

Technical Report
LAX Master Plan Supplement to the Draft EIS/EIR

S-7. Supplemental Solid Waste Technical Report

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1. INTRODUCTION

This Technical Report presents detailed information related to solid waste generation and disposal associated with implementation of Alternative D - Enhanced Safety and Security Plan, of the Los Angeles International Airport (LAX) Master Plan. This report provides data and analysis in support of the Supplement to the Draft Environmental Impact Statement/Environmental Impact Report (EIS/EIR) for the LAX Master Plan prepared pursuant to the National Environmental Policy Act (NEPA) and the California Environmental Quality Act (CEQA).

This Technical Report provides supporting information pertaining to Year 2000 conditions and analysis results for Alternative D that are supplemental to the material presented in Section 4.19, *Solid Waste*, of the Supplement to the Draft EIS/EIR, and to Technical Report 10, *Solid Waste Technical Report*, of the Draft EIS/EIR. Impacts associated with the information contained in this Technical Report are addressed in Section 4.19, *Solid Waste*, of the Supplement to the Draft EIS/EIR.

Technical Report 10, *Solid Waste Technical Report*, of the Draft EIS/EIR provides detailed information pertaining to the general approach and methodology used in the analysis, regional and local context, and factors used in projecting solid waste generation.

2. GENERAL APPROACH AND METHODOLOGY

Airport, non-airport, and construction activities generate solid waste. Because different types of activities are associated with individual land uses, different factors were used to determine the volumes of waste generated by each use. The following provides an updated discussion of the methodology used to calculate solid waste from airport land uses. The methodologies for calculating solid waste from non-airport land uses and from construction and demolition waste have not changed since publication of the Draft EIS/EIR. These methodologies are described in detail in Technical Report 10, *Solid Waste Technical Report*, of the Draft EIS/EIR.

For on-airport land uses, 1996 baseline on-airport solid waste generation was estimated during the *LAX Waste Audit and Recovery Program Update*¹ as described in Technical Report 10, *Solid Waste Technical Report*, of the Draft EIS/EIR. For preparation of the Draft EIS/EIR, factors to project solid waste generation for the No Action/No Project Alternative, Alternatives A, B, C, and D were developed based on the historical volumes of waste generated by the main two functional activities at the airport (passenger-related and cargo-related), as described below. These factors were then adjusted to account for anticipated future diversion, in compliance with Assembly Bill (AB) 939. For this Supplement to the Draft EIS/EIR, LAWA's updated report of solid waste generation and diversion at LAX in 2000² was reviewed to determine the accuracy of these adjusted factors.

Cargo-handling activities generated 3,374 tons (6.75 million pounds) of waste for disposal in 1994. The generation rate for cargo activities in 1994 was 4.5 pounds of solid waste per ton of cargo. This factor was adjusted to reflect 50 percent diversion, yielding a future estimated generation rate of 2.8 pounds of solid waste per ton of cargo.

By 2000, the amount of solid waste generated by cargo-handling activities at LAX had decreased to 3,172 tons (or 6.34 million pounds) of waste. During this same period, approximately 2.2 million tons of cargo were handled at LAX. Using these figures, cargo-handling activities generated approximately 2.8 pounds of solid waste per ton of cargo, the same factor that was originally projected in the Draft EIS/EIR. This factor was used in calculating solid waste generation for the No Action/No Project Alternative and Alternatives A, B, C, and D.

For purposes of this analysis, all non-cargo wastes generated at LAX were assumed to be a function of the annual number of passengers. In 1994, waste generation was approximately 620 tons per MAP. As with the cargo factor, this factor was adjusted to reflect 50 percent diversion, yielding a future estimated generation rate of 387 tons/MAP.

In 2000, approximately 29,065 tons of non-cargo waste were generated for disposal. Based on the 67 million annual passengers (MAP) using LAX in 2000, waste generation was determined to be

¹ Recycling by Nature, *Los Angeles International Airport Waste Audit and Recovery Program Update*, June 1995.

² Los Angeles World Airports, *LAX Waste Characterization & Quantification Study Final Report*, January 2002.

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approximately 431 tons per MAP. This factor was used in determining passenger solid waste generation for Year 2000 conditions.

The actual passenger-related solid waste generation rate in 2000 did not decrease to the level projected in the Draft EIS/EIR (i.e., 387 tons per MAP). However, because solid waste generation rates are expected to continually decrease and diversion is expected to increase at LAX, the rate of 387 tons per MAP continues to be used in determining passenger solid waste generation for the No Action/No Project Alternative and Alternatives A, B, C, and D for future conditions.

The factors used in the analysis are summarized in **Table S1**, Airport Solid Waste Generation Factors.

Table S1

Airport Solid Waste Generation Factors

Activity	1996 Baseline	Year 2000	2015
Cargo	4.5 lbs/tons	2.8 lbs/tons	2.8 lbs/tons
Passengers	620 tons/MAP	431 tons/MAP	387 tons/MAP

Source: Camp Dresser & McKee Inc., 2003.

In the 1996 baseline year, LAWA was diverting approximately 20 percent of the waste generated at LAX. Technical Report 10, *Solid Waste Technical Report*, of the Draft EIS/EIR, assumed that a 50 percent diversion would be accomplished by 2000 in compliance with AB 939, and this diversion rate was reflected in both the 2005 and 2015 horizon year analyses. As of 2000, LAWA exceeded the mandated 50 percent diversion rate by diverting approximately 67 percent of the waste generated at LAX.³

3. AFFECTED ENVIRONMENT/ENVIRONMENTAL BASELINE

The following discussion provides updated information pertaining to the estimated capacities of regional municipal solid waste disposal facilities. Updated information is also provided through the Year 2000 relative to City of Los Angeles solid waste diversion levels and solid waste generation, reduction, and recycling at LAX. No material changes to the affected environment/environmental baseline have occurred that alter the conclusions of the Draft EIS/EIR.

3.1 Municipal Solid Waste Disposal Capacity

Solid waste in the City of Los Angeles and the region is disposed of mainly at landfills within Los Angeles County. Currently, eight major landfills accept municipal waste in the county. The locations of these landfills are illustrated in Figure 1, Location of Active Regional Solid Waste Disposal Facilities, of the Draft EIS/EIR. Updated information pertaining to these landfills is provided in **Table S2**, Regional Municipal Solid Waste Landfills, below.

³ Los Angeles World Airports (LAWA), Los Angeles International Airport, Waste, Disposal, Recycling and Generation, 2002.

Table S2

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 ¹	Arklin Brothers Enterprises, USA Waste	1,400	600	2011 ⁹	67
Bradley West ²	Waste Management Inc.	10,000	2,200 ⁹	2006 ⁹	30
Calabasas ³	LACSD	3,500	1,100 ⁹	2018	33
Chiquita Canyon ⁴	Republic Services of California	6,000 ⁹	5,300 ⁹	2011 ⁹	40
Lancaster ⁵	Waste Management Inc.	1,700 ⁹	1,200 ⁹	2032 ⁹	82
Puente Hills ⁶	LACSD	12,000	13,200 ⁹	2013 ⁹	31
Scholl Canyon ⁷	LACSD	3,400	1,200	2024 ⁹	32
Sunshine Canyon ⁸	Browning-Ferris Industries	11,500 ⁹	6,500 ⁹	2006 ⁹	82
Total		49,500	31,300		

¹ Antelope Valley Landfill accepts only Class III MSW, but processes transfers of other classes of solid waste generated within the City of Los Angeles. As a result, the facility only disposes of approximately 600 tpd of the 2,000 tpd it receives. The additional 1,400 tpd the facility consists primarily of soil used for beneficial uses, particularly as cover soil, as well as concrete and wood that are recycled. Currently, the landfill has capacity and is permitted to operate until 2011; however, an expansion anticipated to be permitted by 2004 will extend that service life to 2037.

² Bradley West Landfill accepts Class III MSW, inert waste, and wood/yard waste (for diversion), and receives approximately 50 percent of its waste stream from the City of Los Angeles.

³ Calabasas Sanitary Landfill (SLF), operated by the County Sanitation Districts of Los Angeles County (LACSD), accepts only Class III MSW, approximately 40 percent of which is from the City of Los Angeles. Calabasas does not accept waste from portions of the City of Los Angeles, including the LAX area.

⁴ Chiquita Canyon SLF accepts Class III MSW and inert waste, approximately 82 percent of which originates within the City of Los Angeles.

⁵ Lancaster Landfill accepts only Class III MSW, but processes transfers of other classes of solid waste from the City of Los Angeles. The actual tonnage disposed at the facility is about 1,200 tpd of the 1,400 tpd it receives. The additional 200 tpd of material handled at the facility consists primarily of soil for beneficial uses, as well as green wastes and concrete/building materials, which are recycled.

⁶ Puente Hills Landfill accepts only Class III MSW, and receives a weekday average of 13,200 tpd, with approximately 6,000 tpd on Saturdays; average weekly tonnage is equal to permitted capacity of 72,000 tons per week. Currently capacity limitations would force closure of the facility by late 2005; however, the County is pursuing expansion of the landfill, to extend its service life to 2013. This facility does not accept waste from LAX, as LAX is located outside of its watershed.

⁷ Scholl Canyon does not accept waste from the City of Los Angeles.

⁸ Sunshine Canyon SLF accepts only Class III MSW, including waste generated within the City of Los Angeles. Browning-Ferris Industries has applied for a permit to expand operations in the City of Los Angeles. This application has not received approval from the City of Los Angeles. If approved, the permit would extend the closure date of Sunshine Canyon to 2028

⁹ Modified since publication of the Draft EIS/EIR to provide updated information. This modification does not alter the conclusions of the Draft EIS/EIR.

Sources: Connie Christian, Project Engineer, Sanitation Districts of Los Angeles County, Personal Communication, March 3, 2003; Bruce Matlock, Health & Safety Compliance Supervisor, Waste Management, Inc., Personal Communication, October 16, 2002; Larry Mendoza, Solid Waste Systems Administrator, Sanitation Districts of Los Angeles County, Personal Communication, January and October 2002, and March 3, 2003; Matt Terrell, Landfill Manager, Chiquita Canyon Sanitary Landfill, Personal Communication, February 4, 2002; Dave Thompson, Environmental Specialist, City of Los Angeles, Environmental Affairs Department, Personal Communication, February, 2002 and January, 2003, and February 27, 2003; Mike Williams, District Landfill Manager, Waste Management of California, Inc., Personal Communication, October, 2002 and March 11, 2003.

As indicated in **Table S2**, Regional Municipal Solid Waste Landfills, operators have applied for a permit to expand the Sunshine Canyon landfill into an area under the jurisdiction of the City of Los Angeles. This application has not received approval from the City of Los Angeles and if approved, the permit would extend the closure date of Sunshine Canyon to 2028. In addition, the County Sanitation Districts of Los Angeles (LACSD) recently received a 10-year extension of its operating permit for the Puente Hills Landfill.

In December 2002, LACSD purchased Mesquite Regional Landfill in Imperial County to accept municipal waste from Southern California communities by use of rail hauls. A Master Plan will be developed for the Mesquite Regional Landfill and LACSD estimates landfill operations would start by 2010.⁴ LACSD recently signed agreements to purchase Eagle Mountain Landfill in Riverside County; however, the purchase agreements have not been finalized and are currently subject to legal challenges. Both of the

⁴ Grace Chan, Head of Solid Waste Planning and Permitting Section of the Solid Waste Management Department, Sanitation Districts of Los Angeles County, Personal Communication, February 28, 2003.

landfills have received the necessary environmental and local permits for operation and could provide over a hundred years of disposal capacity for Los Angeles County residents and businesses. However, Eagle Mountain and Mesquite Landfill are proposed municipal landfills and are currently not operating at this time.

3.2 City of Los Angeles Solid Waste Diversion

Because departments within the City of Los Angeles control a significant portion of the waste stream generated within its jurisdiction, the city has developed city department diversion programs. **Table S3**, City of Los Angeles Department Solid Waste Diversion, provides updated diversion levels through 2000 for each of the eight city departments whose disposal and diversion of waste directly affects citywide diversion.

Table S3

City of Los Angeles Department Solid Waste Diversion

City Department	Diversion ¹ (tons)			
	1995	1996	1997	2000
Bureau of Sanitation	394,774	550,980	579,671	635,810
Bureau of Street Services	288,795	270,621	305,668	205,618
Department of Recreation and Parks	105,570	105,570	105,570	221,758
Department of Airports (renamed Los Angeles World Airports)	9,796	6,727	21,060	64,291
Harbor Department (renamed Los Angeles World Ports)	3,759	13,268	15,115	71,809
Department of Water and Power	14,067	9,470	9,372	20,244
Department of General Services/City Facilities Recycling	2,471	3,280	3,917	4,925
Los Angeles Convention Center	91	29,000	36,000	819
Total	819,323	988,916	1,076,373	1,225,274

¹ Does not include several thousand tons of inert recycling and minor tonnage from several departments.

Source: City of Los Angeles Solid Resources Citywide Recycling Division, AB 939 1996 and 1997 Annual Updates Executive Summary, October 30, 1998; City of Los Angeles Solid Resources Recycling Division, City of Los Angeles Year 2000 AB 939 Report, August 2001.

3.3 Waste Generation, Reduction, and Recycling at LAX

3.3.1 Recycling at LAX

LAWA is not directly responsible for compliance with AB 939. However, LAWA has participated in the city's waste diversion program by implementing an aggressive source reduction and recycling program at LAX. LAWA tenants were required to decrease their solid waste disposal rates by 50 percent by year 2000, in accordance with AB 939 goals. Tenants may implement their own diversion programs or they may participate in LAWA's programs. However, there are no penalties for not meeting the diversion goals. As further discussed in Technical Report 10, *Solid Waste Technical Report*, of the Draft EIS/EIR, there are several waste recovery efforts ongoing at LAX that assisted the city in meeting the AB 939 mandates and to reduce disposal costs. As of the 1999 reporting year, LAX achieved a diversion rate of 54 percent. By 2000, the diversion rate had increased to 67 percent.⁵

3.3.2 Baseline Solid Waste Generation

The following discussion updates information pertaining to baseline solid waste generation at LAX. As indicated in Technical Report 10, *Solid Waste Technical Report*, of the Draft EIS/EIR, in 1994, the annual volume of waste at LAX requiring disposal was 35,000 tons. Approximately 7,800 tons of solid waste were diverted from the waste stream. In addition, approximately 1,000 tons of waste were avoided

⁵ LAWA, LAX - Summary of Recycling Statistics for 1999 Calendar Year, 2000.

through source reduction. Total diversion was about 20 percent. An updated waste audit quantified an annual volume of waste requiring disposal of about 32,237 tons for LAX in 2000. Approximately 28,000 tons of solid waste were diverted from the disposal waste stream and approximately 37,474 tons of waste were avoided through source reduction, for a total diversion of about 67 percent.⁶ **Table S4**, Summary of Waste Disposal, Source Reduction, Recycling, and Diversion at LAX (1990-2000), presents an updated summary of waste disposal, diversion, and generation at LAX through the Year 2000.

Technical Report 10, *Solid Waste Technical Report*, of the Draft EIS/EIR provided information pertaining to baseline solid waste conditions, including calculations of solid waste generation associated with the 1996 baseline year. Changes at LAX have occurred since 1996 that affect these calculated values. These changes include continued increases in solid waste diversion, resulting in lower solid waste generation rates at LAX; increases in cargo volumes and passengers; the construction of an additional 466,000 square feet of cargo uses, an additional 15,000 square feet of terminal facilities, and a 9,000 square-foot child care facility within LAX Northside; and the purchase of residential uses within Belford and Manchester Square as part of a voluntary acquisition associated with the Aircraft Noise Mitigation Program (ANMP). As of 2000, 147 single-family and 142 multi-family dwelling units within Manchester Square, and 245 multi-family dwelling units within Belford had been purchased. Solid waste generation within the Master Plan boundaries for 1996 and 2000 is provided in **Table S5**, 1996 Baseline Solid Waste Generation, and **Table S6**, Year 2000 Solid Waste Generation, respectively.

Table S4

Summary of Waste Disposal, Source Reduction, Recycling, and Diversion at LAX (1990 - 2000)

Year	1990	1991	1992	1993	1994	1995	2000
Disposal (tons)	47,413	46,162 ¹	48,272 ²	37,898 ⁵	34,999	39,141	32,237
Source Reduction	0 ³	0 ³	50	500	1,000	1,518	37,474
Recycling	2,951	4,711	8,795	7,547	7,807	8,278	28,567
Total	50,364	50,873	57,117	45,945⁴	43,806	48,937	98,278
Diversion	5.9%	9.3%	15.4%	17.5%	20.1%	20.0%	67.2%

- ¹ Waste disposal is adjusted for anomalies in passenger traffic caused by the Persian Gulf War.
- ² Reflects an increase of approximately 2,000,000 passengers from 1991 to 1992.
- ³ Source reduction did occur at LAX in 1990 and 1991; however, it could not be measured.
- ⁴ Includes adjusted conversion factors.
- ⁵ Solid waste generation at LAX decreased between 1992 and 1993 due to heightened security following the Persian Gulf War. Fewer passengers traveled and no visitors were allowed past security.

Source: City of Los Angeles, Integrated Solid Waste Management Office, 1995 Annual Report on Disposal and Diversion in the City of Los Angeles, 1995; Los Angeles World Airports (LAWA), Los Angeles International Airport Waste Disposal, Recycling and Generation, 2002.

⁶ Los Angeles World Airports, LAX Waste Characterization Study Final Report, January 2002.

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Table S5

1996 Baseline Solid Waste Generation

Land Use	Solid Waste Factor (per year)	Units	Total Generation (tpy)
LAX			
Airport Land Uses			
Cargo	4.5lbs/tons	1,896,764tons	4,268
Passengers	620tons/MAP	58.0MAP	35,960
Subtotal Airport Uses			40,228
Non-Airport Uses			
Belford			
Residential (Multi Family)	0.918tons/(DU)	583DU	535
Subtotal Belford			535
SUBTOTAL AIRPORT AND NON-AIRPORT USES			40,763
Non-Project Uses Within Master Plan Boundaries			
Manchester Square			
Residential (Single Family)	1.360tons/DU	280DU	381
Residential (Multi Family)	0.918tons/DU	1,706DU	1,566
Subtotal Manchester Square			1,947
Land Within Acquisition Areas			
Residential (Single Family)	1.360tons/DU	57DU	78
Residential (Multi Family)	0.918tons/DU	69DU	63
Hotel ¹	1.650tons/employee	1,916employee	3,162
Office	0.001tons/S.F.	1,108,312S.F.	1,108
Retail ²	1.551 tons/employee	280employee	434
Light Industrial ³	0.865tons/employee	5,830employee	5,043
Institutional	0.001tons/S.F.	156,178S.F.	156
Subtotal Acquisition Areas			10,044
SUBTOTAL NON-PROJECT USES			11,991
TOTAL MASTER PLAN BOUNDARIES			52,754

Notes: Information in the table may not always total, due to rounding.
There is no baseline solid waste generation associated with Continental City or LAX Northside.

DU = dwelling unit
lbs = pounds
MAP = million annual passengers
S.F. = square feet

¹ Hotel use, assumes 650 S.F./room; 23 employees/25 room

² Retail use, assumes 530 S.F./employee

³ Light industrial, assumes 650 S.F./employee

Source: Camp Dresser & McKee Inc., 2000.

Table S6
Year 2000 Solid Waste Generation

Land Use	Solid Waste Factor (per year)	Units	Total Generation (tpy)
LAX			
Airport Land Uses			
Cargo	2.8 lbs/tons	2,247,833 tons	3,147
Passengers	431 tons/MAP	67.30 MAP	29,006
Subtotal Airport Uses			32,153
Non-Airport Uses			
Belford¹			
Residential (Multi Family)	0.827 tons/DU	340 DU	281
Subtotal Belford			281
LAX Northside			
Airport-Related	0.0009 Tons/S.F.	9,000 S.F.	8
Subtotal LAX Northside			8
SUBTOTAL AIRPORT AND NON-AIRPORT USES			32,442
Non-Project Uses Within Master Plan Boundaries			
Manchester Square²			
Residential (Single Family)	1.230 tons/DU	132 DU	162
Residential (Multi Family)	0.827 tons/DU	1,579 DU	1,306
Subtotal Manchester Square			1,468
Land Within Acquisition Areas			
Residential (Single Family)	1.230 tons/DU	57 DU	70
Residential (Multi Family)	0.827 tons/DU	69 DU	57
Hotel ³	1.490 tons/employee	1,916 employee	2,855
Office	0.0009 tons/S.F.	1,108,312 S.F.	997
Retail ⁴	1.400 tons/employee	280 employee	392
Light Industrial ⁵	0.779 tons/employee	5,830 employee	4,541
Institutional ⁶	0.0009 tons/S.F.	156,178 S.F.	141
Subtotal Acquisition Areas			9,053
SUBTOTAL NON-PROJECT USES			10,521
TOTAL MASTER PLAN BOUNDARIES			42,963

Notes: Information in the table may not always total, due to rounding.
 There is no Year 2000 solid waste generation associated with Continental City.
 Year 2000 solid waste generation associated with LAX Northside was limited to a childcare facility constructed subsequent to 1996.
 Factors were adjusted to reflect 50 percent diversion.

DU = dwelling unit
 lbs = pounds
 MAP = million annual passengers
 S.F. = square feet

¹ Subsequent to publication of the Draft EIS/EIR, the number of multi-family dwelling units in Belford was determined to be 585. As of December 2000, 245 units had been acquired.
² Subsequent to publication of the Draft EIS/EIR, the number of dwelling units within Manchester Square was determined to be 279 single-family units and 1,721 multi-family units. As of December 2000, 147 single-family units and 142 multi-family units had been acquired.
³ Hotel use, assumes 650 S.F./room; 23 employees/25 room
⁴ Retail use, assumes 530 S.F./employee
⁵ Light industrial, assumes 650 S.F./employee
⁶ Includes college, high school, elementary school, and library land use.

Source: Camp Dresser & McKee Inc., 2003.

4. ENVIRONMENTAL CONSEQUENCES

To determine the projected solid waste generation under each of the alternatives, the appropriate solid waste generation factor for each airport and non-airport land use was multiplied by the appropriate activity or land use information included in the alternatives. **Table S7**, Activity and Land Uses Included in the Alternatives, presents a comparison of the cargo- and passenger-related activity land use types included in the alternatives. **Table S8**, Projected Solid Waste Generation Within the Master Plan Boundaries Under Alternative D, presents projected solid waste generation under Alternative D. **Tables S9**, Demolition Solid Waste Generation Under Alternative D, and **S10**, Construction Solid Waste Generation Under Alternative D, present estimated solid waste generation from demolition and construction activities associated with Alternative D.

Table S7

Activity and Land Uses Included in the Alternatives

Land Use	1996	Year	Alternatives 2015				
	Baseline	2000	NA/NP	A	B	C	D
LAX							
Airport Land Uses							
Cargo (tons)	1,896,764	2,247,833	3,120,000	4,172,000	4,172,000	4,172,000	3,120,000
Passengers (MAP)	58.0	67.3	78.7 ⁵	97.9	97.9	89.6	78.9
Non-Airport Land Uses							
Belford							
Residential (Multi Family DUs)	583	340					
LAX Northside Development¹							
Office (S.F.)			1,580,000				1,580,000
Hotel (Employees)			1,288				1,288
Retail (Employees)			113				113
Airport Related (S.F.)		9,000	750,000				750,000
R/D Business Park (S.F.)			1,170,000				1,170,000
Restaurant (S.F.)			70,000				70,000
Continental City							
Office (S.F.)			3,000,000				
Retail (Employees)			189				
Westchester Southside							
Hotel (Employees)				1,203	1,203	1,203	
Office (S.F.)				650,000	650,000	650,000	
Retail (Employees)				208	208	208	
R/D Business Park				970,000	970,000	970,000	
Restaurant (S.F.)				40,000	40,000	40,000	
Non-Project Uses Within Master Plan Boundaries							
Manchester Square²							
Residential (Single Family DUs)	280	132					
Residential (Multi Family DUs)	1,706	1,579					
Office (S.F.)				50,000			
Hotel (Employees)				708			
Industrial (Employees)				2,646			
Land Within Acquisition Areas³							
Residential (Single Family DUs)	57	57	57				57
Residential (Multi Family DUs)	69	69	69	42	42	42 ⁵	69
Hotel (Employees)	1,916	1,916	1,916	142		1,246	1,775
Office (S.F.)	1,108,312	1,108,312	1,108,312	142,064		137,010 ⁵	901,001
Retail (Employees)	280	280	280	86	114	138	214
Light Industrial (Employees)	5,830	5,830	5,830 ⁵	1,841	128	3,397 ⁵	5,450
Institutional ⁴ (S.F.)	156,178	156,178	156,178	85,902	85,902		102,912

¹ LAX Northside is currently subject to a trip cap (refer to Chapter 4, *Affected Environment, Consequences and Mitigation Measures* (Analytical Framework Section), of this Supplement to the Draft EIS/EIR. Under Alternative D, this trip cap would be reduced, which would effectively reduce the total amount of development allowed in LAX Northside. As a result, solid waste generation associated with LAX Northside is overstated.

² Under the No Action/No Project Alternative, existing uses would be demolished. For purposes of this Supplement to the Draft EIS/EIR, no development is assumed. Under Alternative A, Manchester Square would be redeveloped with commercial/light industrial uses independent of the Master Plan. Under Alternatives B, C, and D, existing uses would be demolished, and the area would be incorporated into the overall Master Plan development.

³ Only a portion of the land within the acquisition areas would be acquired for each individual build alternative. No land within the acquisition areas would be acquired under the No Action/No Project Alternative. The land within the Master Plan boundaries that would not be acquired under a particular alternative is assumed to remain in its current use.

⁴ Includes college, high school, elementary school and library land use.

⁵ Modified since publication of the Draft EIS/EIR to correct an error. This modification does not alter the conclusions of the Draft EIS/EIR.

Source: Landrum & Brown, 2003.

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Table S8

Projected Solid Waste Generation Within the Master Plan Boundaries Under Alternative D

Land Use	Factor (per year)	Units ¹	Total Generation (tpy)
LAX			
Airport Land Uses			
Cargo	2.8 lbs/ton	3,120,000 tons	4,368
Passengers	387 tons/MAP	78.9 MAP	30,534
Subtotal Airport Land Uses			34,902
Non-Airport Land Uses			
LAX Northside			
Office	0.0009 tons/S.F.	1,580,000 S.F.	1,422
Hotel ¹	1.490 tons/employee	1,288 employees	1,919
Retail ²	1.400 tons/employee	113 employees	158
Airport Related ²	0.0009 tons/S.F.	750,000 S.F.	675
R/D Business Park	0.0009 tons/S.F.	1,170,000 S.F.	1,053
Restaurant ³	0.0023 tons/S.F.	70,000 S.F.	161
Subtotal			5,389
SUBTOTAL AIRPORT AND NON-AIRPORT LAND USES			40,291
Non-Project Uses Within Master Plan Boundaries			
Land Within Acquisition Areas			
Residential (Single Family)	1.230 tons/DU	57 DU	70
Residential (Multi Family)	0.827 tons/DU	69 DU	57
Hotel ¹	1.490 tons/employee	1,775 employee	2,645
Office	0.0009 tons/S.F.	901,001 S.F.	811
Retail ²	1.400 tons/employee	214 employee	300
Light Industrial ⁴	0.779 tons/employee	5,450 employee	4,246
Institutional	0.0009 tons/S.F.	102,912 S.F.	93
Subtotal Acquisition Areas			8,221
SUBTOTAL NON-PROJECT USES			8,221
TOTAL MASTER PLAN BOUNDARIES			48,512

Notes: Information in the table may not always total, due to rounding.
Factors were adjusted to reflect 50 percent diversion.

¹ Hotel uses, assumes 650 S.F./room; 23 employees/25 room

² Airport related and retail uses, assumes 530 S.F./employee

³ Restaurant uses, assumes 0.00000696 tons/S.F./day

⁴ Light industrial uses, assumes 650 S.F./employee

Source: Camp Dress McKee Inc., 2003.

Table S9

Demolition Solid Waste Generation Under Alternative D

Land Use	Factor	2015	
		S.F.	Waste Generation (tons)
LAX			
Ground Handling	72.0 lbs/S.F.	0	0
Maintenance Facilities	72.0 lbs/S.F.	551,000	19,836
Flight Kitchen	72.0 lbs/S.F.	132,406	4,767
Central Utility Plant	72.0 lbs/S.F.	0	0
Airport Police	72.0 lbs/S.F.	12,000	432
CNG/LNG	72.0 lbs/S.F.	22,000	792
General Aviation	72.0 lbs/S.F.	0	0
FAA	72.0 lbs/S.F.	0	0
ARFF (Aircraft Rescue and Fire Fighting Facility)	72.0 lbs/S.F.	9,000	324
Fuel Farm	72.0 lbs/S.F.	71,000	2,556
Ground Run Up Enclosure	72.0 lbs/S.F.	0	0
LAWA	72.0 lbs/S.F.	0	0
Coast Guard	72.0 lbs/S.F.	0	0
Cargo	72.0 lbs/S.F.	113,000	4,068
Terminal ¹	72.0 lbs/S.F.	1,268,000	45,648
Acquisition Areas			
Residential	70.0 lbs/S.F.	0	0
Hotel	72.0 lbs/S.F.	63,595	2,289
Office	72.0 lbs/S.F.	207,311	7,463
Retail	72.0 lbs/S.F.	39,520	1,423
Light Industrial	72.0 lbs/S.F.	240,615	8,662
Institutional	72.0 lbs/S.F.	53,288	1,918
DEMOLITION TOTAL			100,178

Note: Information in the table may not always total, due to rounding.
Demolition numbers are approximate.

¹ Includes TBIT and North Terminal Area.

Source: Camp Dresser McKee Inc., 2003.

Table S10

Construction Solid Waste Generation Under Alternative D

Land Use	Factor	S.F.	Waste Generation (tons)
LAX			
Airport Land Uses			
Ground Handling	8 lbs/S.F.	0	0
Maintenance Facilities - New	8 lbs/S.F.	300,000	1,200
Maintenance Facilities - Renovated	12 lbs/S.F.	0	0
Flight Kitchen	8 lbs/S.F.	0	0
Central Utility Plant	8 lbs/S.F.	0	0
Airport Police	8 lbs/S.F.	110,000	440
CNG/LNG	8 lbs/S.F.	22,000	88
General Aviation	8 lbs/S.F.	121,000	484
FAA	8 lbs/S.F.	0	0
ARFF (Aircraft Rescue and Fire Fighting Facility - New)	8 lbs/S.F.	18,000	72
ARFF - Renovated	12 lbs/S.F.	0	0
Fuel Farm	8 lbs/S.F.	0	0
Ground Run Up Enclosure	8 lbs/S.F.	180,000	720
LAWA	8 lbs/S.F.	0	0
Coast Guard	8 lbs/S.F.	0	0
Cargo - New	8 lbs/S.F.	379,000	1,516
Cargo - Renovated	12 lbs/S.F.	208,800	1,253
Terminal ¹	8 lbs/S.F.	4,400,000	17,600
Non-Airport Land Uses - Westchester Southside			
Hotel	8 lbs/S.F.	522,000	2,088
Office	8 lbs/S.F.	948,000	3,792
Retail	8 lbs/S.F.	36,000	144
Airport-Related	8 lbs/S.F.	450,000	1,800
R/D Business Park	8 lbs/S.F.	700,000	2,800
Restaurant	8 lbs/S.F.	42,000	168
CONSTRUCTION TOTAL			34,165

Note: Information in the table may not always total, due to rounding.
Construction numbers are approximate.

¹ Includes Terminals 1, 2, 3, and 4; New Midfield Satellite; Northern Linear Concourse; Southern Linear Concourse/TBIT connection; GTC Facility; and ITC Facility.

Source: Camp Dresser & McKee Inc., 2003.