Department of Public Works, 2010 Annual Report on the Countywide Summary Plan and Countywide Siting Element, October 2011.

763 County of Los Angeles, Department of Public Works, 2010 Annual Report on the Countywide Summary Plan and Countywide Siting Element, October 2011.

764 County of Los Angeles, Department of Public Works, 2010 Annual Report on the Countywide Summary Plan and Countywide Siting Element, October 2011.

765 County of Los Angeles, Department of Public Works, Waste Management Division, Los Angeles County Source Reduction and Recycling Element, August 1993.

766 County of Los Angeles, Department of Public Works, Waste Management Division, Los Angeles County Source Reduction and Recycling Element, August 1993.

and will result in the development and implementation of a 20-year master plan for the City's solid waste and recycling programs.[767]

- In addition to the plans described above, the Los Angeles City Council adopted Ordinance No. 181519 in December 2010 (signed by the Mayor in January 2011) to assist in meeting the diversion goals of AB 939.[768] Ordinance No. 181519 amended sections of the City's municipal code to require that construction and demolition waste generated within the City of Los Angeles be taken to a City-certified construction demolition waste processing facility.

In response to AB 939 and as a result of the plans described above, the City has implemented source reduction, recycling, composting, and market development programs for the City's waste stream disposed of by the Bureau of Sanitation.[769] The City's programs concentrate on removing barriers to stimulate voluntary programs and creating markets for recyclable materials. The programs rely heavily on commercial and industrial waste generators for the majority of their materials diversion, as they have greater amounts of homogeneously separated materials ready for transport. Curbside recycling and yard waste collection have been extended to all households, and the Solid Resources Citywide Recycling Division is working with City government, the Bureau of Sanitation, and private collection companies to develop programs and policies that target specific private generators for cost-effective diversion and recycling programs. As a result of these efforts, the City of Los Angeles exceeded the mandated 50 percent diversion rate with a 58.8 percent diversion rate in 2000.[770]

Solid Waste Diversion at LAX

In response to AB 939, LAWA developed a comprehensive, facility-wide recycling program at LAX in 1992. This program includes collection of recyclable materials generated by LAWA and within airport terminals and airfield areas; collection of materials from airlines and tenants at no cost to participants; independent airline and tenant recycling programs; and source reduction through purchase of recycled products and reuse of materials. Materials accepted in LAX's recycling program are cardboard, wood pallets, plastic, beverage containers, mixed paper, and metals. LAWA also recycles construction and demolition materials, green waste, batteries, and electronic waste. Green waste is sent to the City's joint processing center to be composted. Donations of packaged and prepared food from airline caterers are sent to local food banks. Recycling projects under development include installation of "amenity units" within terminals, which would incorporate recycling collection bins beneath advertising space; recycling of coffee grounds and filters into compost; expanding existing tenant cooking oil and grease recycling efforts into an airport-wide collection program; and a possible mandatory recycling clause in all airport concessions contracts.

In addition to these efforts, subsequent to the approval of the LAX Master Plan, LAWA adopted the LAWA *Sustainable Airport Planning, Design and Construction Guidelines*[771] for implementation on all airport projects. These Guidelines provide goals and performance standards for recycling of materials during both construction and operation of airport facilities in accordance with the provisions of LAX Master Plan Commitment SW-1, Implement an Enhanced Recycling Program (see Section 4.13.2.5 below).

---

767 County of Los Angeles, Department of Public Works, Policy, Program, and Facility Plan Summary, May 30, 2009.

768 City of Los Angeles, Ordinance No. 181519, January 6, 2011, Available: http://clkrep.lacity.org/onlinedocs/2009/09-3029_ord_181519.pdf, accessed January 24, 2012.

769 The Bureau of Sanitation is responsible for the transportation and disposal of waste generated by single-family residences, certain multi-family residences, and City department facilities (e.g., parks). Industrial, commercial, and most multi-family residences must contract with private companies for their solid waste transportation and disposal needs.

770 City of Los Angeles, Los Angeles World Airports, LAX Recycling Plan: Guidelines for Recycling Operations at LAX, Version 1.1, June 2010.

771 City of Los Angeles, Los Angeles World Airports, Sustainable Airport Planning, Design and Construction Guidelines for Implementation of All Airport Projects, Version 5.0, prepared by LAWA and CDM Smith, February 2010.

As a result of the efforts undertaken to date, in 2009, LAWA recycled 19,670 tons of waste and diverted 631 tons to other uses, for an overall diversion rate of 66.4 percent.[772] LAWA's goal for LAX is to meet the City's objective of 70 percent diversion by 2015, five years ahead of the state goal.[773]

Baseline LAX Solid Waste Generation and Diversion

Solid waste is generated at LAX by numerous on-airport uses, including passengers, visitors, LAWA uses, and tenant activities. The greatest variety of solid waste is generated by tenant activities, which include airlines, cargo handlers, caterers, flight service operators, concessionaires, and service- and aviation-related support businesses. Solid waste management is conducted by both LAWA and private companies. The solid waste management system at LAX is one component of a larger solid waste system described above, encompassing the entire Los Angeles region. Several waste characterization studies have been conducted to determine how much trash is generated at LAX, the most recent addressing waste generation in 2000. As noted in **Table 4.13.2-2**, the 2000 study concluded that passenger-related solid waste disposal at LAX in 2000 was 431 tons per MAP, or 0.862 pounds per passenger.[774] Based on this generation factor, and passenger volumes for 2010, baseline passenger-related solid waste generation for LAX is 69.7 tpd (25,472 tpy).

Table 4.13.2-2

Passenger-Related Solid Waste Generation at LAX

Year	Solid Waste Factor (Per Year)	Units	Total Generation (tons per day)[2]	Total Generation (tons per year)[2]
Baseline Conditions (2010)	431 tons/MAP	59.1 MAP	69.7	25,472
Future Conditions (2025)[1]	392 tons/MAP	78.9 MAP	84.7	30,928

[1] Same for all SPAS alternatives.
[2] Approximate calculations; numbers are rounded.

Source: CDM Smith, 2012.

4.13.2.4 Thresholds of Significance

A significant solid waste impact would occur if the direct and indirect changes in the environment that may be caused by the particular SPAS alternative would result in one or more of the following future conditions:

- A net increase in project-related solid waste generation that could not be accommodated by existing or permitted regional landfills or other disposal facilities.
- Conflicts with solid waste policies and objectives intended to help achieve state or local waste diversion goals.

These thresholds are based upon guidance provided in the L.A. CEQA Thresholds Guide.

772 City of Los Angeles, Los Angeles World Airports, LAX Recycling Plan: Guidelines for Recycling Operations at LAX, Version 1.1, June 2010.
773 City of Los Angeles, Los Angeles World Airports, LAX Recycling Plan: Guidelines for Recycling Operations at LAX, Version 1.1, June 2010.
774 City of Los Angeles, Los Angeles World Airports, LAX Recycling Plan: Guidelines for Recycling Operations at LAX, Version 1.1, June 2010.

4.13.2.5 Applicable LAX Master Plan Commitments and Mitigation Measures

As part of the LAX Master Plan, LAWA adopted three LAX Master Plan commitments and one mitigation measure pertaining to solid waste (denoted with "SW") in the Alternative D Mitigation Monitoring and Reporting Program (MMRP). All three of the commitments and the one mitigation measure are applicable to implementation of the SPAS alternatives. However, two of the commitments pertain to construction-related waste. As noted in Section 4.13.2.1, construction waste is not addressed in this Draft EIR. The mitigation measure pertains to cumulative solid waste impacts. These impacts, and the related mitigation measure, are addressed in Chapter 5, *Cumulative Impacts*. The analysis herein considers the LAX Master Plan commitment listed below that is specific to project-related municipal solid waste generation.

- **SW-1. Implement an Enhanced Recycling Program.**

  LAWA will enhance their existing recycling program, based on successful programs at other airports and similar facilities. Features of the enhanced recycling program will include: expansion of the existing terminal recycling program to all terminals, including new terminals; development of a recycling program at LAX Northside/Westchester Southside; lease provisions requiring that tenants meet specified diversion goals; and preference for recycled materials during procurement where, practical and appropriate.[775]

4.13.2.6 Impacts Analysis

This section describes the impacts related to solid waste for the SPAS alternatives. For each alternative, the effects are discussed as they relate to overall solid waste generation and compliance with AB 939 diversion requirements. The analysis focuses on passenger-related solid waste generation. **Table 4.13.2-2** identifies projected passenger-related municipal solid waste generation for the alternatives as well as under 2010 baseline conditions.

4.13.2.6.1 Alternative 1

Passenger activity levels at LAX are forecasted to be 78.9 MAP by 2025 as a result of projected natural growth. This increase in passenger activity is expected with or without implementation of this alternative. As noted in Section 4.13.2.2 above, the municipal solid waste generation factor used for this analysis is 0.784 pounds per passenger, which accounts for a future diversion rate of 70 percent. Using this methodology, passenger-related activity would generate a total of 84.7 tpd (30,928 tpy) of passenger-related solid waste in 2025 (see **Table 4.13.2-2**). This would be an increase of 15 tpd compared to baseline conditions (a 22 percent increase). Sunshine Canyon Landfill, which handles all solid waste from LAX, is permitted to accept 12,100 tpd of solid waste, but only averages 7,845 tpd. Therefore, Sunshine Canyon Landfill has enough capacity to accommodate the increase in solid waste associated with Alternative 1 without using any other regional landfills. As noted in Section 4.13.2.3 above, Sunshine Canyon Landfill is estimated to close in 2031, which is well beyond the 2025 SPAS planning horizon. The solid waste generated by passenger activity in 2025 is projected to be within the capacity of Sunshine Canyon Landfill, an existing/permitted regional landfill; therefore, impacts to solid waste disposal capacity would be less than significant.

Under Alternative 1, LAWA would continue to implement existing programs aimed at complying with LAX Master Plan Commitment SW-1, Implement an Enhanced Recycling Program, reducing overall waste generation and disposal, and meeting the 70 percent diversion rate. As noted above, LAWA has adopted the LAWA *Sustainable Airport Planning, Design and Construction Guidelines* for implementation on all airport projects. These Guidelines provide goals and performance standards for recycling of materials

[775] As noted in Section 4.13.2.3, LAWA has implemented a number of programs in accordance with this LAX Master Plan commitment. In addition, LAWA's *Sustainable Airport Planning, Design and Construction Guidelines* provide goals and performance standards for recycling of materials during both construction and operation of airport facilities in accordance with the provisions of LAX Master Plan Commitment SW-1.

during both construction and operation of airport facilities in accordance with the provisions of LAX Master Plan Commitment SW-1. LAWA has also implemented an enhanced recycling program at LAX as outlined in the *LAX Recycling Plan*, which provides updated guidelines for recycling operations at LAX, and is developing new programs to increase diversion rates at LAX. With the implementation and continued enhancement of existing recycling programs in accordance with LAX Master Plan Commitment SW-1, and compliance with future diversion requirements, Alternative 1 would not conflict with solid waste policies and objectives intended to help achieve the requirements of AB 939 and impacts to such policies and objectives would be less than significant.

4.13.2.6.2 Alternative 2

Under Alternative 2, impacts associated with solid waste generation and disposal would be the same as described above for Alternative 1. As mentioned under Alternative 1, passenger activity levels at LAX are forecasted to be 78.9 MAP by 2025 as a result of projected natural growth and would be the same under all alternatives. As passenger levels under Alternative 2 would be the same as under Alternative 1, the volume of passenger-related solid waste generated under this alternative would be the same. Because Sunshine Canyon Landfill has sufficient physical and permitted capacity to accept this waste, impacts associated with solid waste disposal would be less than significant.

As with Alternative 1, implementation and future enhancement of existing recycling programs at LAX, in accordance with LAX Master Plan Commitment SW-1, Implement an Enhanced Recycling Program, and future diversion requirements, would continue under Alternative 2. Therefore, impacts to diversion-related policies and objectives under this alternative would be less than significant.

4.13.2.6.3 Alternative 3

Under Alternative 3, impacts associated with solid waste generation and disposal would be the same as described above for Alternative 1. As mentioned under Alternative 1, passenger activity levels at LAX are forecasted to be 78.9 MAP by 2025 as a result of projected natural growth and would be the same under all alternatives. As passenger levels under Alternative 3 would be the same as under Alternative 1, the volume of passenger-related solid waste generated under this alternative would be the same. Because Sunshine Canyon Landfill has sufficient physical and permitted capacity to accept this waste, impacts associated with solid waste disposal would be less than significant.

As with Alternative 1, implementation and future enhancement of existing recycling programs at LAX, in accordance with LAX Master Plan Commitment SW-1, Implement an Enhanced Recycling Program, and future diversion requirements, would continue under Alternative 3. Therefore, impacts to diversion-related policies and objectives under this alternative would be less than significant.

4.13.2.6.4 Alternative 4

Under Alternative 4, impacts associated with solid waste generation and disposal would be the same as described above for Alternative 1. As mentioned under Alternative 1, passenger activity levels at LAX are forecasted to be 78.9 MAP by 2025 as a result of projected natural growth and would be the same under all alternatives. As passenger levels under Alternative 4 would be the same as under Alternative 1, the volume of passenger-related solid waste generated under this alternative would be the same. Because Sunshine Canyon Landfill has sufficient physical and permitted capacity to accept this waste, impacts associated with solid waste disposal would be less than significant.

As with Alternative 1, implementation and future enhancement of existing recycling programs at LAX, in accordance with LAX Master Plan Commitment SW-1, Implement an Enhanced Recycling Program, and future diversion requirements, would continue under Alternative 4. Therefore, impacts to diversion-related policies and objectives under this alternative would be less than significant.

4.13.2.6.5 Alternative 5

Under Alternative 5, impacts associated with solid waste generation and disposal would be the same as described above for Alternative 1. As mentioned under Alternative 1, passenger activity levels at LAX are forecasted to be 78.9 MAP by 2025 as a result of projected natural growth and would be the same under all alternatives. As passenger levels under Alternative 5 would be the same as under Alternative 1, the volume of passenger-related solid waste generated under this alternative would be the same. Because Sunshine Canyon Landfill has sufficient physical and permitted capacity to accept this waste, impacts associated with solid waste disposal would be less than significant.

As with Alternative 1, implementation and future enhancement of existing recycling programs at LAX, in accordance with LAX Master Plan Commitment SW-1, Implement an Enhanced Recycling Program, and future diversion requirements, would continue under Alternative 5. Therefore, impacts to diversion-related policies and objectives under this alternative would be less than significant.

4.13.2.6.6 Alternative 6

Under Alternative 6, impacts associated with solid waste generation and disposal would be the same as described above for Alternative 1. As mentioned under Alternative 1, passenger activity levels at LAX are forecasted to be 78.9 MAP by 2025 as a result of projected natural growth and would be the same under all alternatives. As passenger levels under Alternative 6 would be the same as under Alternative 1, the volume of passenger-related solid waste generated under this alternative would be the same. Because Sunshine Canyon Landfill has sufficient physical and permitted capacity to accept this waste, impacts associated with solid waste disposal would be less than significant.

As with Alternative 1, implementation and future enhancement of existing recycling programs at LAX, in accordance with LAX Master Plan Commitment SW-1, Implement an Enhanced Recycling Program, and future diversion requirements, would continue under Alternative 6. Therefore, impacts to diversion-related policies and objectives under this alternative would be less than significant.

4.13.2.6.7 Alternative 7

Under Alternative 7, impacts associated with solid waste generation and disposal would be the same as described above for Alternative 1. As mentioned under Alternative 1, passenger activity levels at LAX are forecasted to be 78.9 MAP by 2025 as a result of projected natural growth and would be the same under all alternatives. As passenger levels under Alternative 7 would be the same as under Alternative 1, the volume of passenger-related solid waste generated under this alternative would be the same. Because Sunshine Canyon Landfill has sufficient physical and permitted capacity to accept this waste, impacts associated with solid waste disposal would be less than significant.

As with Alternative 1, implementation and future enhancement of existing recycling programs at LAX, in accordance with LAX Master Plan Commitment SW-1, Implement an Enhanced Recycling Program, and future diversion requirements, would continue under Alternative 7. Therefore, impacts to diversion-related policies and objectives under this alternative would be less than significant.

4.13.2.6.8 Alternative 8

Under Alternative 8, impacts associated with solid waste generation and disposal would be the same as described above for Alternative 1. As mentioned under Alternative 1, passenger activity levels at LAX are forecasted to be 78.9 MAP by 2025 as a result of projected natural growth and would be the same under all alternatives. As passenger levels under Alternative 8 would be the same as under Alternative 1, the volume of passenger-related solid waste generated under this alternative would be the same. Because Sunshine Canyon Landfill has sufficient physical and permitted capacity to accept this waste, impacts associated with solid waste disposal would be less than significant.

As with Alternative 1, implementation and future enhancement of existing recycling programs at LAX, in accordance with LAX Master Plan Commitment SW-1, Implement an Enhanced Recycling Program, and

future diversion requirements, would continue under Alternative 8. Therefore, impacts to diversion-related policies and objectives under this alternative would be less than significant.

4.13.2.6.9 Alternative 9

Under Alternative 9, impacts associated with solid waste generation and disposal would be the same as described above for Alternative 1. As mentioned under Alternative 1, passenger activity levels at LAX are forecasted to be 78.9 MAP by 2025 as a result of projected natural growth and would be the same under all alternatives. As passenger levels under Alternative 9 would be the same as under Alternative 1, the volume of passenger-related solid waste generated under this alternative would be the same. Because Sunshine Canyon Landfill has sufficient physical and permitted capacity to accept this waste, impacts associated with solid waste disposal would be less than significant.

As with Alternative 1, implementation and future enhancement of existing recycling programs at LAX, in accordance with LAX Master Plan Commitment SW-1, Implement an Enhanced Recycling Program, and future diversion requirements, would continue under Alternative 9. Therefore, impacts to diversion-related policies and objectives under this alternative would be less than significant.

4.13.2.6.10 Summary of Impacts

Improvements associated with the proposed alternatives would not, in themselves, alter passenger-related municipal solid waste generation. Passenger activity at LAX would increase by 2025 due to natural growth with or without implementation of the SPAS alternatives, and those future passenger activity levels would be the same under each of the alternatives. As a result of increased passenger activity levels, passenger-related solid waste generation at LAX would increase by 22 percent compared to baseline (2010) conditions. The increase in solid waste generation would be the same under all alternatives. The Sunshine Canyon Landfill has sufficient physical and permitted capacity to accommodate this increase in solid waste generation. LAWA would continue to implement and enhance existing programs aimed at reducing waste generation, which are designed to fulfill LAX Master Plan Commitment SW-1, Implement an Enhanced Recycling Program, and increase the diversion rate to meet the state's 70 percent requirement by 2020. Therefore, under all alternatives, impacts to solid waste disposal capacity and to diversion-related policies and objectives associated with the solid waste generated from the increased number of passengers would be less than significant.

4.13.2.7 Mitigation Measures

Implementation of LAX Master Plan Commitment SW-1, Implement an Enhanced Recycling Program, would ensure that impacts related to solid waste disposal associated with Alternatives 1 through 9 would be less than significant. Therefore, no mitigation measures specific to SPAS are required.

This page intentionally left blank.