

1.0 INTRODUCTION

This section describes the generation and management of solid waste on the Loyola Marymount University campus and evaluates the changes resulting from implementation of the Proposed Project. This section describes the City and County solid waste collection services and disposal facilities that serve LMU, as well as the regulatory measures intended to minimize the volume of solid waste requiring landfill disposal, such as relevant state legislation and City/County recycling programs. This section also estimates the amount of solid waste generated daily by the Proposed Project at buildout, and evaluates the impacts of solid waste generation by the Proposed Project on existing solid waste collection and disposal capabilities that serve the City.

2.0 REGULATORY FRAMEWORK

2.1 State Regulations

2.1.1 California Integrated Waste Management Act

In response to reduced landfill capacity, the State of California passed the California Integrated Waste Management Act in 1989. This legislation (generally known by the name of its enacting bill, AB 939) requires cities and counties to reduce the amount of solid waste entering existing landfills through recycling, re-use and waste prevention efforts.

When first enacted, AB 939 required every city and county in the state to prepare a Source Reduction and Recycling Element to its Solid Waste Management Plan to identify how each jurisdiction planned to meet mandatory state waste diversion goals of 25 percent by the year 1995 and 50 percent by the year 2000. Currently, AB 939 requires jurisdictions to maintain 50 percent waste diversion. AB 939 also established the California Integrated Waste Management Board, the state agency designated to oversee, manage, and track California's solid waste generation each year. Currently, neither the California Integrated Waste Management Board nor the state legislature has introduced new legislation to set diversion requirements above 50 percent.

The purpose of AB 939 is to “reduce, recycle, and re-use solid waste generated in the state to the maximum extent feasible.” AB 939 requires jurisdictions to utilize “integrated waste management”—a variety of waste management practices to safely and effectively handle the municipal solid waste stream with the least adverse impact on human health and the environment. The act establishes the following waste management hierarchy:

- **Source Reduction** – "Source reduction" means any action that causes a net reduction in the generation of solid waste. "Source reduction" includes, but is not limited to, reducing the use of non-recyclable materials, replacing disposable materials and products with reusable materials and products, reducing packaging, reducing the amount of yard wastes generated, establishing garbage rate structures with incentives to reduce the amount of wastes that generators produce, and increasing the efficiency of the use of paper, cardboard, glass, metal, plastic, and other materials. "Source reduction" does not include steps taken after the material becomes solid waste.¹
- **Recycling** – "Recycling" means the process of collecting, sorting, cleansing, treating, and reconstituting materials that would otherwise become solid waste, and returning them to the economic mainstream in the form of raw material for new, reused, or reconstituted products that meet the quality standards necessary to be used in the marketplace. "Recycling" does not include transformation.²
- **Composting** – "Compost" means the product resulting from the controlled biological decomposition of organic wastes that are source separated from the municipal solid waste stream, or which are separated at a centralized facility. "Compost" includes vegetable, yard, and wood wastes that are not hazardous waste.³
- **Transformation** – "Transformation" means incineration, pyrolysis,⁴ distillation,⁵ gasification,⁶ or biological conversion other than composting. "Transformation" does not include composting, gasification, or biomass conversion.⁷
- **Disposal** – "Solid waste disposal" or "disposal" means the final deposition of solid wastes onto land, into the atmosphere, or into the waters of the state.⁸

The California Solid Waste Reuse and Recycling Access Act of 1991 (Section 42900–42911 of the Public Resources Code) directs the California Integrated Management Board to draft a "model ordinance" for the provision of adequate areas for collecting and loading recyclable materials in development projects. If, by September 1, 1994, a local agency did not adopt its own ordinance based on the California Integrated Waste Management Board model, the California Integrated Waste Management Board model ordinance automatically took effect for that local agency.

¹ California Public Resources Code, Sec. 40196.

² California Public Resources Code, Sec. 40196.

³ California Public Resources Code, Sec. 40116.

⁴ Pyrolysis is a chemical decomposition induced in organic materials by heat in the absence of oxygen.

⁵ Destructive distillation is a process in which organic substances such as wood, coal, and oil shale are decomposed by heat in the absence of air and distilled to produce useful products such as coke, charcoal, oils, and gases.

⁶ Gasification is noncombustion thermal processing of waste using heat, steam, and pressure to convert materials directly into gas for electricity generation.

⁷ California Public Resources Code, Sec. 40201.

⁸ California Public Resources Code, Sec. 40192.

2.1.2 AB 2020

This California program, enacted through Assembly Bill 2020 (AB 2020) in September of 1986, established a redemption value on beverage containers and established “convenience zone” recycling centers within 0.5 mile of a supermarket. AB 2020 has five elements:

- It sets a redemption value on most beverages, 16 ounces or fewer, in aluminum, glass, plastic, and bi-metal containers. (The redemption value is 5 cents for containers less than 24 ounces, 10 cents for containers 24 ounces and larger.)
- It sets processing fees, which are paid to recyclers to cover their cost of recycling.
- It establishes a network of convenience zone recycling centers.
- It directs unredeemed funds toward supporting the Community Conservation Corps and toward grants and payments to private and public organizations for recycling-related projects. These funds also help container manufacturers reduce costs and save jobs, and have helped communities finance curbside recycling programs.
- In order to pay Consumer Redemption Value to consumers, recyclers must be certified by the Department of Conservation's Division of Recycling, and must accept all beverage containers covered in the program.

2.1.3 AB 1327 (Model Ordinance for Recycling in Development Projects)

AB 1327 requires the California Integrated Waste Management Board to approve a model ordinance for adoption by any local government for the transfer, receipt, storage, and loading of recyclable materials in development projects by March 1, 1993.

2.1.4 Senate Bill (SB) 1374

Signed in 2002, Senate Bill (SB) 1374 seeks to assist jurisdictions with diverting their construction and demolition waste material with a primary focus on the California Integrated Waste Management Board developing and adopting a model construction and demolition diversion ordinance by March 1, 2004, for voluntary use by California jurisdictions. The California Integrated Waste Management adopted a model ordinance on March 16, 2004. SB 1374 requires an annual report from jurisdictions summarizing progress made in diversion of construction and demolition waste, which jurisdictions have been doing since 1996. SB 1374 also gives the California Integrated Waste Management Board authority to fine a jurisdiction that is not complying with current regulations.

2.2 County Regulations

2.2.1 County of Los Angeles Solid Waste Management Action Plan

In the mid-1980s, Los Angeles County experienced extreme population growth, a correlated increase in waste generation, and rapidly decreasing landfill capacity. On October 28, 1986, the County Board of Supervisors initiated a solid waste management study and implementation program. This and subsequent Board actions resulted in the development of various planning strategies addressing the solid waste management options, economic considerations, and the identification of the best sites for future landfill capacity, which were incorporated in the following planning documents: the Los Angeles County Solid Waste Siting Project (March 1987); the Report on the Solid Waste Management Status and Disposal Options in Los Angeles County (February 1988); and the Preliminary Alternate Site Study (January 1988). The Los Angeles County Solid Waste Management Action Plan is a plan to provide long-range management of the solid waste generated within the County. This plan includes such approaches as source reduction, recycling and composting programs, household hazardous waste management programs and public education awareness programs. The plan concludes that land filling would remain an integral part of the waste management system and calls for the establishment of 50 years of in-County permitted landfill capacity, as well as the County's support for the development of disposal facilities out of the County.⁹ As required by AB 223, in 1988, the State Legislature approved the Los Angeles County Solid Waste Management Action Plan, prepared by the County of Los Angeles Board of Supervisors and County Sanitation District.¹⁰

2.2.2 County of Los Angeles Non-Disposal Facility Element

AB 939 requires every city and county within the state to prepare and adopt a Non-Disposal Facility Element to identify all existing, proposed expansions of, and proposed new non-disposal facilities. These include source reduction and recycling facilities that are needed to implement the local jurisdiction's Source Reduction and Recycling Element.¹¹ Los Angeles County's Non-Disposal Facility Element identifies 20 existing materials recovery facilities/transfer stations, and nine proposed material recovery facilities as non-disposal facilities. In addition, the County's Non-Disposal Facility Element also identifies the utilization of four landfill facilities, operated by the County Sanitation Districts of Los Angeles

⁹ County of Los Angeles Department of Public Works, "Countywide Siting Element," http://dpwprod2.co.la.ca.us/swims/Upload/LACCSitingElement_VolumeI_TheElement_061997.pdf. 2008.

¹⁰ CIWMB, "History of California Solid Waste Law, 1985-1989," <http://www.ciwmb.ca.gov/Statutes/Legislation/CalHist/1985to1989.htm>. 2008.

¹¹ CIWMB, "Regulations: Title 14, Natural Resources Division 7, CIWMB Chapter 9. Planning Guidelines and Procedures for Preparing and Revising Countywide and Regional Agency Integrated Waste Management Plans," <http://www.ciwmb.ca.gov/Regulations/Title14/ch9a92.htm>. 2008.

County, for diversion of yard/green waste, which is intended to be used as alternative daily cover at the landfills.

2.3 Local Regulations

2.3.1 City of Los Angeles Solid Waste Management Policy Plan

The 1993 City of Los Angeles Solid Waste Management Policy Plan is the long-range solid waste management policy plan for the City, while the Source Reduction and Recycling Element, updated annually, is the strategic action policy plan for diverting solid waste from landfills. The Solid Waste Management Policy Plan consists of implementing a residential curbside program and a commercial technical assistance program, and provides that the remaining waste be disposed in local and possibly remote landfills.

The Solid Waste Management Policy Plan has established the objective of reducing at the source or recycling a minimum of 50 percent of the City's waste by the year 2000 or as soon as possible thereafter. Additionally, the Solid Waste Management Policy Plan has established a Citywide waste diversion objective 70 percent by 2020. The Solid Waste Management Policy Plan is incorporated into solid waste management planning and ensures that disposal practices do not conflict with diversion goals.

The following five goals of the Solid Waste Management Policy Plan reflect the importance of source and materials recovery and, thus, the intent of the City to follow state regulations.

- **Maximum Waste Diversion:** The goal is to create an integrated solid waste management system that maximizes source reduction and materials recovery and minimizes waste requiring disposal.
- **Adequate Recycling Facility Development:** To expand the siting of facilities that enhance waste reduction, recycling and composting throughout the City and beyond the current limits of the zoning code in ways that are economically, socially, and politically acceptable.
- **Adequate Collection, Transfer, and Disposal of Mixed Solid Waste:** The City shall ensure that all mixed solid waste that cannot be reduced, recycled, or composted be collected, transferred, and disposed of in a manner that minimizes environmental impacts.
- **To develop an environmentally sound solid waste management system that protects public health and safety, protects natural resources and utilizes the best available technology to accommodate the needs of the City.**
- **The City shall operate a cost-effective integrated waste management system that emphasizes source reduction, recycling, reuse and market development and is adequately financed to meet operational and maintenance needs.**

The City's Source Reduction and Recycling Element serves as a guidance document and strategic action plan for diverting solid waste from landfills. The source reduction, recycling, composting, special waste, and public education goals are defined by specific programmatic elements including tasks, roles, responsibilities, and an implementation schedule. The Source Reduction and Recycling Element provides a 10-year programmatic plan for solid waste diversion objectives between 1990 and 2000, in accordance with the requirement of AB 939. It has been updated annually and is based on an ongoing evaluation of programs and waste analysis. The plan establishes diversion objectives for specific programs and targeted generators that, in combination, could enable the City to exceed the 1995 and 2000 diversion objectives of the City of Los Angeles Solid Waste Management Policy Plan. It also presents an analysis of the projected 15-year disposal capacity requirements for the City of Los Angeles based on achieving the 1995 and 2000 diversion objectives of the Source Reduction and Recycling Element and, with continual increased diversion, the City of Los Angeles Solid Waste Management Policy Plan long-term diversion objectives. Guidance for, and implementation of, the solid waste diversion programs identified in the Source Reduction and Recycling Element are administered by the City of Los Angeles Department of Public Works, Bureau of Sanitation, Solid Resources Citywide Recycling Division.

Currently, the City is in the process of developing the Solid Waste Integrated Resources Plan, a 20-year master plan that would supersede the existing City of Los Angeles Solid Waste Management Policy Plan and achieve City's goal of becoming a zero waste city by 2030. The Solid Waste Integrated Resources Plan is expected to be completed in 2013.

2.3.2 RENEW LA

In February 2006, the Los Angeles City Council adopted the Recovering Energy Natural Resources and Economic Benefit from Waste for Los Angeles (RENEW LA) as a guide for solid waste and resource management for the City of Los Angeles over the next 20 years.¹² The plan builds on key elements of existing programs and infrastructure, and combines them with new conversion technology to achieve an overall diversion rate of 90 percent or more by 2025. The plan seeks to achieve higher levels of resource recovery in the form of recyclables, soil amendments, renewable fuels, chemicals, green energy, and a reduction in the quantity of residue material disposed of in landfills. The efforts rely on the enhancement and growth of existing diversion programs, and the development of conversion technology facilities to process refuse that is currently not reused or recycled.

RENEW LA predicts that by 2025 the City of Los Angeles will have seven conversion technology facilities, each with a capacity of up to 3,000 tons per day per facility for a combined capacity of 14,500

¹² City of Los Angeles, Department of City Planning, "Recommendation Report, Thursday August 23, 2007," <http://cityplanning.lacity.org/>. 2008.

tons per day. The City of Los Angeles Bureau of Sanitation is currently reviewing submissions of proposals from development partners for processing Municipal Solid Waste utilizing alternative technologies premised on resource recovery.¹³

2.3.3 General Plan Framework Element

The City of Los Angeles General Plan Framework Element is a plan for long-term growth that establishes a Citywide context to guide the update of the community plan and Citywide elements. The Bureau of Sanitation has projected the need for waste disposal capacity based on the Southern California Association of Government's (SCAG) regional population growth projections. The Framework Element discusses many programs the City has implemented to divert waste from disposal facilities. Source reduction programs, such as home composting, recycling programs such as Curbside Recycling Program and composting programs are all programs included in the Framework Element. The City of Los Angeles Bureau of Sanitation established, and presently operates, its Curbside Recycling Program, which was designed to promote source reduction to achieve the goals established by AB 939 and associated City programs (e.g., the Source Reduction and Recycling Element). The Curbside Recycling Program collects commingled recyclables and green waste for all single-family and a limited number of multi-family complexes in the City. The City of Los Angeles Bureau of Sanitation established, and presently operates, its Curbside Recycling Program, which was designed to promote source reduction to achieve the goals established by AB 939 and associated City programs (e.g., the Source Reduction and Recycling Element). The Curbside Recycling Program collects commingled recyclables and green waste for all single-family and a limited number of multi-family complexes in the City. The Framework Element states that for these programs to succeed, the City should site businesses at appropriate locations within its borders that handle, process, and/or manufacture recyclable commodities to allow a full circle recycling system to develop.

The Framework Element suggests that Recycling Market Development Zones and other Development Zone areas should be utilized to bring these beneficial businesses into Los Angeles and that development and support of recyclable materials markets is one of the City's challenges in the years ahead. For the solid waste remaining after diversion, the Framework Element states that the City will have a continuing need for solid waste transfer and disposal facilities. Due to the very limited capacity of landfills located in Los Angeles, the Framework Element states that more transfer facilities will be needed to transfer waste from the collection vehicles and transport it to other, more remote landfill facilities. It also recognizes that capacity must be provided for the waste collected by both City agencies and private collection companies.

¹³ City of Los Angeles, *Recommendation Report, Thursday August 23, 2007*.

The Framework Element identifies several landfill disposal facilities that may be accessed by truck and others that would require the City to ship its solid waste by train.¹⁴

2.3.4 Los Angeles Source Reduction of Landscape Waste

The Los Angeles Municipal Code, Section 12.43, lists the following provisions for developments to reduce the amount of solid waste produced by landscaped areas:

- if any landscape includes grass, all grass clippings shall be recycled on or off site, and shall not be introduced into the off-site waste stream;
- if a lot is 7,500 square feet or greater, all vegetative waste, except that which is not appropriate to recycle, shall be recycled on or off site and shall not be introduced into the off-site waste stream; and
- in any landscape with lawn area greater than 15 percent of the planted area, all lawn area waste shall be recycled on or off site.

3.0 EXISTING CONDITIONS

The City of Los Angeles Bureau of Sanitation provides solid waste services to the City of Los Angeles (the City), including the LMU campus. The Bureau of Sanitation develops plans and strategies to manage solid waste (including hazardous waste) generated in the City and addresses the disposal needs of the City as a whole. The Bureau of Sanitation also provides solid waste collection services for single-family and small multi-family residences. Larger multi-family residences, such as apartment complexes and condominiums, and commercial, institutional, and industrial facilities contract with private companies to collect and transport materials for disposal and recycling.

There are three types of disposal facilities for non-hazardous waste within Los Angeles County: Class III Landfills (Municipal Solid Waste Landfills); Unclassified (Inert) Landfills; and Transformation (waste to energy) Facilities. A Class III Landfill accepts non-hazardous household waste. Unclassified Landfills accept materials such as soil, concrete, asphalt, and other construction and demolition debris. Transformation Facilities involve the incineration, pyrolysis, destructive distillation, gasification,¹⁵ or the chemical or biological processing of municipal solid waste in order to generate energy, reduce volume, or produce synthetic fuel. Prior to disposal, Materials Recovery Facilities recover recyclable materials from waste to provide for the efficient transfer of the residual waste to permitted landfills for proper disposal. Hazardous waste cannot be disposed of at Class III or Unclassified Landfills. The California Hazardous

¹⁴ City of Los Angeles General Plan, "Framework Element," Chapter 9, Infrastructure and Public Services, (1995).

¹⁵ See footnotes 4 through 6.

Waste Control Law requires that these hazardous materials be transported and disposed of or treated at a licensed facility.¹⁶ For more information on hazardous waste, refer to **Section IV.F, Hazards**.

The California Integrated Waste Management Board is responsible for ensuring that state waste management programs are primarily carried out through Local Enforcement Agencies. Local Enforcement Agencies, which include cities, are responsible for ensuring the proper operation and closure of solid waste facilities in the state. Local Enforcement Agencies are also responsible for guaranteeing the proper storage and transportation of solid wastes.

3.1 Solid Waste Generation

In 2006, approximately 92 million tons of solid waste was generated in the State of California; approximately 46 percent (42.2 million tons) of this waste was deposited into landfills and 54 percent (49.8 million tons) was diverted from landfills through various source reduction, recycling, and reuse efforts.¹⁷ In 2007, jurisdictions within Los Angeles County, including the City of Los Angeles, disposed of a total of 8.9 million tons of solid waste at the County's Class III Landfills. Additionally, these jurisdictions sent approximately 521,620 tons of solid waste to transformation facilities and exported 1.98 million tons to out-of-County landfills. Collectively, Los Angeles County jurisdictions disposed of a total of approximately 11.4 million tons of solid waste.¹⁸ Assuming an estimated Countywide waste diversion rate of 50 percent,¹⁹ County jurisdictions are estimated to have generated 22.8 million tons of solid waste (excluding inert waste) in 2007.²⁰ Residential waste accounted for 42 percent of this waste stream, while non-residential waste accounts for 58 percent.²¹ In addition, jurisdictions within Los Angeles County disposed of approximately 79,106 tons of inert waste to the County's Unclassified landfills in 2007.²²

¹⁶ California Code of Regulations, Health and Safety Code Sections 25100 – 25249.

¹⁷ California Integrated Waste Management Board, *2007 Annual Report*, <http://www.ciwmb.ca.gov>. 2008.

¹⁸ Los Angeles County Department of Public Works, *2007 Annual Report for the Countywide Summary Plan and Siting Element of the Los Angeles County Countywide Integrated Waste Management Plan*, (2009) 21.

¹⁹ Los Angeles County Department of Public Works, *2007 Annual Report for the Countywide Summary Plan and Siting Element of the Los Angeles County Countywide Integrated Waste Management Plan*, (2009) 2; California Integrated Waste Management Board, *Jurisdiction Profile for Los Angeles County*, <http://www.ciwmb.ca.gov/Profiles/Juris/JurProfile2.asp?RG=U&JURID=274&JUR=Los+Angeles-Unincorporated>. 2007. As stated in the *Jurisdiction Profile for Los Angeles County*, the California Integrated Waste Management Board states that in 2004, the average diversion rate for the County of Los Angeles was 53 percent. However, the *2007 Annual Report for the Countywide Summary Plan and Siting Element of the Los Angeles County Countywide Integrated Waste Management Plan*, states that the diversion rate was 50 percent. This analysis assumes the more conservative rate of 50 percent.

²⁰ Los Angeles County Department of Public Works, *2007 Annual Report*.

²¹ Los Angeles County Department of Public Works, *2007 Annual Report*, 29-30.

²² Los Angeles County Department of Public Works, *2007*, Appendix E-2, Table 1.

3.2 Solid Waste Recycling, Conversion, Reduction, and Diversion

According to the City of Los Angeles Solid Resources Infrastructure Strategy Facilities Plan, the infrastructure and programs that are planned for the City of Los Angeles emphasize the practices of recycling and source reduction in order to achieve a 70 percent diversion rate by 2020.²³ In 2006, the City of Los Angeles is estimated to have achieved an actual diversion rate of 59 percent.²⁴

On Aug. 18, 2005, a task force was assembled by the Sanitation District adopted the *Conversion Technology Evaluation Report*, which evaluated hundreds of technologies. The *Conversion Technology Evaluation Report* detailed a step-by-step plan to develop a Conversion Technology Demonstration Facility, which could validate the technical, environmental, and economic feasibility of conversion technologies; provide a showcase for interested parties; and yield tangible support data for future development.

The goals of the Southern California Conversion Technology Demonstration Project are to:

- Educate about solid waste challenges;
- Support organizations working toward zero-waste;
- Evaluate and promote the development of conversion technologies to recover energy and products from waste; and
- Work with communities in Southern California to create a demonstration conversion technology facility.

Conversion technologies include a variety of thermal, chemical, and biological processes, such as incineration, pyrolysis, destructive distillation, and gasification (discussed above), that break down solid waste into usable resources such as ethanol, biodiesel and other green fuels.

The County of Los Angeles closed the Phase III/IV Request for Proposals for the Conversion Technology Project on January 15, 2009. Phase III is the development of a demonstration facility, and Phase IV is the siting of commercial facilities in Los Angeles County.²⁵

²³ City of Los Angeles Department of Public Works, "Solid Resources Infrastructure Strategy Facilities Plan," http://www.lacitysan.org/solid_resources/strategic_programs/diversion_strategy/index.htm. 2009.

²⁴ California Integrated Waste Management Board, "Countywide, Regionwide, and Statewide Jurisdiction Diversion Progress Report," <http://www.calrecycle.ca.gov/LGCentral/DivMeasure/StepByStep.htm>. 2009.

²⁵ Southern California Conversion Technology, "The Southern California Conversion Technology Demonstration Project," <http://www.socalconversion.org/vision.html>. 2009.

3.3 Solid Waste Disposal and Capacity

3.3.1 Class III Landfills (Municipal Solid Waste Landfills)

The Class III Landfills that currently accept waste generated within the City of Los Angeles and collected by the City of Los Angeles Bureau of Sanitation are the Calabasas Landfill in Los Angeles County,²⁶ the Sunshine Canyon Landfill in Los Angeles County, and the El Sobrante Landfill in Riverside County.²⁷ Waste generated within the City of Los Angeles and collected by private haulers may be taken to additional facilities, including the Antelope Valley Landfill in Los Angeles County, Chiquita Canyon Landfill in Los Angeles County, Lancaster Landfill in Los Angeles County, and out-of-County landfills such as the Frank R. Bowerman, Olinda Alpha, and Prima Deshecha Sanitary Landfills in Orange County, and the Simi Valley Landfill & Recycling Center in Ventura County.

The Class III Landfills that accept waste generated within the City of Los Angeles are identified in **Table IV.L.3-1, In-County Class III Landfills Serving the City of Los Angeles** and **Table IV.L.3-2, Out-of-County Class III Landfills Available for Use by the City of Los Angeles**. No in-County or out-of-County landfills accept waste exclusively generated by the City of Los Angeles. Rather, the landfills identified in **Tables IV.L.3-1** and **IV.L.3-2** accept waste from around Los Angeles County, including the City of Los Angeles. Landfills located in Los Angeles County that do not accept waste from the City of Los Angeles, but do accept waste from other jurisdictions within the County, are not listed in these tables.

As of January 2008, the five landfills in Los Angeles County that serve the City of Los Angeles have a combined remaining capacity of approximately 53.31 million tons, as shown in **Table IV.L.3-1**. This estimate of remaining in-County landfill capacity does not reflect several expansions that have either been approved or are currently being pursued. Significant expansions have been proposed to the capacities of the Antelope Valley Landfill (adding 8.96 million tons) and the Chiquita Canyon Landfill (adding 32 million tons), while the Sunshine Canyon Landfill was approved for a 67.7 million ton expansion in June 2008.

As shown in **Table IV.L.3-2**, Los Angeles County jurisdictions, including the City of Los Angeles, export an average of 6,347 tons per day to out-of-County landfills.²⁸ Current contractual agreements between Los Angeles County and out-of-County landfill operators allow exports of up to 9,250 tons per day.²⁹ However, the long-term availability of out-of-County landfill capacity is subject to the terms of future contractual agreements. Data presented in **Table IV.L.3-2** does not reflect the additional capacity that

²⁶ Disposal at the Calabasas Landfill is limited to waste generated within the portion of the City west of the San Diego Freeway (I-405) and north of Sunset Boulevard, and several unincorporated communities.

²⁷ Personal communication with Dave Thompson, City of Los Angeles Environmental Affairs Department, November 24, 2008.

²⁸ Los Angeles County Department of Public Works, *2007 Annual Report*, 20.

²⁹ Los Angeles County Department of Public Works, *2007 Annual Report*, 40.

would be provided by operation of the Eagle Mountain Landfill in Riverside County³⁰ or the Mesquite Regional Landfill in Imperial County.³¹ Together, these landfills would provide Los Angeles County with an additional solid waste capacity of 30,000 tons per day, or approximately 9.36 million tons per year for 100 years.³²

Table IV.L.3-1
In-County Class III Landfills Serving the City of Los Angeles

Landfill	Maximum Daily Capacity (tons)	Average Daily Disposal in 2007 (tons)	Total Disposal in 2007 (million tons)	Remaining Permitted Capacity as of January 2008 (million tons)
Antelope Valley Landfills I and II	3,200	1,133	0.353	8.69 ¹
Calabasas Landfill	3,500	1,487	0.464	8.17
Chiquita Canyon Landfill	6,000	4,946	1.543	9.52 ²
Lancaster Landfill	1,700	1,337	0.417	13.80
Sunshine Canyon Landfill ³	12,100	5,742	1.792	13.13 ⁴
Total			3.596	53.31

Source: Los Angeles County Department of Public Works, Los Angeles County Countywide Integrated Waste Management Plan 2007 Annual Report. 2009.

¹ The landfill operator/owner is currently seeking approvals for a proposed expansion to the Antelope Valley Landfill that would result in an additional 8.96 million tons of capacity.

² In October 2004, the Chiquita Canyon Landfill owner/operator submitted an application for a new Conditional Use Permit (CUP), which is currently being reviewed. The CUP proposes a horizontal and vertical expansion of about 32 million tons to the Chiquita Canyon Landfill.

³ Sunshine Canyon Landfill is located partially within the City of Los Angeles and partially within unincorporated Los Angeles County. Both portions of the landfill accept waste generated within the City of Los Angeles.

⁴ Although not reflected in the 2007 Annual Report calculations on which this table is based, on June 17, 2008, the CIWMB concurred in the issuance of a new solid waste facilities permit for the Sunshine Canyon City/County Landfill that increased its capacity to 67.7 million tons and extended its life by 30 years. On July 7, 2008 the CIWMB issued this permit to the facility operator. (Source: CIWMB, "Sunshine Canyon Landfill Permit Process," <http://www.ciwmb.ca.gov/PermitToolbox/Notices/SunshineCnyn/default.htm>. 2009)

³⁰ Eagle Mountain Landfill is fully permitted. However, the purchase of Eagle Mountain Landfill by the County Sanitation Districts of Los Angeles County and its eventual operation are contingent upon successful resolution of pending federal litigation.

³¹ Mesquite Regional Landfill is fully permitted and anticipated to be operational in 2009.

³² Estimate of annual capacity is based on disposal of 30,000 tons per day (maximum permitted), six days per week.

**Table IV.L.3-2
Out-of-County Class III Landfills Available for Use by the City of Los Angeles**

Landfill	Maximum Daily Capacity (tons)	Average Daily Disposal in 2007 (tons)	Average Daily Imports from Los Angeles County in 2007 (tons)	Maximum Daily Imports from Los Angeles County³ (tons)
El Sobrante Landfill (Riverside County)	10,000	7,080	2,723	4,000
Frank R. Bowerman Sanitary Landfill (Orange County) ¹	8,500	6,700	834	1,500
Olinda Alpha Sanitary Landfill (Orange County) ¹	8,000	6,100	1,314	1,500
Prima Deshecha Sanitary Landfill (Orange County) ¹	4,000	1,900	258	1,500
Simi Valley Landfill & Recycling Center (Ventura County)	3,000	2,500	756	750
Other Out-of-County Landfills ²	--	--	462	--
Total			6,347	9,250

Source: Los Angeles County Department of Public Works, Los Angeles County Countywide Integrated Waste Management Plan 2007 Annual Report, 2009.

¹ Imported waste tonnage is received under 10-year contracts with franchise waste haulers. The current contracts with the Frank R. Bowerman Sanitary Landfill and Prima Desecha Sanitary Landfill allow disposal through 2015. The current contract with the Olinda Alpha Sanitary Landfill allows disposal through 2013.

² Waste exported to facilities in other counties including Kern, Kings, San Diego, and Stanislaus Counties.

³ Maximum imports allowed under current contracts between Los Angeles County and out-of-County landfill operators.

The 2007 Annual Report for the Countywide Summary Plan and Siting Element of the Los Angeles County Countywide Integrated Waste Management Plan, revised May 2009 (2007 Annual Report) estimates that Countywide solid waste generation will increase from approximately 23 million tons in 2007 to approximately 34 million tons in 2022. Assuming an annual waste diversion rate of 50 percent, the total Class III Landfill disposal capacity need during this 15-year planning period is 199.5 million tons. As of January 1, 2008, the remaining permitted capacity of all Class III landfills in the County (including those that do not accept waste from the City of Los Angeles) is estimated at 91.4 million tons (147.2 million cubic yards). Therefore, the Class III Landfill disposal need would exceed the existing remaining permitted Class III Landfill capacity sometime during the year 2014 if no additional facilities or expansions are implemented.

In response, the 2007 Annual Report identifies several strategies for maintaining adequate disposal capacity during the current 15-year planning period (2007–2022). These strategies include successfully permitting and developing all in-County landfill expansions, utilizing available or planned out-of-County disposal capacity, developing the necessary infrastructure to facilitate exportation of waste to out-of-County landfills (i.e., a waste-by-rail system), and developing conversion/alternative technology facilities. The 2007 Annual Report also projects that increasing the current Countywide diversion rate from 50 percent to 60 percent would further assure that the County's disposal capacity needs would be met through the end of the present planning period (2022).³³ As previously described, the in-County landfills for which expansions are being pursued as of this writing include the Antelope Valley Landfill (adding 8.96 million tons) and the Chiquita Canyon Landfill (adding 32 million tons). Out-of-County landfills being developed include the Eagle Mountain Landfill in Riverside County and the Mesquite Regional Landfill in Imperial County. Operation of the latter two landfills would provide enough additional capacity to accommodate Los Angeles County's disposal need during the latter part of the present 15-year planning period (2007–2022).³⁴ Proposed and approved landfill expansions and new facilities are summarized in **Table IV.L.3-3, Proposed or Approved Class III Landfill Expansions and Future Landfills**.

3.3.2 Unclassified (Inert) Landfills

As shown in **Table IV.L.3-4, Permitted Unclassified Landfills**, as of January 1, 2008, the remaining permitted combined Unclassified landfill capacity in Los Angeles County was estimated at approximately 51 million tons. At the 2007 average rate of disposal of 440 tons per day (0.137 million tons per year), this capacity would be exhausted in 372 years.³⁵ Accordingly, the County currently has adequate permitted unclassified inert waste disposal capacity. In addition to the three permitted facilities identified in **Table IV.L.3-4**, numerous unclassified landfills accepting inert debris are located throughout Los Angeles County. These landfills are typically old mines or quarries that are being refilled, or canyons and gullies that are being filled. Available facilities include the Nu-Way Live Oak Reclamation Facility, Reliance Pit No. 2, Peck Road Gravel Pit, Irwindale Live Oak Ave., Strathern Sanitary Landfill, Calmat Class III Disposal Site, and Vulcan Inert Landfill, among others.³⁶

³³ Los Angeles County Department of Public Works, *2007 Annual Report*, 39.

³⁴ Los Angeles County Department of Public Works, *2006 Annual Report*, Appendix E-2.12.

³⁵ Los Angeles County Department of Public Works, *2007 Annual Report*, Appendix E-2, Table 1.

³⁶ City of Los Angeles Department of Public Works, "Construction and Demolition Recycling Guide," http://www.ci.la.ca.us/SAN/solid_resources/pdfs/C&D_guide.pdf. 2008.

**Table IV.L.3-3
Proposed or Approved Class III Landfill Expansions and Future Landfills**

Landfill	Remaining Permitted Capacity as of January 2008 (million tons)	Expansion (million tons)	Estimated Capacity After Expansion (million tons)
Antelope Valley Landfills I and II (Los Angeles County)	8.69	8.96	17.65
Chiquita Canyon Landfill (Los Angeles County)	9.52	32.0	41.52
Eagle Mountain Landfill (Riverside County)	--	600	600
Mesquite Regional Landfill (Imperial County)	--	708	708
Sunshine Canyon Landfill (Los Angeles County) ¹	13.13	67.7	80.83
Total		1,417	1,448

Source: Los Angeles County Department of Public Works, Los Angeles County Countywide Integrated Waste Management Plan 2007 Annual Report, 2009.

¹ The expansion to the Sunshine Canyon Landfill has already been approved.

**Table IV.L.3-4
Permitted Unclassified Landfills**

Landfill	Maximum Daily Capacity (tons)	Average Daily Disposal in 2007 (tons)	Total Disposal in 2007 (million tons)	Remaining Permitted Capacity as of January 2008 (million tons)
Azusa Land Reclamation	6,500	439	0.137	43.00
Brand Park	100	--	--	0.25
Peck Road Gravel Pit	1,210	1	0.000	7.80
Total	7,810	440	0.137	51.05

Source: Los Angeles County Department of Public Works, Los Angeles County Countywide Integrated Waste Management Plan 2007 Annual Report, 2009.

3.3.3 Transformation (Waste to Energy) Facilities

Two transformation facilities, the Commerce Refuse to Energy Facility in the City of Commerce and the Southeast Resource Recovery Facility in the City of Long Beach, operate within Los Angeles County.³⁷ With a combined average daily disposal of 1,883 tons, these two facilities are anticipated to transform 587,000 tons of waste per year through 2022 (the end of the current 15-year planning period).

3.4 LMU Campus Solid Waste Generation and Disposal

3.4.1 Solid Waste Generation

Table IV.L.3-5, Existing LMU Campus Solid Waste Generation identifies the quantity of solid waste currently generated by the existing LMU campus, both prior to and following recycling. The campus currently generates approximately 5,800 tons of solid waste per year.³⁸

**Table IV.L.3-5
Existing LMU Campus Solid Waste Generation**

Existing Uses	Quantity	Generation Factor	Annual Waste Generation	Waste Diverted ³	Waste Disposed of in Landfill
Residential – Student and Jesuit Housing	3,261 student beds and 33 Jesuits beds	6.115 lbs/bed/day ¹	3,676 tons	2,154 tons	1,522 tons
Academic/ Administrative/ Indoor Athletic Facilities	1,836 ksf	1.157 tons/ksf/year ²	2,124 tons	1,246 tons	878 tons
Total			5,800 tons	3,400 tons	2,400 tons

ksf = thousand square feet; lbs = pounds; 2000 lbs = 1 ton.

¹ Waste generation rate of 6.115 pounds per bed per day is based on the rate of 12.23 pounds per dwelling unit per day provided by the City of Los Angeles CEQA Thresholds Guide and an occupancy rate of 2 beds per dwelling unit.

² Academic, administrative, and indoor athletic facility (non-residential) waste generation was determined by subtracting residential waste generation from total campus waste generation (5,800 tons – 3,676 tons = 2,124 tons). In order to determine waste generation per 1,000 square feet of non-residential facilities, the non-residential waste total was divided by the total non-residential floor area on campus (2,124 tons/1,836 thousand square feet = approximately 1.157 tons per thousand square feet per year).

³ Quantity of waste diverted was determined by multiplying LMU's campuswide diversion rate of 58.6 percent, as estimated by LMU, to the annual waste generation. This diversion rate is based on the average annual recovery of 3,400 tons of solid waste for recycling, as reported by LMU, from LMU's average annual waste generation of 5,800 tons.

³⁷ Los Angeles County Department of Public Works, 2006 Annual Report, Appendix E-2.1.

³⁸ Personal communication with Michael G. Lotito, Director of Plant Operations, LMU, December 17, 2008.

Through LMU's recycling program, which is described in greater detail below, the current annual waste diversion rate on campus is estimated to be 58.6 percent.³⁹ Thus, approximately 3,400 tons of the 5,800 tons of solid waste generated on campus are diverted from landfills each year. The balance, 2,400 tons, is deposited into a landfill.

3.4.2 Solid Waste Collection and Disposal⁴⁰

Several types of waste disposal bins are located throughout the campus. Non-recyclable waste is collected and delivered to any of the four on-campus garbage compactors, located in or adjacent to the Facilities and Maintenance Operations Yard, the Leavey Campus student housing complex, the Malone Student Center, and University Hall. Waste is then transported off-campus by LMU's contracted hauler, Consolidated Disposal Service, LLC, a subsidiary of Republic Services, Inc. Eight solid waste hauls are required each week.

Waste discarded into designated recycling bins is collected and delivered to the on-campus recycling area, located in the Facilities and Maintenance Operations Yard. Containers are provided for office paper, cardboard, and recyclable containers (i.e., plastic bottles, aluminum cans, glass, etc). Additionally, the recycling area handles scrap wood, scrap metal, e-waste, ink cartridges and green (landscaping) waste. No waste is chemically processed at the recycling area, but instead is baled (or compacted by a baling machine and bound together), compacted, and readied for collection by Consolidated Disposal Service. Five recyclable waste hauls are required each week. LMU has established a campuswide recycling program, under which it has achieved an annual waste diversion rate of up to 59 percent and 100 percent diversion of green waste generated on campus. The primary landfill that presently serves the campus is the Sunshine Canyon Landfill.⁴¹ Disposal at additional sites may be facilitated through contractual agreements between Consolidated Disposal Service and the operators of other landfills.

4.0 ENVIRONMENTAL IMPACT ANALYSIS

4.1 Methodology

Solid waste generation factors were obtained from the Los Angeles California Environmental Quality Act (CEQA) Thresholds Guide, the California Integrated Waste Management Board website, estimates of actual solid waste generation on campus, or a combination of the above. The determination of remaining

³⁹ Personal communication with Michael G. Lotito, Director of Plant Operations, LMU. This diversion rate is based on the average annual recovery of 3,400 tons of solid waste for recycling from LMU's average annual waste generation of 5,800 tons.

⁴⁰ Personal communication with Michael G. Lotito, Director of Plant Operations, LMU, December 17, 2008.

⁴¹ Personal communication with Michael G. Lotito, Director of Plant Operations, LMU, February 27, 2009.

landfill capacity was based on the 2007 Annual Report for the Countrywide Summary Plan and Siting Element of the Los Angeles County Countywide Integrated Waste Management Plan, which contains the most recent data on landfills serving the cities and unincorporated areas of Los Angeles County, and data provided by the California Integrated Waste Management Board.

4.2 Significance Thresholds

The *Los Angeles CEQA Thresholds Guide* indicates that the determination of significance shall be made on a case-by-case basis, considering the following factors:

- Amount of projected waste generation, diversion and disposal during demolition, construction and operation of the project, considering proposed design and operational features that could reduce typical waste generation rates;
- Need for an additional solid waste collection route or recycling or disposal facility to adequately handle project-generated waste; and
- Whether the project conflicts with solid waste policies or objectives in the Source Reduction and Recycling Element or its updates, City of Los Angeles Solid Waste Management Policy Plan, Framework Element or Curbside Recycling Program, including consideration of the land use-specific waste diversion goals contained in Volume 4 of the Source Reduction and Recycling Element.

Appendix G of the *State CEQA Guidelines* provides sample questions for use in an initial study to determine a project's potential for environmental impacts. According to the sample questions⁴² included in Appendix G under Section XVI Utilities and Service Systems, a project should be evaluated for potentially significant impacts based on whether it would:

XVI.f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs; or

XVI.g) Comply with federal, state, and local statutes and regulations related to solid waste.

The factors used in the *Los Angeles CEQA Thresholds Guide* to determine significant solid waste impacts are inclusive of those provided in Appendix G of the *State CEQA Guidelines*. Therefore, based on these factors the Proposed Project would have a significant impact on solid waste if:

SW-1 The Proposed Project creates a need for an additional solid waste collection route, or recycling or disposal facility, to adequately handle project-generated waste; or

⁴² The remainder of the Appendix G Utilities and Service Systems sample questions (XVI.a through -e) pertain to water supply and wastewater and are addressed in **Sections IV.L.1, Water Supply, and IV.L.2, Wastewater**. Sample question XVI.c is addressed in **Section IV.G, Surface Water Hydrology and Water Quality**.

SW-2 The Proposed Project conflicts with solid waste policies and objectives in the Source Reduction and Recycling Element or its updates, City of Los Angeles Solid Waste Management Policy Plan, Framework Element or the Curbside Recycling Program, including consideration of the land-use-specific waste diversion goals contained in Volume 4 of the Source Reduction and Recycling Element.

4.3 Project Design Features

Under the Proposed Project, LMU would continue to achieve a campuswide waste diversion rate of at least 58.6 percent through recycling activities.

4.4 Project Impacts

SW-1 Would the Proposed Project create a need for an additional solid waste collection route, or recycling or disposal facility, to adequately handle Project-generated waste?

Construction

Through the Proposed Project, LMU seeks to improve its facilities over a 20-year period in order to meet the educational needs and goals of the LMU. Approximately 28 percent of the campus building stock is deemed to be in need of replacement. The Proposed Project proposes the removal of approximately 515,000 gross square feet of academic and administrative facilities, approximately 370,000 gross square feet of residential facilities, and approximately 80,000 gross square feet of indoor athletic facilities. The Proposed Project would also add approximately 1,023,000 gross square feet of academic and administrative facilities, approximately 846,000 gross square feet of residential facilities, and approximately 108,000 gross square feet of indoor athletic facilities. The Proposed Project would also reconfigure inadequate campus outdoor athletic facilities and open space amenities, roadways, parking facilities, and pedestrian circulation accommodations, and implement infrastructure upgrades as needed.

Construction of the Proposed Project is anticipated to occur over a 20-year period. Buildout will consist of building demolition, site clearing, earthwork grading and excavation, paving and building construction. It is estimated that implementation of the Proposed Project could result in the grading and excavation of approximately 693,000 cubic yards (901,000 tons)⁴³ of soil. Additionally, approximately 107,222 cubic yards⁴⁴ (2,895,000 cubic feet or 75,055 tons)⁴⁵ of demolition debris would be generated. This waste is anticipated to include concrete, stucco, asphalt, rocks, building materials, wood, paper, glass, plastic, metals, cardboard, and other inert wastes (i.e., wastes that are not likely to produce leachates of environmental concern).⁴⁶ In addition, as shown in **Table IV.L.3-6, Construction Waste Generation for Proposed Project Construction**, construction of the Proposed Project would generate approximately 5,575 tons of construction waste, which consists of scrap wood, drywall, metal, concrete/asphalt, and other excess usable building material generated during construction. Unlike demolition waste, as much as 80 percent of waste generated during construction is reusable or recyclable since it is relatively clean and therefore marketable.⁴⁷ Altogether, construction activities would result in the total generation of 981,630 tons of solid waste, assuming no reuse or recycling of construction waste. The demolition and construction process would include efforts to separate debris and recycle a minimum of 50 percent of the basic building materials, pursuant to AB 939, although the City of Los Angeles currently does not specifically enforce construction and demolition debris recycling requirements.

⁴³ Calculation of tonnage is based on density factor of 2,550 pounds (1.3 tons) of mixed wet and dry earth material per cubic yard. (Source: CIWMB, Construction and Demolition Debris Recycling, <http://www.calrecycle.ca.gov/ConDemo/>. 2009.)

⁴⁴ Based on conservative default URBEMIS values, demolition debris was assumed to equal 25 percent of the total building volume to be removed. Building volume was calculated as the square footage of the floor area to be removed (965,000 gross square feet total) x 12 feet. The average height of a one-story, non-residential building is 12 feet.

⁴⁵ Calculation of tonnage is based on density factor of 1,400 pounds (0.7 tons) of mixed asphalt, concrete and wood construction debris per cubic yard. (Source: CIWMB, Construction and Demolition Debris Recycling, <http://www.calrecycle.ca.gov/ConDemo/>. 2009.)

⁴⁶ Leachates are liquid substances that have percolated through solid waste or are generated by solid waste decomposition and contain dissolved or suspended materials and can contaminate ground or surface water. (Source: The School Diversion and Environmental Education Law, "School DEEL Resource Manual," November 2005.)

⁴⁷ City of Santa Monica Green Building Program, Solid Waste Division, "Construction Management Introduction," http://www.smgov.net/Departments/OSE/Categories/Green_Building/Guidelines/Construction_Management/Construction_Management.aspx. 2009.

**Table IV.L.3-6
Construction Waste Generation for Proposed Project Construction**

Material	Generation Factor (tons/ksf)	Square Feet to be Constructed (ksf)	Construction Debris Generated (tons)
Wood	0.86	1,977 ¹	1,700
Drywall	0.22	1,977	435
Metal	0.21	1,977	415
Concrete/Asphalt	0.99	1,977	1,957
Other	0.54	1,977	1,068
Total	2.82	1,977	5,575

Source: City of Santa Monica Green Building Program, Solid Waste Division, "Construction Projects – Typical Waste Generation Rates," <http://greenbuildings.santa-monica.org/appendices/apawastegeneration.html>. 2009.

¹ Assumed Proposed Project construction of 1,977,000 gross square feet.

ksf = thousand square feet

Exported soil and demolition debris would be hauled to one or more of the several Unclassified landfills serving Los Angeles County (unlike Class III landfills, Unclassified landfills are designated for the exclusive disposal of inert debris such as earth material and construction materials). Earth material disposed at Unclassified landfills could be used for "alternative daily cover" operations and may not count towards the maximum refuse permitted at the landfill. Alternative daily cover consists of shredded green waste and soil used to meet part of each landfill's daily cover requirements and as mulch for weed and erosion control.⁴⁸ As of January 1, 2008, the remaining permitted combined Unclassified landfill capacity in the County was estimated at 51.05 million tons (34.03 million cubic yards).⁴⁹ Combined, the exported soil, demolition debris, and construction debris generated by the Proposed Project would represent approximately 1.9 percent of the County's remaining capacity if no recycling is implemented. At the 2007 average rate of disposal of 440 tons per day, the County's total remaining capacity would be exhausted in 372 years. Accordingly, the County has adequate permitted inert waste disposal capacity for the foreseeable future.⁵⁰ Therefore, solid waste impacts during construction would be less than significant.

⁴⁸ Sanitation Districts of Los Angeles County, *2004-2005 Solid Waste Management Highlights*, http://www.lacsd.org/info/publications_n_reports/fiscal04_05/04_05solidhighlights.asp. 2009.

⁴⁹ Los Angeles County Department of Public Works, *2007 Annual Report*, Appendix E-2, Table 1.

⁵⁰ Los Angeles County Department of Public Works, *2007 Annual Report*, Appendix E-2, Table 1.

Operation

Implementation of the Proposed Project would increase the amount of solid waste generated on the campus due to the increase in the on-campus student housing supply and increase in academic, administrative, and indoor athletic facilities. As shown in **Table IV.L.3-7, Proposed Project Net New Solid Waste Generation**, the Proposed Project would generate approximately 1,724 net new tons of solid waste per year before recycling. However, LMU would continue to conduct its campuswide recycling program that presently achieves a 58.6 percent waste diversion rate. Therefore, the campus would divert approximately 1,010 tons of solid waste from landfills (58.6 percent of 1,724 net new tons). As a result of the Proposed Project, the campus would dispose of approximately 714 additional tons of solid waste per year in landfills after recycling, compared to existing conditions.

**Table IV.L.3-7
Proposed Project Net New Solid Waste Generation**

Proposed Land Use	Quantity (Net New)	Generation Factor¹	Annual Waste Generation	Waste Diverted¹	Waste Disposed of in Landfill
Residential – Student and Jesuit Housing	989 student beds	6.115 lbs/bed/day	1,104 tons	647 tons	457 tons
Academic/ Administrative/ Indoor Athletic Facilities	536 ksf	1.157 tons/ksf/year	620 tons	363 tons	257 tons
Total			1,724 tons	1,010 tons	714 tons

ksf = thousand square feet; lbs = pounds; 2000 lbs = 1 ton.

¹ See **Table IV.L.3-5** for calculation of waste generation rates. Waste generation rates following Proposed Project buildout are assumed to be equivalent to existing waste generation rates.

The Sunshine Canyon Landfill is the primary landfill serving the campus; however, disposal at additional landfills may be facilitated through contractual agreements between Consolidated Disposal Service (LMU's waste hauler) and the operators of other landfills. The net annual increase of 714 tons resulting from operation of the Proposed Project represents less than 0.1 percent of the 2007 disposal rate of approximately 1.8 million tons to the Sunshine Canyon Landfill. Therefore, the increase in disposal at the Sunshine Canyon Landfill as a result of the Proposed Project would not be substantial. Although not reflected in the 2007 Annual Report calculations, in June 2008, the California Integrated Waste Management Board issued a permit to increase the capacity of the Sunshine Canyon Landfill by 67.7

million tons.⁵¹ This expansion will increase the landfill's lifespan by 30 years and further enhance the ability of the Sunshine Canyon Landfill to accommodate waste generated by the campus following Project buildout in addition to the existing solid waste stream. Therefore, Sunshine Canyon Landfill has sufficient permitted capacity to accommodate the Proposed Project's solid waste needs.

The Proposed Project would comply with all the diversion and recycling regulations of the state, County, and City, and therefore, would assist in the overall goal of reducing the amount of waste sent to landfills. LMU operates a campuswide recycling collection program that achieves a 58.6 percent waste reduction annually and diverts 100 percent of green (landscaping) waste generated on campus. LMU would continue to conduct this campuswide recycling program as part of Proposed Project implementation. Additionally, as part of the Proposed Project, LMU may relocate its recycling and waste management area to an enclosed structure close to its present location or to a new location within Drollinger Parking Plaza, centrally located on the campus. The relocated recycling area would serve the same functions as the existing recycling area, using similar equipment and processing the same recyclable materials. The capacity of the new recycling area would be adequate to meet the recycling needs of the campus at Proposed Project buildout.⁵² LMU expects to maintain its current waste diversion achievement. Additionally, LMU is actively investigating the use of in-vessel composting systems for food waste and green waste generated on campus.

The Los Angeles County Department of Public Works' 2007 Annual Report has determined that based on the continuation of business as usual practices, Los Angeles County solid waste disposal demand cannot be accommodated beyond the year 2014. However, this estimate does not account for a number of approved and proposed landfill expansions that would significantly expand landfill capacity, which could be made available to the City of Los Angeles, and the Proposed Project, in the future. Not reflected in the 2014 landfill capacity estimate is the June 2008 permit issued by the California Integrated Waste Management Board to increase the capacity of the Sunshine Canyon Landfill by 67.7 million tons, which is the Landfill that currently serves the LMU campus and would likely serve the Proposed Project.⁵³ This expansion will increase the landfill's lifespan by 30 years and further enhance the ability of the Sunshine Canyon Landfill to accommodate waste generated by the LMU campus following Proposed Project buildout. Other expansions not taken in consideration are the in-County landfill expansions currently being pursued at the Antelope Valley Landfill (adding 8.96 million tons) and the Chiquita Canyon Landfill (adding 32 million tons), or the development of out-of-County landfills such as the Eagle

⁵¹ CIWMB, "Sunshine Canyon Landfill Permit Process," <http://www.calrecycle.ca.gov/SWFacilities/Permitting/Notices/SunshineCnyn/default.htm>. 2009.

⁵² Personal communication with Michael G. Lotito, Director of Plant Operations, LMU, December 17, 2008.

⁵³ CIWMB, "Sunshine Canyon Landfill Permit Process."

Mountain Landfill in Riverside County and the Mesquite Regional Landfill in Imperial County; the operation of the latter two landfills would provide enough additional capacity to accommodate Los Angeles County's disposal need during the latter part of the present 15-year planning period (2007-2022).⁵⁴ Despite these anticipated significant expansions, because it is not yet certain when these expansions will become operational and serve the City of Los Angeles, and since the Los Angeles County Department of Public Works, which prepared the 2007 Annual Report, does not project solid waste need and capacity beyond the existing 15-year planning period (2007–2022), it is conservatively assumed that the Proposed Project would result in a potentially significant impact with respect to solid waste at buildout in 2030.

SW-2 Would the Proposed Project conflict with solid waste policies or objectives in the Source Reduction and Recycling Element or its updates, City of Los Angeles Solid Waste Management Policy Plan, Framework Element, or Curbside Recycling Program, including consideration of the land use-specific waste diversion goals contained in Volume 4 of the Source Reduction and Recycling Element?

Implementation of the Proposed Project would be consistent with all waste reduction goals set forth by the Source Reduction and Recycling Element, City of Los Angeles Solid Waste Management Policy Plan, RENEW LA, and Framework Element, which are discussed above. LMU's extensive recycling program and operations at the on-campus recycling area ensure the diversion of discarded paper, cardboard, plastics, aluminum, glass, wood, metal, e-waste, ink cartridges, and green waste from landfills. Since these on-campus recycling operations would be maintained with buildout of the Proposed Project, LMU would continue to meet waste diversion goals in compliance with the Integrated Waste Management Act. Additionally, the campus would continue to improve waste diversion efforts to comply with the diversion goals of the County's Source Reduction and Recycling Element, which is to achieve the state's mandates of 50, 60, and 75 percent waste disposal reductions for the years 2000, 2015, and 2020, respectively, and the City of Los Angeles Solid Waste Management Policy Plan, which has goals of 50 percent diversion by 2000 and 70 percent diversion by 2020. By providing a recycling area for campus use, LMU furthers the Framework Element by providing recycling services in close proximity to residential uses. Additionally, LMU will continue to work with the City to implement the goals of RENEW LA. Therefore, impacts would be less than significant.

⁵⁴ Los Angeles County Department of Public Works, *2007 Annual Report*, Appendix E-3.

4.5 Project Design Features and Mitigation Measures

PDF-SW-1 LMU shall continue to achieve a campuswide waste diversion rate of at least 58.6 percent through recycling activities.

No feasible mitigation is available to reduce potentially significant impacts associated with future insufficient landfill capacity.

4.6 Level of Impact After Mitigation

Impacts related to the Proposed Project's generation of construction and demolition debris would be less than significant. The increase in solid waste generation due to operation of the Proposed Project is considered an unavoidable significant impact, since the capacity of landfills serving the City of Los Angeles in 2030 (the buildout date for the Proposed Project) cannot be determined at this time.

4.7 Cumulative Impacts

As shown in **Table IV.L.3-8, Solid Waste Generation – Related Projects**, implementation of the Proposed Project and related projects in the campus vicinity would increase the quantity of solid waste requiring disposal at landfills serving Los Angeles County. Assuming an operational waste diversion rate of 50 percent for related projects, operation of the Proposed Project and related projects would require the disposal of 20,150 additional tons of solid waste into landfills; the Proposed Project accounts for less than 4 percent of this amount. While significant expansions of existing in-County landfills, and development of large out-of-County landfills, are anticipated, because it is not yet certain when these expansions will become operational and serve the City of Los Angeles, and since the Los Angeles County Department of Public Works, which prepared the 2007 Annual Report, does not project solid waste need and capacity beyond the existing 15-year planning period (2007–2022), it is conservatively assumed that the related projects plus the Proposed Project would cumulatively result in a potentially significant impact with respect to solid waste at Proposed Project buildout in 2030.

**Table IV.L.3-8
Solid Waste Generation – Related Projects**

Land Use	Quantity	Generation Factor¹	Annual Waste Generation (tons)	Waste Disposed of in Landfill² (tons)
Condominiums	7,783 du	12.23 lbs/du/day	17,371.00	8,686
Apartments	6,368 du	12.23 lbs/du/day	14,213.00	7,107
Assisted Living/Senior	228 du	12.23 lbs/du/day	509	255
Hotel	794 rm	4 lbs/rm/day	580	290
Commercial/Retail ³	771 ksf	5 lbs/ksf/day	704	352
Restaurant		1 lb/seat/day	115	58
	632 Seats			
Office ⁴	4,545 ksf	6 lbs/ksf/day	4,977	2,489
School	1,670 students	1 lb/student/day	305	153
Civic ⁶	76 ksf	7 lbs/ksf/day	97	49
Subtotal				19,436
Proposed Project				714
Total				20,150

¹ CIWMB, "Estimated Solid Waste Generation Rates," <http://www.CIWMB.ca.gov/WasteChar/WasteGenRates/default.htm>. 2009. These factors do not reflect any recycling activities.

² Assumes a 50 percent diversion rate.

³ Commercial uses include warehouse, new car sales, marina uses (excluding slips and vessels), and restaurants where a square footage was provided.

⁴ Office uses include banks, production studios

⁵ Assumes 35 sf per child. (1,670 * 35 = 58,450 sf; 58,450 sf + 30,000 sf (related project 60) = 88,450 sf).

⁶ Civic uses include fire station and community centers

du = dwelling units; ksf = thousand square feet; rm = room