
V. ENVIRONMENTAL IMPACT ANALYSIS
H. UTILITIES
4. SOLID WASTE AND DISPOSAL

ENVIRONMENTAL SETTING

Within the City of Los Angeles, solid waste management, including collection and disposal services and landfill operation, is administered by various public agencies and private companies. Single-family residential and limited multiple-family residential refuse is collected by the City of Los Angeles Bureau of Sanitation; waste generated by most multi-family residential sources and all commercial and industrial sources is collected by private contractors. Waste disposal sites are operated by both the City and County of Los Angeles, as well as by private companies. In addition, transfer stations are utilized to store debris temporarily until larger hauling trucks are available to transport the materials directly to the landfills. Landfill availability is limited by several factors, some of which include the following: 1) restrictions to accepting waste generated only within a landfill's particular jurisdiction and/or watershed boundary; 2) tonnage permit limitations; 3) operational constraints; and 4) corporate objectives of landfill owners and operators.

The California Integrated Waste Management Act of 1989 (AB 939) was enacted to reduce, recycle, and reuse solid waste generated in the State to the maximum amount feasible. Specifically, the Act required city and county jurisdictions to identify an implementation schedule to divert 50 percent of the total waste stream from landfill disposal by the year 2000 and 70 percent by the year 2020.¹ The Act also requires each city and county to promote source reduction, recycling, and safe disposal or transformation.

AB 939 further requires each city to conduct a Solid Waste Generation Study and to prepare a Source Reduction and Recycling Element (SRRE) to describe how it would reach the goals. The SRRE contains programs and policies for fulfillment of the goals of the Act, including the above-noted diversion goals and must be updated annually to account for changing market and infrastructure conditions. As projects and programs are implemented, the characteristics of the waste stream, the capacities of the current solid waste disposal facilities, and the operational status of those facilities are upgraded, as appropriate. California cities and counties are required to submit annual reports to the California Integrated Waste Management Board to update the Board on the city's progress toward the AB 939 goals. To date, implementation of AB 939 has proven to be a successful method of reducing landfill waste.

¹ *Correspondence from Los Angeles Office of the Board of Public Works, Karen Coca, January 30, 2002.*

Given the multitude of haulers solid waste is likely disposed of at a variety of landfills, potentially including the Bradley Landfill or Sunshine Canyon Landfill. The Bradley Landfill is currently permitted to intake 10,000 tons per day of solid waste and receives approximately 2,250 tons per day. This indicates that the Bradley Landfill is currently permitted to receive an additional 7,750 tons per day of solid waste. In addition, the City is exploring plans to construct or purchase other solid waste facilities, including a materials recovery facility and a transfer station, the details of which are currently unavailable.² The Sunshine Canyon Landfill Facility, located in Sylmar, has approximately 9.72 million tons of capacity remaining with an average daily intake of 6,515 tons per day.³

Facility expansions and new landfills are continuously being sought as existing facility capacity diminishes. Mandatory City waste reduction and recycling programs (in compliance with the September 1989 California Integrated Solid Waste Management Act, SB AB 939) are greatly reducing the amount of waste that would otherwise have entered area landfills. In addition, Orange County accepts solid waste from Los Angeles County.

The Project Site is currently developed with the Los Angeles Memorial Coliseum, a multi-purpose outdoor stadium with a maximum seating capacity of 92,500 persons. In addition, several ancillary structures are located on-site adjacent to and surrounding the Coliseum. These structures include ticket booths, restroom facilities, and concession-related buildings. The site is situated within Exposition Park, which is developed with several other publicly-oriented facilities, including the Los Angeles Memorial Sports Arena, the California Science Center, and the Los Angeles County Museum of Natural History, among others.

Throughout the City of Los Angeles, solid waste generated by commercial land uses is gathered by private collectors contracted directly by the individual property owners. A private solid waste collector is currently retained by the Coliseum Commission to collect solid waste from the site on an "on-call" basis for all spectator events. In addition to the solid waste generated by Coliseum events, a small amount of solid waste is generated on a year-round basis by the operation of the Coliseum Commission administrative offices. This solid waste is taken to dumpsters located adjacent to the Los Angeles Memorial Sports Arena, which adjoins the site on the southeast, from which it is picked up by a private collector on a regular basis.

The Coliseum has hosted an average of 34 events per year over the past three calendar years (1999 through 2002) with a total estimated annual attendance of 837,071 persons.⁴ Full spectator capacity at

² *California Integrated Waste Management Board, Board Meeting May 13-14, 2003, "Agenda Item 7 (Revised)."*

³ *County of Los Angeles, Department of Public Works, November 7, 2002.*

⁴ *These 34 average annual events do not include non-ticketed events, like those used in the utility rate tables, Los Angeles Coliseum Commission, July 2003.*

the Coliseum (92,500 persons) was not reached on any occasion during the aforementioned three-year study period, and has only been reached on infrequent occasions throughout the history of the stadium. For a more detailed discussion of the parameters of time period and attendance data utilized in this study, see Section IV.B of this report, Analytical Assumptions. As shown in Table V.H.4-1, the Coliseum currently generates approximately 837,071 pounds of solid waste on annual basis, or approximately 419 tons per year.

**Table V.H.4-1
Existing Solid Waste Generation**

Existing Development/Event Types	Average Annual Attendance^a	Generation Rate^b (pounds/person/event)	Total Generation (lbs/day)
Coliseum (92,500 Seats)	--	--	
Misc. Sports (H.S. Football)	17,622	1	17,622
Motorsports	31,886	1	31,886
Religious Events	45,000	1	45,000
Misc. Cultural Events	44,751	1	44,751
Concerts	67,517	1	67,517
Soccer	196,820	1	196,820
USC Football	341,425	1	341,425
XFL Football	92,050	1	92,050
Total Existing Solid Waste Generation per Year			837,071
^a Based on an average of 34 events per year. The estimate of the total annual attendance for existing Coliseum events was based on the cumulative total of the average recorded attendance levels (averaged over the past 4 years) for each event type multiplied by the number of events held each year for each type of event.			
^b Based on the City of Los Angeles Bureau of Sanitation's "cafeteria" generation rate of one pound of solid waste generated per person per event, determined to be the most accurate and conservative available rate.			
Source: Christopher A. Joseph & Associates, 2003.			

ENVIRONMENTAL IMPACTS

Thresholds of Significance

Implementation of a project would result in a significant impact on solid waste if the existing landfill facilities could not adequately handle the project's waste; if the disposal of project-related solid waste would result in a premature exhaustion of a landfill's capacity; or if the project conflicts with local, state, and federal laws and regulations pertaining to solid waste management.

Project Impacts

The Proposed Project would result in the removal of much of the existing building material on-site, including all of the concession and restroom buildings outlying the Coliseum on the site, as well as some of the interior of the existing stadium. Additional grading and excavation of earth materials

would add to the total amount of material estimated to be removed from the site during the construction period, an estimated total of approximately 250,000 cubic yards. It has not yet been determined whether or not landfills would be utilized as receptor sites for all or part of this material. Preliminary plans call for the disposal of materials generated during the excavation and construction period at another development site needing imported fill material, with the use of landfills being considered only as a last resort. If landfills are utilized, an undeterminable amount of landfill capacity would be required to accommodate non-hazardous debris removed from the site during the construction phase.

Assuming the existing average annual attendance levels for all current event types at the Coliseum remain relatively constant, and up to 12 additional NFL events are held per year (assuming maximum capacity for all 12 events), the Proposed Project would be anticipated to generate approximately 1,860,671 pounds or approximately 930 tons of solid waste per year (See Table V.H.4-2). Existing uses on the site generate approximately 837,071 pounds (or approximately 419 tons) of solid waste per year. Therefore, implementation of the Proposed Project would generate a net increase of approximately 1,023,600 pounds (or approximately 512 tons) per event. Development of the Proposed Project could potentially result in an approximate 23 % increase in the volume of solid waste generated by the Coliseum. Since the Proposed Project represents a relatively low increase in annual solid waste generation at the Project Site as compared to existing conditions, and regional landfill capacity is currently adequate to accommodate the regional solid waste demands for the City of Los Angeles, impacts associated with the Proposed Project would be considered less than significant.

Table V.H.4-2
Proposed Project Solid Waste Generation

Development	Average Annual Attendance	Generation Rate	Total Generation (lbs/yr)
Existing Uses (Ave. 34 events)	837,071	1 lb./person/event)	837,071
NFL Football (12 events @ 78,000 seats max.)	--	--	--
General and Club Seats (74,000)	888,000	1 lb./person/event) ^a	888,000
Luxury Suite Seats (4,000) ^b	48,000	1 lb./person/event)	48,000
Ancillary Office/Retail (40,000 sf) ^c	--	6 (lbs./1,000 sf/day)	87,600
Proposed Project Solid Waste Generation			1,860,671
Less Existing Solid Waste Generation			(837,071)
Net Increase in Solid Waste Generation per Year			1,023,600
^a Based on the City of Los Angeles Bureau of Sanitation's "cafeteria" generation rate of one pound of solid waste generated per person per event, determined to be the most accurate and conservative available rate. ^b Based on approximately 20 seats per suite, with approximately 200 suite. ^c Assumes this is a new use operating 365 days per year. Source: Christopher A. Joseph & Associates, 2003.			

CUMULATIVE IMPACTS

Development and implementation of the related projects within the study area would result in the generation of approximately 76,171 pounds (or approximately 38 tons) of solid waste per day. This equates to approximately 27.8 million pounds (or approximately 13,901) tons annually (See Table V.H.4-3). Implementation of the Proposed Project with the related projects would generate an average of approximately 28.8 million pounds (or approximately 14,413 tons) of solid waste per year. This results in an average solid waste generation of approximately 39.4 tons per day.

The Proposed Project would not contribute to a cumulative adverse impact to solid waste as there is currently adequate capacity at the regional landfills to accommodate the proposed project and the cumulative related projects identified herein. As discussed above, the Sunshine Canyon Landfill is permitted to receive up to 5,500 tons of solid waste each day from the City. The Sunshine Canyon Landfill currently receives approximately 3,500 tons of solid waste daily from the City and has a remaining daily capacity of 2,000 tons. Assuming that all of the cumulative solid waste is sent to the Sunshine Canyon Landfill with no waste stream diversion, the additional 39.4 tons of cumulative solid waste per day would not cause the Sunshine Canyon Landfill to exceed its permitted daily capacity from the City. As previously discussed, additional capacity to accommodate the cumulative disposal needs of the Proposed Project and related projects may become available as the City develops solutions to meet the future disposal needs at a regional level (e.g., expanding existing landfills, transporting waste to other landfills, converting waste to energy, recycling and waste reduction). Furthermore, similar to the Proposed Project, the related projects would be subject to the requirements of AB 939 (i.e., divert 50 percent of the solid waste generated from landfills through waste reduction, recycling and composting). Consequently, the cumulative solid waste impact is considered to be less than significant.

MITIGATION MEASURES

The Proposed Project is not anticipated to result in any significant adverse impacts relating to the disposal of solid waste, therefore, no mitigation measures are required for incorporation into the Proposed Project.

**Table V.H.4-3
Estimated Solid Waste Generation by Related Projects**

Land Use	Size	Generation Rate^a (lbs/day)	Total (lbs/day)
Apartment	179 du	4/du	716
Community Facility/Clinic	78,840 sf	7/1,000 sf	552
Elementary/Junior High School	1,211,403 sf	7/1,000 sf	8,480
High School	1,815,581 sf	7/1,000 sf	12,709
Light Industrial	700,000 sf	5/1,000 sf	3,500
Market/Grocery	8,720 sf	5/1,000 sf	44
Multi-Use Development	6,914,165 sf	5/1,000 sf	34,571
Museum	1,128,000 sf	5/1,000 sf	5,640
Office	447,500 sf	6/1,000 sf	2,685
Parking Facility	2,400 spaces	--	
Restaurant	17,443 sf	50/1,000sf	872
Retail	107,370 sf	5/1,000 sf	537
Storage	7,910 sf	5/1,000 sf	40
Theater ^b	1,670 seats	1/seat	1,670
University ^c	440,000 sf	7/1,000 sf	3,080
Wholesale Trade Space	215,000 sf	5/1,000 sf	1,075
Subtotal (Daily)			76,171
Cumulative Total (Annual)			27,802,415
<p><i>a</i> Based on land use type, provided by the City of Los Angeles Bureau of Sanitation, "Solid Waste Generation," 1981.</p> <p><i>b</i> Used Pacific Theaters Seat Rate (1 seat= 20 sf).</p> <p><i>c</i> Based on rates for Library/Public Area land use, provided by the City of Los Angeles Public Works Bureau of Engineering, March 2002.</p> <p><u>Notes:</u> <i>du</i> = dwelling unit <i>sf</i> = square feet Source: Christopher A. Joseph & Associates, 2002.</p>			