

M.3. SOLID WASTE

1. INTRODUCTION

This section addresses potential project impacts on existing solid waste facilities and service systems as well as project consistency with solid waste regulations. It provides a description of the solid waste collection services, disposal facilities serving the project site, and regulatory measures intended to minimize the volume of solid waste requiring landfill disposal. Analysis within this section estimates the amount of solid waste that would be generated by the proposed project and forecasts potential impacts on existing solid waste collection and disposal facilities.

2. ENVIRONMENTAL SETTING

a. Regulatory Environment

While solid wastes are collected at the local level by individual jurisdictions and/or private contractors, the disposal of solid waste occurs at County landfills which generally serve multiple jurisdictions across the region. Therefore, the analysis of solid waste needs to be considered within both a regional and local context.

(1) State Regulations

The State of California has enacted three key legislations relating to solid waste. These include Assembly Bill 939 – the California Integrated Waste Management Act of 1989 (Public Resources Code Sections 41000-41460), Senate Bill 1327 – the California Solid Waste Reuse and the Recycling Access Act of 1991 (Public Resources Code Sections 42900-42911), and Senate Bill 1374 – Construction and Demolition Waste Materials Diversion Requirements. Each of these regulations is described below.

(a) Assembly Bill 939 – California Integrated Waste Management Act of 1989

The California Integrated Waste Management Act of 1989 (AB 939) introduced an integrated waste management hierarchy to guide local agencies in the implementation of source reduction, recycling, composting, and environmentally safe transformation and land disposal. It required each county to establish a task force to coordinate the development of city Source Reduction and Recycling Elements (SRREs) and a countywide siting element. It also required each county to prepare, adopt, and submit an Integrated Waste Management Plan (IWMP) to the California Integrated Waste Management Board (CIWMB), which was established by AB 939 to ensure the monitoring and enforcement of AB 939 mandates. Through source reduction, recycling, and composting activities, AB 939 required each city or county to divert 50 percent of all solid waste by January 1, 2000.

To note, on Jan. 1, 2010 California's recycling and waste diversion efforts were streamlined into the new Department of Resources Recycling and Recovery — CalRecycle. CalRecycle manages programs created through two landmark initiatives--the Integrated Waste Management Act and the Beverage Container Recycling and Litter Reduction Act--that were formerly part of the CIWMB and the Department of Conservation (DOC). Now housed in the Natural Resources Agency, CalRecycle merges the duties of the

Board with those of DOC's Division of Recycling to best protect public health and the environment by effectively and efficiently managing California's waste disposal and recycling efforts.

Although the requirements of AB 939 are directly applicable to Cities and Counties, AB 939 is identified as a relevant regulation due to the fact that individual development projects within the City contribute to the determination of whether the City of Long Beach is able to divert 50 percent of all solid waste.

(b) Senate Bill 1327 – California Solid Waste Reuse and the Recycling Access Act of 1991

The California Solid Waste Reuse and Recycling Access Act of 1991, as amended, requires individual development projects to provide adequate storage area for the collection and removal of recyclable materials. The size of these storage areas is to be determined by the appropriate jurisdiction's ordinance. If no such ordinance exists within the jurisdiction, the CIWMB-adopted ordinance shall take effect. As discussed below, Chapter 8.60 of the Long Beach Municipal Code (LBMC) addresses solid waste, recycling, and litter prevention in the City. Despite the requirements set forth in Chapter 8.60 of the LBMC, the requirements California Solid Waste Reuse and the Recycling Access Act of 1991 are conservatively included in this analysis as all development projects within the State are required to provide adequate storage area for the collection and removal of recyclable materials per the Act.

(c) Senate Bill 1374 – Construction and Demolition Waste Materials Diversion Requirements

Senate Bill 1374 (Kuehl) passed in 2002, requires that jurisdictions include in their annual AB 939 report a summary of the progress made in diverting construction and demolition waste. The legislation also requires that the CIWMB complete five items with regard to the diversion of construction and demolition waste: (1) adopt a model ordinance for diverting 50 to 75 percent of all construction and demolition debris from landfills; (2) consult with representatives of the League of California Cities, the California State Association of Counties, private and public waste services and building construction materials industry and construction management personnel during the development of the model ordinance; (3) compile a report on programs, other than the model ordinance, that local governments and general contractors can implement to increase the diversion of construction and demolition debris; (4) post a report on the agency's website for general contractors on methods by which contractors can increase diversion of construction and demolition waste materials; and (5) post on the agency's website a report for local governments with suggestions on programs, in addition to the model ordinance, to increase diversion of construction and demolition waste materials.

Although the requirements of SB 1374 are directly applicable to Cities and Counties, SB 1374 is identified as a relevant regulation due to the fact that individual development projects within the City contribute to the determination of whether the City of Long Beach is able to divert 50 to 75 percent of all construction and demolition debris from landfills.

(2) Regional Plans

(a) Los Angeles County Integrated Waste Management Plan

The Los Angeles County Integrated Waste Management Plan (CoIWMP), approved by the CIWMB on June 23, 1999, is a set of planning documents that sets forth a regional approach for the management of solid waste through source reduction, recycling and composting, and environmentally safe transformation and disposal.

The CoIWMP recognizes that landfills will remain an integral part of the County's solid waste management system in the foreseeable future and assures that the waste management practices of cities and other jurisdictions in the County are consistent with the solid waste diversion goals of AB 939.

The County continually evaluates landfill needs and capacity through its preparation of the CoIWMP annual reports. Within each annual report, future landfill disposal needs over the next 15-year planning horizon are addressed, in part, by determining the available landfill capacity. Landfill capacity is determined by several factors including: (1) the expiration of various landfill permits (e.g., land use permits, waste discharge requirement permits, solid waste facilities permits, and air quality permits); (2) restrictions to accepting waste generated only within a landfill's particular jurisdiction and/or watershed boundary; and (3) operational constraints. The most recent annual report was completed for 2008.

The CoIWMP includes the Countywide Integrated Waste Management Summary Plan (Summary Plan), which was approved by the CIWMB on June 23, 1999. Pursuant to AB 939, the Summary Plan describes the actions to be taken to achieve the mandated waste diversion goals of AB 939. The Summary Plan establishes Countywide goals and objectives for integrated waste management; establishes an administrative structure for preparing and managing the Summary Plan; describes the Countywide system of governmental solid waste management infrastructure; describes the current system of solid waste management in County and the cities; summarizes the types of solid waste programs; describes programs that could be consolidated or coordinated Countywide; and analyzes how these Countywide programs are to be financed. The County is currently in the process of updating the Summary Plan to include new revised goals and policies, to promote conversion technologies and the development of facilities to export waste to out-of-County landfills, provide an update on Countywide programs to better assist jurisdictions, and reflect changes in the Countywide solid waste management system.¹ The update of the Summary Plan was anticipated to be complete in 2010, but as of February 2011, an updated plan has not been released.

Also part of the CoIWMP and pursuant to AB 939, the County prepared the Countywide Siting Element (Siting Element), which identifies goals, policies, and strategies that provide for the proper planning and siting of solid waste disposal and transformation facilities for the next 15 years. The Siting Element was approved by the CIWMB on June 24, 1998, and provides strategies and establishes siting criteria for evaluating the development of needed disposal and transformation facilities. The County is also currently in the process of updating the Siting Element to reflect the most recent information regarding remaining landfill disposal capacity and the County's current strategy for maintaining adequate disposal capacity. As with the Summary Plan, the update of the Siting Element is anticipated to be complete in 2011.

The CIWMB is conservatively identified as a relevant regulation as its planning documents set forth the regional approach for the management of solid waste through source reduction, recycling and composting, and environmentally safe transformation and disposal. Individual development projects throughout the region contribute to the determination of whether the CIWMB is ultimately implemented in a manner consistent with its desired approach.

¹ *Los Angeles County Department of Public Works, Environmental Programs Division, Los Angeles County Integrated Waste Management Plan, 2008 Annual Report, October 2009.*

(3) City of Long Beach Plans and Regulations

(a) City of Long Beach Municipal Code

Chapter 8.60 of the LBMC addresses solid waste, recycling, and litter prevention in the City. Sections 8.60.025 and 8.60.020 establish standards and guidelines regarding refuse and recycling receptacles for removing and conveying waste, Section 8.60.050 addresses waste requiring special handling (e.g., material likely to become airborne), and Section 8.60.080 discusses permitting surrounding refuse transportation. Chapter 18.97 discusses regulations surrounding the City's construction and demolition recycling program. Section 18.97.020 requires all construction projects issued a building permit after January 1, 2008 and projected to have a valuation greater than \$50,000 to divert at least 60 percent of all project-related construction and demolition material.

As future property owners or occupants utilizing receptacles on the site would be serviced by the City, operational activities would be subject to the applicable requirements of Section 8.60 of the LBMC. In addition, since the proposed project would have a valuation greater than \$50,000, it would be subject to the applicable requirements of Section 18.97.020 of the LBMC.

b. Physical Environment

(1) Solid Waste Collection

In 2009, the citizens and businesses of Long Beach generated approximately 450,665 tons of residential, commercial, and industrial waste.² The City has one of the highest diversion rates of any large city in the United States, with an estimated 69 percent of the City's trash diverted from disposal through recycling, reuse, and waste reduction programs for the year 2006.³

Residents and businesses receive a comprehensive range of refuse disposal and waste management planning services from the Refuse Collection Division of the Environmental Services Bureau. Currently, the Refuse Collection Division provides service to approximately 109,000 residential customers and 5,600 businesses. Automated Refuse Collection occurs weekly by automated refuse trucks, which are equipped with a mechanical arm that lifts and empties a specially-designed refuse cart. As a result of California's waste reduction law, monthly service charges for waste collection are based on the size and number of containers used. A number of items cannot be disposed of through the City's automated collection system. These include rocks, concrete, dirt, hot ashes, heavy items, and debris from construction, remodeling or demolition. However, the City provides Special Collections and Oversized Items service to manage such items. Residential accounts are provided with two free special collections per year, however, fees are assigned for items requiring special handling. After solid waste is collected, it is disposed at either a Class III landfill, which accepts non-hazardous solid waste, or an unclassified (inert) landfill, which accepts construction waste, yard trimmings, and earth-like waste.

² *CalRecycle, Jurisdictional Diversion and Disposal Profile, Year 2008, accessed online at: <http://www.calrecycle.ca.gov/Profiles/Juris/JurProfile2.asp?RG=C&JURID=267&JUR=Long+Beach>, accessed February 2011.*

³ *Ibid.* Year 2006 is the most recent year reported for the City of Long Beach.

(2) Class III Landfills

The County has a total of 13 Class III landfills, however; the disposal of solid waste needs to be considered in the context of the regional and local levels since County landfills usually serve multiple jurisdictions.

(a) Regional

Without additional landfill capacity, it is projected that in-County disposal needs may exceed the future remaining permitted capacity. Due to the difficulties in establishing new landfills or expanding existing landfills, solid waste disposal at out-of-county facilities is necessary to meet future disposal needs.⁴ Waste-by-rail allows the County to utilize out-of-county disposal facilities by transporting solid waste to remote facilities through use of an existing rail system. A waste-by-rail system consists of materials recovery facilities and transfer stations whereby recyclable materials are collected and remaining non-hazardous wastes are loaded into rail-ready shipping containers. The rail-ready shipping containers are delivered by truck to a local rail yard loading facility, where the containers are loaded onto rail cars and then transported by rail to remote landfills for disposal.

Within California, there are two landfills that were intended to receive waste via rail: the Mesquite Regional Landfill in Imperial County and the Eagle Mountain Landfill in Riverside County. In August 2000, the Sanitation Districts of Los Angeles County (LACSD) entered into purchase agreements for both of these sites, which are located approximately 200 miles east of Los Angeles along the Union Pacific Railroad. The Mesquite Regional Landfill is fully permitted to accept residual solid waste transported from southern California communities by rail. The approved landfill footprint of 2,290 acres will provide capacity for approximately 600 million tons of solid waste and 100 years of operation at a maximum of 20,000 tons per day (tpd).⁵ LACSD, which completed the purchase of this facility in December 2002, expects the site to be operational in 2010/2011 and ready for waste-by-rail in 2011/2012. As of August 2010, LACSD abandoned plans for the purchase and operation of Eagle Mountain Landfill, and as such this site is no longer being considered for waste-by-rail disposal.⁶

Additionally, in order to meet future disposal needs and address global climate change, the County is actively exploring and seeking the use of conversion technologies. Conversion technologies are an array of emerging technologies capable of converting post-recycling residual solid waste into useful products and chemicals, green fuels like ethanol and biodiesel, and clean, renewable energy. The County has recently launched the Southern California Conversion Technology Demonstration Project, which seeks to promote, evaluate, and establish a demonstration facility for the conversion of solid waste into clean energy.⁷ Additionally, the County recently completed its final Phase II Conversion Technology Evaluation Report, which provides a comprehensive study of existing technology suppliers and materials recovery facilities throughout southern California. The County has established a goal of implementing the demonstration project facility by December 2011.

⁴ *Solid Waste Management in Los Angeles County* by Paul Alva, Los Angeles County Department of Public Works, http://ladpw.org/swims/Upload/Solid_Waste_Management_in_LA_County_9417.pdf, accessed March 2010.

⁵ *Mesquite Regional Landfill*, <http://mrlf.org/index.php?pid=21>; accessed December 2010.

⁶ *Rebecca Unger. "Eagle Mountain Landfill Fight Finally Ends." The Desert Trail. August 4, 2010. http://www.hidesertstar.com/articles/2010/08/07/the_desert_trail/news/doc4c59f491c1366207437301.txt. Accessed December 2, 2010.*

⁷ *Southern California Conversion Technologies Demonstration Project*, <http://www.socalconversion.org/projects.html>; accessed March 2010.

The CoIWMP 2008 Annual Report evaluates seven capacity options currently available or may become available in the future to assist the County in meeting the Daily Disposal Demand. The scenarios are considered for a planning period of 15 years between 2008 and 2023. The scenarios reveal that under existing status quo conditions, there is anticipated to be a disposal capacity shortfall by the Year 2014.⁸ However, the 2008 Annual report identifies alternative conversion technologies, expansion and increased use of in-County landfill facilities, increased diversion strategies, and increased use of out of County landfills as methods to meet County disposal needs through 2023.

(b) Local

Following collection, refuse within the City is transported either directly to landfills or to landfills following combustion in the Southeast Resource Recovery Facility (SERRF), a publicly owned solid waste management facility. SERRF applies mass burn technology to reduce the volume of solid waste entering landfills by 80 percent, while concurrently generating electricity for operation of the facility as well as purchase by the Southern California Edison Company (SCE) for use by the City and State. SERRF processes an average of 1,290 tons of municipal solid waste per day with a daily capacity for 1,380 tons. It has processed over 3.5 million tons of solid waste since it first opened and has reduced the volume of solid waste entering landfills by over four million cubic yards.⁹

As illustrated in **Table IV.M.3-1, Disposal Facilities Utilized by the City of Long Beach in 2009**, Long Beach is served by a total of 15 Class III landfills. The Class III landfills and waste-to-energy facilities serving Long Beach can process a total of 88,654 tpd of solid waste and have a remaining total capacity of 670.8 million cubic yards. On an average day, the Class III landfills serving the City of Long Beach dispose of approximately 36,345 tons of waste material. Based upon a generation rate provided by CalRecycle, the project site currently generates approximately 369 pounds (approximately 0.18 tons) of solid waste per day (refer to Table IV.M.3-3 below for calculation). This accounts for approximately 0.0002 percent of the maximum daily capacity $[(0.18 \text{ tons} / 88,654 \text{ tons}) \times 100 = 0.00020 \text{ percent}]$ or approximately 0.0005 percent of the average daily tonnage $[(0.18 \text{ tons} / 36,345 \text{ tons}) \times 100 = 0.00049 \text{ percent}]$ of the Class III landfills serving Long Beach.

(3) Unclassified Landfills

Inert wastes such as soil, concrete, asphalt, and other construction and demolition (C&D) debris are disposed of at the Azusa Land Reclamation County Landfill. As shown in Table IV.M.3-1, this landfill can accommodate up to 6,500 tons per day of inert waste. As also indicated in Table IV.M.3-1, the remaining disposal capacity for the Azusa Land Reclamation County Landfill is estimated at approximately 42.7 million cubic yards.

⁸ Disposal Capacity Shortfall – The amount by which Daily Disposal Demand exceeds the total Daily Available Capacity.

⁹ Los Angeles County Sanitation Districts, Southeast Resource Recovery Facility (SERRF) Brochure, accessed online at: http://www.lacsd.org/about/solid_waste_facilities/serrf/brochure.asp, accessed December 2010.

Table IV.M.3-1

Disposal Facilities Utilized by the City of Long Beach in 2009

Landfill	Maximum Daily Capacity (tpd)	Disposal Tonnage for 2009 (tpy)	Average Daily Tonnage ^a	Estimated Remaining Capacity ^b (million cubic yards)	Estimated Closure Date
Class III Landfills					
Bakersfield Metropolitan Sanitary Landfill	4,500	429,870	1,177.8	35.0	2038
California Street Landfill	N/A ^c	65,262	178.8	6.8	2042
Chiquita Canyon Sanitary Landfill	6,000	688,035	1,885.0	29.3	2019
Colton Sanitary Landfill	3,100	151,608	415.4	2.7	2017
El Sobrante Landfill	16,054	1,853,293	5,077.5	145.5	2045
Frank R. Bowerman Sanitary Landfill	8,500	1,440,066	3,945.4	59.4	2022
Kettleman Hills – B18 Nonhaz Codisposal ^d	N/A	25,678	70.4	N/A	N/A
Lancaster Landfill and Recycling Center	1,700	253,496	694.5	19.1	2012
Mid-Valley Sanitary Landfill	7,500	528,554	1,448.1	67.5	2033
Olinda Alpha Sanitary Landfill	8,000	1,693,832	4,640.6	38.6	2021
Prima Deshecha Sanitary Landfill	4,000	475,622	1,303.1	87.4	2067
Puente Hills Landfill	13,200	2,645,335	7,247.5	35.2	2013
San Timoteo Sanitary Landfill	1,000	130,467	357.4	11.4	2016
Simi Valley Landfill and Recycling Center	3,000	520,671	1,426.5	20.6	2027
Sunshine Canyon City/County Landfill	12,100	2,364,070	6,476.9	112.3	2037
<i>Subtotal</i>	<i>88,654</i>	<i>13,265,859</i>	<i>36,345</i>	<i>670.8</i>	<i>N/A</i>
Waste-to-Energy					
Commerce Refuse-to-Energy Facility	N/A	100,271	274.7	N/A	N/A
Southeast Resource Recovery Facility	N/A	499,015	1,367.2	N/A	N/A
Unclassified Landfills					
Azusa Land Reclamation Co. Landfill	6,500	134,389	368	42.7	2025
Total	95,154	13,999,534	38,355	713.5	N/A

^a No daily tonnage information available. Thus, calculation based on yearly tonnage divided by 365 days.

^b Remaining capacity as of January 2010.

^c Information not available.

^d Kettleman Hills is a Class I, II and III facility.

Source: CalRecycle. <http://www.calrecycle.ca.gov/Profiles/Juris/JurProfile2.asp?RG=C&JURID=267&JUR=Long+Beach>, accessed February 2011.

3. ENVIRONMENTAL IMPACTS

a. Significance Thresholds

A project may have a significant impact regarding solid waste if it would exceed the significance thresholds included in Section XVII, Utilities and Service Systems, in Appendix G of the CEQA *Guidelines*. As such, the proposed project would result in a significant impact regarding solid waste if it would fail to:

1. Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs.
2. Comply with federal, state, and local statutes and regulations related to solid waste.

b. Methodology

The environmental impacts of the proposed project with respect to solid waste are determined by comparing the project's net increase in solid waste to the capacity of solid waste facilities that would serve the project site. In addition, a discussion of recycling programs and design features that would be implemented by the proposed project is provided to determine whether the project would comply with federal, state, and local statutes and regulations related to solid waste.

c. Project Design Features

The proposed project would include recycling bins at appropriate locations to promote recycling of paper, metal, glass, and other recyclable material. In addition, all demolition and construction debris would be hauled to a sorting yard where a minimum of 60 percent of the tonnage would be diverted from landfills.

d. Analysis of Project Impacts

(1) Would the project be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?

(a) Construction

Construction of the proposed project would require demolition of existing buildings, earthwork, as well as the construction of new buildings on the project site. Each of these activities would generate construction and demolition (C&D) waste including but not limited to soil, wood, asphalt, concrete, paper, glass, plastic, metals, and cardboard that would be disposed of in the County's unclassified landfills, which is anticipated to be within the Azusa Land Reclamation County Landfill. This landfill was the only unclassified landfill the City of Long Beach utilized in 2009.¹⁰ Specifically, construction of the proposed project would require the following:

- Export of approximately 271,000 cubic yards of soil for excavation of the site;
- Demolition of 238,826 square feet of existing hotel and 359,035 square feet of other existing site uses; and

¹⁰ The latest profile year available by CalRecycle

- Construction of approximately 582,784 square feet of new residential uses and 239,716 square feet of non residential uses.¹¹

Therefore, in total, demolition and construction required for the proposed project would result in a total of 332,626 tons of C&D waste, as indicated in **Table IV.M.3-2, Estimated C&D Waste Generation for the Project.** As indicated above, the proposed project must comply with the LBMC provisions that require diversion of a minimum of 60 percent of the C&D waste away from landfills. As a result, the proposed project would divert approximately 199,576 tons of C&D waste away from landfills. The location of diverted waste materials will be determined by the waste hauler at the time of construction activities. Therefore, after compliance with the City of Long Beach municipal requirements, the project would dispose of approximately 133,050 tons of C&D waste to an unclassified landfill. Given that the Azusa Land Reclamation Co. Landfill has a maximum daily capacity of 6,500 tpd and an estimated remaining capacity of 42.7 million cubic yards, construction debris generated by the proposed project could be disposed of at this unclassified landfill. Thus, the project would be served by a landfill with sufficient permitted capacity to accommodate the project’s solid waste disposal needs during construction activities. Mitigation Measures M.3-1 and M.3-2 are proposed to provide assurance that construction-related solid waste impacts remain less than significant to the extent feasible.

Table IV.M.3-2

Estimated C&D Waste Generation for the Proposed Project

Debris Type	Quantity	Generation Factor (lbs/unit)^a	Waste Generation (tons)
Earthwork			
Soil Export	271,000 cubic yards	2,100 ^b	284,550
Demolition			
Nonresidential	597,861 square feet	155	46,334
Construction			
Residential	582,784 square feet	4.38	1,276
Nonresidential	239,716 square feet	3.89	466
		TOTAL	332,626

^a Generation factors provided by the United States Environmental Protection Agency, “Characterization of Building-Related Construction and Demolition Debris in the United States,” Table 3 and Tables 3 to 6, June 1998.

^b Based on CalRecycle Conversion Calculation of 2,100 pounds per cubic yard for earth materials.

Source: PCR Services Corporation, 2010.

(b) Operation

The project site is currently developed with a mix of hotel, office, restaurant and nightclub uses. As illustrated in **Table IV.M.3-3, Existing and Proposed Solid Waste Generation for the Project,** development of

¹¹ The estimate of non-residential and residential square footage proposed by the project assumes that Level 1 (Ground Floor) would be non-residential and the mezzanine and Levels 2-11 are residential. Since residential uses have a higher construction debris generation factor than non-residential uses, this estimate provides a conservative analysis of construction debris generated by the project.

Table IV.M.3-3

Existing and Proposed Solid Waste Generation for the Proposed Project

Land Use	Size	Generation Rate ^a	Total (lbs/day)
Existing			
Hotel	156 rooms ^b	2 lbs/room/day	312
Restaurant	2,800 square feet	5 lbs/k.s.f./day	14
Nightclub	5,600 square feet	5 lbs/k.s.f./day	28
Office	2,500 square feet	6 lbs/k.s.f./day	15
		Total	369
Proposed			
Residential	325 units	4 lbs/unit/day	1,300
Hotel	100 rooms	2 lbs/room/day	200
Retail	191,475 s.f.	5 lbs/k.s.f./day	957
Restaurant ^c	25,460 s.f.	5 lbs/k.s.f./day	127
Theater	3,860 s.f.	31.2 lbs/k.s.f./day	120
Science Center	4,175 s.f.	31.2 lbs/k.s.f./day	130
Meeting Space	3,510 s.f.	31.2 lbs/k.s.f./day	110
		Total	2,944
Difference between Existing and Proposed (Net Increase)			2,575

^a Generation factors provided by the CalRecycle website, refer to Estimated Solid Waste Generation Rates. <http://www.calrecycle.ca.gov/WasteChar/WasteGenRates/default.htm>. Accessed December 2010.

^b The hotel includes 240 rooms, but only 156 are currently in operation.

^c The restaurant total includes the 21,092 square foot restaurant and the 4,368 square foot hotel restaurant.

Source: PCR Services Corporation, 2010.

the proposed project would result in a net increase of 2,575 pounds per day (or approximately 1.3 tpd) of solid waste or a total of approximately 475 tons per year. The project's daily solid waste generation represents approximately 0.001 percent of the estimated permitted daily capacity $([1.3 \text{ tons} / 88,654 \text{ tons}] \times 100 = 0.0014 \text{ percent})$ or 0.004 percent of the average daily tonnage $([1.3 \text{ tons} / 36,345 \text{ tons}] \times 100 = 0.0036 \text{ percent})$ for the Class III landfills available to accept solid waste from the project site.¹² It is important to note that this analysis is very conservative in that it does not take into account diversion rates currently achieved by the City of Long Beach as a whole. As described above, the City of Long Beach has one of the highest diversion rates of any large city in the United States, with an estimated 69 percent of the City's trash diverted from disposal through recycling, reuse, and waste reduction programs. Waste diversion for Project is anticipated to be consistent with other similar development within the City and divert approximately 69 percent of trash from landfills based on compliance to standard City practices and regulations described above. Based on this percentage, the proposed project is estimated to generate approximately 798 pounds per day (0.4 tpd) or 146 tons per year of solid waste.

¹² For purposes of this analysis, it is conservatively assumed that all operational waste would be transported to Class III landfills. This provides a worst-case analysis of impacts to Class III landfills. While a small portion of waste materials generated by the project during operation could be disposed of at an unclassified (inert) landfill (i.e., Azusa Land Reclamation County Landfill), which accepts yard trimmings, earth-like waste and other similar materials, such waste would represent a negligible increase in the daily or annual amount of waste disposal at unclassified landfill facilities such that existing intake quantities at the unclassified landfill would not be substantially altered.

As discussed previously, the CoIWMP 2008 Annual Report concludes that under existing status quo conditions, there is anticipated to be a disposal capacity shortfall by the Year 2014. However, the 2008 Annual report identifies alternative conversion technologies, expansion and increased use of in-County landfill facilities, increased diversion strategies, and increased use of out of County landfills as methods to meet County disposal needs through 2023. Additional capacity to accommodate the disposal needs of the County, inclusive of the project, is the responsibility of local, county, and State solid waste management agencies and will become available as these agencies develop 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). With implementation of the landfill improvements described in the 2008 Annual report or by other means as determined appropriate by the local, county, and State solid waste management agencies, the County would be able to provide for its disposal needs through 2023, which would also accommodate the incremental increase in waste generated by the project. It should also be noted that with each subsequent Los Angeles County Countywide Integrated Waste Management Plan Annual Report, the 15-year planning horizon is extended by one year, thereby providing sufficient lead time for the County to address any future shortfalls in landfill capacity.

Based on the above, project-generated waste would not exacerbate the existing shortfall of landfill capacity such that the projected timeline for the County's Class III landfills to reach capacity would be altered. In addition, the project would not generate solid waste at a level that would generate the need for an additional solid waste collection route or require new or substantially expanded recycling or disposal facilities. The available capacity of the existing and/or planned landfills would not be exceeded, and impacts on solid waste generation from project operations would be less than significant. Mitigation Measures M.3-3 and M.3-4 are proposed to provide assurance that operational-related solid waste impacts remain less than significant to the extent feasible.

In conclusion, construction and operation of the project will be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs.

(2) Would the project comply with federal, state, and local statutes and regulations related to solid waste?

The City of Long Beach has reached the 50 percent diversion rate mandated by AB 939. A maximum estimated 2006 diversion rate of 69 percent was reached by the City through refuse management programs within its source reduction, recycling, composting, special waste materials, transformation, policy incentives, facility recovery, and public education components.¹³ The proposed project would include project features to reduce the need for solid waste disposal, including the provision of on-site recycling containers and adequate storage area for such containers. Waste diversion for project is anticipated to be consistent with other similar development within the City and divert approximately 69 percent of trash from landfills based on compliance to standard City practices and regulations. All containers and storage areas would be sized in accordance with the applicable provisions the LBMC, including Sections 8.60.025 and 8.60.020 establish standards and guidelines regarding refuse and recycling receptacles. Based on these considerations, the proposed project would also be consistent with the State of California Solid Waste Reuse and Recycling Access Act of 1991. The project would divert at least 60 percent of all project-related construction and

¹³ *CalRecycle, Diversion Rate Measurement Calculation, Long Beach, accessed online at: <http://www.calrecycle.ca.gov/LGCentral/Tools/mars/DRMCnew.asp?VW=In&R1=V1&ju=267&Yr=2005>, accessed March 2010.*

demolition material consistent with the provisions of Section 18.97.020 of the LBMC and SB 1374 landfill diversion requirements. Overall, the proposed project would not conflict with solid waste regulations, plans, and programs including the solid waste policies and objectives in the County's Summary Plan, Siting Element, as well as the LBMC. Impacts relative to consistency with applicable regulations addressing solid waste would be less than significant.

4. MITIGATION MEASURES

The following mitigation measures are proposed to provide assurance that construction and operation solid waste impacts remain less than significant and that the project would be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs.

a. Construction

Mitigation Measure M.3-1: Prior to the issuance of any demolition or construction permit, the Applicant shall provide a copy of the receipt or contract indicating that the construction contractor shall only contract for waste disposal services with a company that recycles demolition and construction-related wastes. The contract specifying recycled waste service shall be presented to the Development Services Department prior to approval of certificate of occupancy.

Mitigation Measure M.3-2: In order to facilitate on-site separation and recycling of construction related wastes, the construction contractor shall provide temporary waste separation bins on-site during demolition and construction.

b. Operational

Mitigation Measure M.3-3: The proposed project shall include recycling bins at appropriate locations to promote recycling of paper, metal, glass, and other recyclable material. The bins shall be picked up and appropriately recycled as a part of the proposed project's regular trash disposal program.

Mitigation Measure M.3-4: New homeowners/tenants shall be provided with educational materials on the proper management and disposal of household hazardous waste, in accordance with educational materials made available by the County of Los Angeles Department of Public Works.

5. CUMULATIVE IMPACTS

Chapter III of this Draft EIR identifies five related projects that are anticipated to be developed within the vicinity of the project site. It is conservatively assumed that each of these projects would contribute solid waste to the landfills serving the project site. Development of these related projects would generate solid waste during their respective construction periods and on an on-going basis during their operation.

Construction of the proposed project in conjunction with related projects would generate C&D waste and cumulatively increase the need for waste disposal at the County's unclassified landfills. The proposed

project would generate approximately 133,050 tons of C&D waste, following waste diversion, which would be disposed of at the Azusa Land Reclamation Co. Landfill.¹⁴ As stated above, the Azusa Land Reclamation Co. Landfill will have adequate capacity until 2025. As such, future shortage of disposal capacity at unclassified landfills is not expected. Further, related projects would be subject to environmental review on a case-by-case basis and thus, are anticipated to recycle C&D waste to the maximum extent feasible. Based on the above, cumulative solid waste impacts to unclassified landfills due to project construction are concluded to be less than significant, and the project’s contribution to such impacts would not be cumulatively considerable.

The estimated solid waste generation resulting from operation of related projects is shown in **Table IV.M.3 4, Cumulative Solid Waste Generation**. As indicated therein, the solid waste generation for related projects is forecasted to be approximately 969 pounds per day (0.5 tpd) or approximately 183 tons per year.¹⁵ In conjunction with the proposed project, the total cumulative solid waste generation would be approximately 3,544 pounds per day (1.8 tpd) or 657 tons per year. However, the estimate of solid waste generation from related projects does not take into account solid waste reduction measures that would be implemented and does not discount solid waste generation from existing uses that would be removed as part of related projects.

Table IV.M.3-4

Cumulative Solid Waste Generation

Map No. ^a	Land Use	Intensity/ Units ^b	Solid Waste Generation Rate ^c	Total Solid Waste (lbs/day)
1	Tutoring Center	0.7 k.s.f.	7 lbs/k.s.f./day	4.9
2	Retail/Restaurant	23.4 k.s.f.	5 lbs/k.s.f./day	117
3	Retail/Car Wash	17.5 k.s.f.	5 lbs/k.s.f./day	87.5
4	YMCA	8.5 k.s.f.	7 lbs/k.s.f./day	59.5
5	Single Family	55 units	10 lbs/unit/day	550
	Hotel	75 Rooms	2 lbs/room/day	150
Related Projects Total				969
Proposed Project (Net increase over existing conditions)				2,575
Related Projects + Proposed Project				3,544

^a Related Projects Map No. refers to the related projects locations provided in Figure III-1 in Chapter III of this Draft EIR.

^b "k.s.f."- 1,000 square feet

^c Generation factors provided by the CalRecycle website, refer to Estimated Solid Waste Generation Rates. <http://www.calrecycle.ca.gov/WasteChar/WasteGenRates/default.htm>. Accessed December 2010.

Source: PCR Services Corporation, 2010.

The 1.8 tons or 3,544 lbs. of cumulative solid waste generated per day would represent approximately 0.002 percent of the estimated daily capacity $([1.8 \text{ tons} / 88,654 \text{ tons}] \times 100 = 0.0020 \text{ percent})$ or 0.005 percent of

¹⁴ This total is assuming that 60 percent of the C&D waste will be diverted from landfills.

¹⁵ Totals may not add up due to rounding.

the average daily tonnage $([1.8 \text{ tons} / 36,345 \text{ tons}] \times 100 = 0.0049 \text{ percent})$ of the 15 Class III landfills (listed in Table IV.M.3-1) that could potentially accommodate solid waste from the project site. Additional capacity to accommodate the cumulative disposal needs of the proposed project and related projects is the responsibility of local, county, and State solid waste management agencies and may become available as these agencies develop 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 source reduction and recycling requirements established by the local jurisdiction in accordance with AB 939 (i.e., divert 50 percent of the solid waste generated from landfills through waste reduction, recycling, and composting). As with the proposed project, future projects would also be required to participate in recycling programs, thus reducing the amount of solid waste to be disposed of at the landfills described above. Based on these considerations, cumulative impacts regarding solid waste would be less than significant, and the project's contribution to such impacts would not be cumulatively considerable. Nonetheless, implementation of Mitigation Measures M.3-3 and M.3-4 would provide assurance that the project's incremental contribution to cumulative solid waste impacts on a regional level remains less than significant to the extent feasible.

6. LEVEL OF SIGNIFICANCE OF AFTER MITIGATION

The project would be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs during construction activities. Thus, solid waste impacts during construction would be less than significant. Mitigation Measures M.3-1 and M.3-2 are proposed to provide assurance that construction-related solid waste impacts remain less than significant to the extent feasible.

Project-generated waste would not exacerbate the existing shortfall of landfill capacity such that the projected timeline for the County's Class III landfills to reach capacity would be altered. In addition, the project would not generate solid waste at a level that would generate the need for an additional solid waste collection route or require new or substantially expanded recycling or disposal facilities. The available capacity of the existing and/or planned landfills would not be exceeded, and impacts on solid waste generation from project operations would be less than significant. Mitigation Measures M.3-3 and M.3-4 are proposed to provide assurance that operational-related solid waste impacts remain less than significant to the extent feasible.

As the proposed project would comply with all State, regional, and local plans, policies, and regulations relating to solid waste, impacts regarding consistency with the regulatory environment would be less than significant.