IV. Environmental Impact Analysis

L.3 Utilities and Service Systems—Solid Waste

1. Introduction

This section of the Draft EIR provides an analysis of the Project's potential impacts on solid waste facilities. The analysis describes existing solid waste facilities and their associated capacities, estimates the amount of solid waste that would be generated during Project construction and operation, and evaluates whether existing and planned solid waste facilities could accommodate expected Project-generated waste. This analysis is based in part on the *County of Los Angeles Countywide Integrated Waste Management Plan 2016 Annual Report* (2016 Annual Report) prepared by the County of Los Angeles (County) Department of Public Works in September 2017.[1]

2. Environmental Setting

a. Regulatory Setting

The following subsection describes the primary regulatory requirements pertaining to solid waste disposal. For a discussion of regulatory requirements relevant to the use, storage, and disposal of hazardous wastes, refer to Section IV.E, Hazards and Hazardous Materials, of this Draft EIR.

(1) State

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

The California Integrated Waste Management Act of 1989 (AB 939), as amended, was enacted to reduce, recycle, and reuse solid waste generated in the State. AB 939 requires city and county jurisdictions to divert 50 percent of the total waste stream from landfill disposal. AB 939 also requires each city and county to promote source reduction, recycling, and safe disposal or transformation. AB 939 further requires each city and

[1] *County of Los Angeles, Department of Public Works, Countywide Integrated Waste Management Plan 2016 Annual Report. This is the most recent Annual Report available.*

county to conduct a Solid Waste Generation Study and prepare a Source Reduction and Recycling Element to describe how it will reach the diversion goals. Each Source Reduction and Recycling Element contains programs and policies for fulfillment of the AB 939 goals and must be updated annually to account for changing market and infrastructure conditions. As projects and programs are implemented, the waste stream characteristics, the capacities of the current solid waste disposal facilities, and the operational status of those facilities are updated, as appropriate. California cities and counties are required to submit annual reports to the California Department of Resources Recycling and Recovery (CalRecycle) to track their progress toward the AB 939 goals.[2]

In 2008, pursuant to the Per Capita Disposal Measurement System Act (Senate Bill 1016), CalRecycle implemented a new per capita disposal and goal measurement system that changes the emphasis from an estimated diversion measurement to an actual disposal measurement factor and evaluates program implementation efforts.[3,4] As a result, the 50 percent diversion requirement is now measured in terms of per capita disposal expressed as pounds per person per day.

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

The California Solid Waste Reuse and the Recycling Access Act of 1991 (AB 1327) is codified in Public Resources Code Sections 42900–42911. As amended, AB 1327 requires each local jurisdiction to adopt an ordinance requiring commercial, industrial, or institutional building, marina, or residential buildings having five or more living units to provide an adequate storage area for the collection and removal of recyclable materials. The size of these storage areas is to be determined by the appropriate jurisdictions' ordinance. Pursuant to AB 1327, the City of Los Angeles (City) adopted the Space Allocation Ordinance (Ordinance No. 171,687), discussed below.

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[2] *California Public Resources Code, §Section 41821.*

[3] *Senate Bill 1016 codified CalRecycle's historical approach by more explicitly focusing on program implementation, as well as implementing a simplified metric based on per capita disposal and changing the frequency of some reviews. The law now states that the annual per capita disposal rate is not determinative of jurisdiction compliance, but is only one factor among several that CalRecycle will use to evaluate diversion program implementation. Source: CalRecycle website, Local Government Central Reports, CalRecycle Jurisdiction Reviews, www.calrecycle.ca.gov/lgcentral/reporting/biennial.htm, accessed August 5, 2018.*

[4] *CalRecycle website, Local Government Central, Goal Measurement, www.calrecycle.ca.gov/LGCentral/GoalMeasure/Default.htm, accessed August 5, 2018.*

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

Signed in 2002, the Construction and Demolition Waste Materials Diversion Requirements (SB 1374) are codified in Public Resources Code Section 42919. SB 1374 calls for jurisdictions to include in their AB 939 annual report a summary of the progress made in diverting construction and demolition waste. The legislation also required CalRecycle to adopt a model ordinance for diverting 50 to 75 percent of all construction and demolition waste from landfills.

(d) Zero Waste California

Zero Waste California is a state program launched by CalRecycle in 2002 to promote a new vision for the management of solid waste by maximizing existing recycling and reuse efforts, while ensuring that products are designed for the environment and have the potential to be repaired, reused, or recycled. The Zero Waste California program promotes the goals of market development, recycled product procurement, and research and development of new and sustainable technologies.

(e) California Green Building Standards (CALGreen Code)

The 2016 California Green Building Standards Code, referred to as the CALGreen Code, sets standards for new structures to minimize the State's carbon output.[5] California now requires that new buildings reduce water consumption, increase building system efficiencies, divert construction waste from landfills, and install low pollutant-emitting finish materials. Each local jurisdiction still retains the administrative authority to exceed the latest CALGreen standards. The 2016 CALGreen Code went into effect on January 1, 2017.

(f) Assembly Bill 341—California's 75-Percent "Recycling" Goal

California's 75-Percent "Recycling" Goal (AB 341), signed on February 10, 2011, directed that no less than 75 percent of solid waste generated in California be source reduced, recycled, or composted by 2020 and required CalRecycle to provide a report to the Legislature that recommends strategies to achieve the policy goal by January 1, 2014.[6]

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[5] *Building Standards Commission, CALGreen, www.bsc.ca.gov/Home/CALGreen.aspx, accessed August 5, 2018.*

[6] *Source reduction involves activities designed to reduce the volume, mass, or toxicity of products throughout the life cycle. It includes the design and manufacture, use, and disposal of products with minimum toxic content, minimum volume of material, and/or a longer useful life.*

AB 341 also mandated local jurisdictions to implement commercial recycling by July 1, 2012.

(g) Assembly Bill 1826—California Organics Recycling

Assembly Bill 1826 (AB 1826) was signed into law on September 28, 2014 and amended the Public Resources Code to require mandatory recycling of organic waste generated by certain commercial uses, such as restaurants and grocery stores, and multi-family residential dwellings that consist of five or more units.[7,8] Beginning on April 1, 2016, businesses that generate 8 cubic yards or more of organic waste per week must separate food scraps and yard trimmings and arrange for recycling services for that waste in a specified manner. As of January 1, 2017, businesses that generate 4 cubic yards or more of organic waste per week are subject to this requirement. Commencing January 1, 2019, businesses that generate 4 cubic yards or more of commercial solid waste per week also will be required to arrange for organic waste recycling services. CalRecycle may reduce this triggering threshold for organics recycling to 2 cubic yards or more of commercial solid waste per week on or after January 1, 2020.[9]

AB 1826 also requires each local jurisdiction, on and after January 1, 2016, to implement an organic waste recycling program to divert organic waste from the subject businesses, except as specified for rural jurisdictions. Each jurisdiction is required to report to CalRecycle on the progress made in implementing an organic waste recycling program, and CalRecycle is required to assess each jurisdiction's compliance with the AB 1826 requirements. Furthermore, AB 1826 authorizes jurisdictions to charge and collect a fee from organic waste generators to recover the costs incurred in providing organic waste recycling programs.

(2) Regional

(a) Los Angeles County Integrated Waste Management Plan

The Los Angeles County Integrated Waste Management Plan, approved by the County Integrated Waste Management Board on June 23, 1999, is a set of planning documents that provides a regional approach for the management of solid waste through source reduction, recycling and composting, and environmentally safe transformation and

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[7] *Under AB 1826, "organic waste" refers to food waste, green waste, landscape and pruning waste, nonhazardous wood waste, and food-soiled paper waste that is mixed in with food waste.*

[8] *Multi-family dwellings are not required to have a food waste diversion program.*

[9] *CalRecycle, Mandatory Commercial Organics Recycling (MORe), www.calrecycle.ca.gov/recycle/commercial/organics/, accessed August 5, 2018.*

disposal. The County Integrated Waste Management Plan recognizes that landfills will remain an integral part of Los Angeles 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 Integrated Waste Management Plan includes the Countywide Integrated Waste Management Summary Plan (Summary Plan), which was also approved by the County Integrated Waste Management Board 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 the County and associated 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.

In accordance with AB 939, Los Angeles County has included a Countywide Siting Element (CSE) in the County Integrated Waste Management Plan. The CSE 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 CSE was approved by the County Integrated Waste Management Board on June 24, 1998 and provides strategies and establishes siting criteria for evaluating the development of needed disposal and transformation facilities. The County is currently in the process of updating the CSE to reflect the most recent information regarding remaining landfill disposal capacity and the County's current strategy for maintaining adequate disposal capacity. On June 16, 2014, an Initial Study and Notice of Preparation for the Siting Element Revision were released to all responsible agencies and interested parties for review and comment.[10] Once completed, the updated CSE and associated EIR will be released for public review.

To provide an annual progress update of the Summary Plan and CSE, the County Department of Public Works prepares the County Integrated Waste Management Plan Annual Reports. The Annual Reports summarize the changes in solid waste management that have taken place since approval of the Summary Plan and CSE, including updated strategies to meet long-term needs and maintain adequate disposal capacity. In particular, the 2016 Annual Report provides an overview of the status of the County's solid waste

[10] *County of Los Angeles, Department of Public Works, Countywide Integrated Waste Management Plan 2016 Annual Report, September 2017.*

disposal facilities and sets forth strategies for maintaining adequate disposal capacity for a 15-year planning period (i.e., 2016-2031).

As set forth in the 2016 Annual Report, the cumulative need for Class III landfill disposal capacity, estimated at approximately 103.5 million tons in 2029, will exceed the remaining permitted Class III landfill capacity (as of December 31, 2016) of 103.2 million tons. Other constraints that may limit the accessibility of Class III landfill capacity include wasteshed boundaries, geographic barriers, weather, and natural disasters. Therefore, further detailed analysis that incorporates capacity options in addition to existing in-County infrastructure and permit constraints was prepared for the 2016 Annual Report. In assuming that projected waste generation would remain the same, the analysis examined how much daily available capacity from existing Class III landfills is expected to be utilized during each year.[11] In assessing whether or not the daily disposal demand can be met for each year during the 15-year planning period, the analysis evaluates whether a reserve or shortfall would be expected in the Class III Landfill disposal capacity. The seven scenarios that were evaluated include the following:

- Scenario I—Utilization of Permitted In-County Disposal Capacity Only
- Scenario II—Status Quo (Use of existing permitted in-County Class II landfills and transformation facilities, and use of exports to out-of-County landfills)
- Scenario III—Meeting CalRecycle's Statewide Disposal Target of 2.7 pounds per day
- Scenario IV—Proposed In-County Class III Landfill Expansions
- Scenario V—Utilization of Additional Alternative Technology Capacity
- Scenario VI—Increase in Exports to Out-of-County Landfills
- Scenario VII—All Solid Waste Management Options Considered Become Available

The 2016 Annual Report determined that the County would be able to meet the disposal needs of all jurisdictions through the 15-year planning period for Scenarios II through VII. However, as demonstrated by Scenario I, reliance on existing permitted in-County landfill capacity alone may be insufficient in meeting the County's long-term disposal needs. In addition, the 2016 Annual Report concluded that in order to maintain adequate disposal capacity, individual jurisdictions must continue to pursue strategies to

[11] *No new landfills are expected to be permitted in the County during the planning period.*

maximize waste reduction and recycling, expand existing landfills, promote and develop alternative technologies, expand transfer and processing infrastructure, and use out of county disposal, including waste by rail.

(3) Local

A number of City plans and regulations govern solid waste management throughout the City. These plans and regulations include the City of Los Angeles Solid Waste Management Policy Plan and Source Reduction and Recycling Element, City of Los Angeles General Plan Framework Element, City of Los Angeles Solid Resources Infrastructure Strategy Facilities Plan, City of Los Angeles Solid Waste Integrated Resources Plan, the RENEW LA Plan, the Green LA Plan, City of Los Angeles Space Allocation Ordinance, Citywide Construction and Demolition Debris Recycling Ordinance, City-Wide Exclusive Franchise System for Municipal Solid Waste Collection and Handling, City of Los Angeles Green Building Ordinance, and the Los Angeles Municipal Code (LAMC), which includes the Los Angeles Green Building Code. These plans and regulations are described below.

(a) City of Los Angeles Solid Waste Management Policy Plan and Source Reduction and Recycling Element

In 1993, the City of Los Angeles adopted the City of Los Angeles Solid Waste Management Policy Plan that provides long-range policy direction for solid waste management and serves as an umbrella document for the City of Los Angeles Source Reduction and Recycling Element (SRRE). The SRRE describes the Source Reduction and Recycling Program for waste collected by the City of Los Angeles Department of Public Works, Bureau of Sanitation (also referred to as LA Sanitation or LASAN) in conformance with the requirements of AB 939.[12] Pursuant to AB 939, the objective of the City of Los Angeles Solid Waste Management Policy Plan and the SRRE is to promote source reduction or recycling to achieve a minimum diversion of 50 percent of the City's waste by 2000 through the disposal of the remaining waste in local and possibly remote landfills. The City surpassed the state-mandated 50 percent diversion rate for the year 2000.[13] In 1999, Mayor Richard Riordan directed City departments to develop strategies to achieve the citywide recycling goal of 70 percent by 2020. This goal also has been surpassed by the City. The responsibility for documenting waste diversion efforts for the

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[12] *City of Los Angeles, Bureau of Sanitation, City of Los Angeles Solid Waste Planning Background Studies Summary Report, January 2006.*

[13] *State of California, Integrated Waste Management Board, Countywide, Regionwide, and Statewide Jurisdiction Diversion/Disposal Progress Report: County: Los Angeles, Report Year: 2000, Jurisdiction: Los Angeles, www2.calrecycle.ca.gov/LGCentral, accessed August 5, 2018.*

City of Los Angeles lies with the Bureau of Sanitation. As set forth below, more recent plans have been adopted by the City to further its waste reduction and recycling goals.

(b) City of Los Angeles General Plan Framework Element

The City's General Plan Framework Element (adopted in August 2001) provides general guidance regarding land use issues including infrastructure and public services. The General Plan Framework Element includes an Infrastructure and Public Services Chapter, which responds to federal and state mandates to plan for adequate infrastructure in the future. The General Plan Framework Element supports AB 939 and its goals by encouraging "an integrated solid waste management system that maximizes source reduction and materials recovery and minimizes the amount of waste requiring disposal."[14] The General Plan Framework Element addresses many of the programs the City has implemented to divert waste from disposal facilities such as source reduction programs and recycling programs (e.g., Curbside Recycling Program and composting). Furthermore, the General Plan Framework Element states that for these programs to succeed, the City should locate businesses where recyclables can be handled, processed, and/or manufactured to allow a full circle recycling system to develop. The General Plan Framework Element indicates that more transfer facilities will be needed to dispose of waste at remote landfill facilities due to the continuing need for solid waste transfer and disposal facilities, as well as the limited disposal capacity of the landfills in Los Angeles County. Several landfill disposal facilities accessible by truck and waste-by-rail landfill disposal facilities are identified that could be used by the City to meet its disposal needs.[15]

(c) City of Los Angeles Solid Resources Infrastructure Strategy Facilities Plan

The City's Solid Resources Infrastructure Strategy Facilities Plan (Facilities Plan) was prepared in 2000 by the Bureau of Sanitation to address the goals of AB 939 and the policies of the General Plan Framework Element. The following are among the objectives of the Facilities Plan:

- Develop a transfer facility and/or recycling center in the Central Los Angeles Area;

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[14] *City of Los Angeles, Department of City Planning, Citywide General Plan Framework, August 2001, page 9-11.*

[15] *City of Los Angeles, Department of City Planning, Citywide General Plan Framework, August 2001, Chapter 9.*

- Continue to research and develop the use of material recovery facilities to preprocess all residual waste prior to delivery to a disposal site; and

- Develop a comprehensive and continual public education and community outreach program designed to educate and inform the public about the City's solid resources programs and strategies.[16]

The Facilities Plan also documents Bureau of Sanitation's operations, which include collection, recycling, and disposal of solid waste, green waste, bulky items, and other special solid waste materials for single-family residences and multiple-family residences citywide, and management of contracted recycling programs for apartments and commercial and industrial businesses.

(d) RENEW LA Plan

The Recovering Energy, Natural Resources, and Economic Benefit from Waste for Los Angeles (RENEW LA) Plan was adopted by the City Council in February 2006 to facilitate a shift from solid waste disposal to resource recovery.[17] As defined by the RENEW LA Plan and approved by the City Council, the goal of "zero waste" is to reduce, reduce, reuse, recycle, or convert resources that go to disposal in order to achieve an overall diversion level of 90 percent by 2025.[18] The plan focused on combining key elements of existing reduction and recycling programs and infrastructure with new systems and conversion technologies to achieve resource recovery (without combustion) in the form of traditional recyclables, soil amendments, and renewable fuels, chemicals, and energy. The RENEW LA Plan also called for reductions in the quantity of residual materials disposed in landfills and their associated environmental impacts.

The RENEW LA Plan had flexibility built in and was intended to serve as a guide for solid waste and resource management to reach the zero waste goal.[19] As described

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[16] *City of Los Angeles, Department of Public Works, Solid Resources Infrastructure Strategy Facilities Plan, November 2000.*

[17] *Resource recovery involves the selective extraction of disposed materials for a specific next use, such as recycling, composting or energy generation in order to extract the maximum benefits from products, delay the consumption of virgin resources, and reduce the amount of waste generated. Resource recovery differs from the management of waste by using life-cycle analysis (LCA) to offer alternatives to landfill disposal of discarded materials.*

[18] *Councilman Greig Smith, RENEW LA Five-Year Milestone Report, Recovering Energy Natural Resources and Economic Benefit from Waste for Los Angeles, June 2011.*

[19] *Councilman Greig Smith, RENEW LA Five-Year Milestone Report, Recovering Energy Natural Resources and Economic Benefit from Waste for Los Angeles, June 2011.*

below, the RENEW LA Plan zero waste goal was used by the Bureau of Sanitation in developing the Citywide Solid Waste Integrated Resources Plan in 2007.

(e) Green LA Plan

In May 2007, Mayor Antonio Villaraigosa presented the City Council with the Green LA Plan, an action plan to lead the nation in addressing global warming. The overall goal of the Green LA Plan is to reduce greenhouse gas emissions to 35 percent below 1990 levels by 2030. To achieve this target, a number of goals and objectives have been established in various focus areas. One such focus area is solid waste, as landfills are a source of methane, a greenhouse gas produced by decomposing trash. The goals of the Green LA Plan were to shift from solid waste disposal to resource recovery and to recycle 70 percent of solid waste generated within the City by 2015. In 2008, Mayor Villaraigosa accelerated that goal to 75 percent diversion by 2013.[20] To support this effort, the Bureau of Sanitation initiated several programs (further discussed below), including multi-family recycling available to all buildings, construction and demolition recycling requirements, a restaurant food waste recycling program, and a residential food scrap and green waste pilot program.[21] Based on the 2013 Zero Waste Progress Report and using the calculation methodology adopted by the State of California, the City achieved a landfill diversion rate of approximately 76.4 percent, exceeding Mayor Villaraigosa's goal for 2013.[22] As discussed below, Green LA Plan efforts have been aligned with the Citywide Solid Waste Integrated Resources Plan.

(f) City of Los Angeles Solid Waste Integrated Resources Plan (SWIRP)

The City Bureau of Sanitation's Solid Waste Integrated Resources Plan (SWIRP), also known as the "Zero Waste Plan," is a 20-year master plan to reduce solid waste, increase recycling, and manage trash in the City through the year 2030.[23] The SWIRP is the result of a Mayoral directive that is aligned with the City's Green LA program and the

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[20] *City of Los Angeles, Bureau of Sanitation, Fact Sheet: The City's Solid Waste Policies and Programs, 2009.*

[21] *Councilman Greig Smith, RENEW LA Five-Year Milestone Report, Recovering Energy Natural Resources and Economic Benefit from Waste for Los Angeles, June 2011.*

[22] *City of Los Angeles, Bureau of Sanitation, Recycling, www.lacitysan.org/san/faces/home/portal/s-lsh-wwd/s-lsh-wwd-s/s-lsh-wwd-s-r?_adf.ctrl-state=2480tj731_4&_afrLoop=676384185021225#!, accessed August 6, 2018.*

[23] *City of Los Angeles, Bureau of Sanitation, Solid Waste Integrated Resources Plan (SWIRP), www.lacitysan.org/san/faces/home/portal/s-lsh-wwd/s-lsh-wwd-s/s-lsh-wwd-s-zwswirp?_adf.ctrl-state=2480tj731_4&_afrLoop=676816927802076#!, accessed August 6, 2018.*

City Council's RENEW LA plan, both discussed above.[24] This plan encompasses on-going programs and solutions (e.g., blue and green bin recycling, multi-family recycling, restaurant food scrap diversion, alternative technologies, hazardous waste recycling, LAUSD recycling program, etc.) as well as new programs to be implemented during the planning horizon. In May 2008, the stakeholders of the Zero Waste Plan adopted the SWIRP guiding principles to help the City achieve its zero waste goals by 2030.[25] The SWIRP is intended to provide a long-term outline of the policies, programs, infrastructure, regulations, incentives, new "green jobs," technology, and financial strategies necessary to achieve 90-percent diversion of solid waste by 2025.[26,27] The term "zero waste" refers to maximizing recycling, minimizing waste, reducing consumption, and encouraging the use of products with recycled/reused materials. As noted by the City, "zero waste" is a goal and not a categorical imperative; the City is simply seeking to come as close to "zero waste" as possible.

Although the SWIRP has been recognized by the Mayor and City Council, it has not yet been formally adopted. The Energy and the Environment Committee of the City Council is responsible for approving the SWIRP.[28]

(g) Sustainable City pLAn

In April 2015, Mayor Garcetti released the City's first Sustainable City pLAn (pLAn), a directive to address challenges of the environment, economy, and equity in the City of Los Angeles. Among its different focuses, the pLAn includes goals to increase the City's landfill diversion rate to 90 percent by 2025 and 95 percent by 2035 and to increase the proportion of waste products and recyclable commodities productively reused and/or repurposed within LA County to at least 25 percent by 2025 and 50 percent by 2035.[29] In addition to providing specific strategies and priority initiatives (some of which incorporate

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[24] *City of Los Angeles, Bureau of Sanitation, Solid Waste Integrated Resources Plan (SWIRP), www.lacitysan.org/san/faces/home/portal/s-lsh-wwd/s-lsh-wwd-s/s-lsh-wwd-s-zwswirp?_adf.ctrl-state=2480tj731_4&_afrLoop=676816927802076#!, accessed August 6, 2018.*

[25] *City of Los Angeles, Bureau of Sanitation, Solid Waste Integrated Resources Plan—A Zero Waste Master Plan, April 2015.*

[26] *"Green jobs" is the term for work force opportunities created by companies and organizations whose mission is to improve environmental quality.*

[27] *City of Los Angeles, Bureau of Sanitation, Solid Waste Integrated Resources Plan (SWIRP), www.lacitysan.org/san/faces/home/portal/s-lsh-wwd/s-lsh-wwd-s/s-lsh-wwd-s-zwswirp?_adf.ctrl-state=2480tj731_4&_afrLoop=676816927802076#!, accessed August 6, 2018.*

[28] *Based on correspondence with Rena Pereira, Assistant Division Manager of the Solid Resources Commercial Franchise Division, LA Sanitation, May 26, 2017.*

[29] *Mayor's Office of Sustainability, Sustainable City pLAn, April 2015.*

SWIRP initiatives), the pLAn also provided near-term outcomes for 2017 as related to the expansion of a local organic-waste collection program, designation of a site and parameters for an anaerobic digestion facility with at least 50 tons of capacity, and implementation of a waste franchise system.

In March 2017, the pLAn's Second Annual Report for 2016-2017 was released with updates regarding the City's progress on 2017 and 2025 outcomes. With the City's Central L.A. Recycling and Transfer station chosen to process 150 tons of commercial food waste per day, an anaerobic digestion facility may be expected to be operation at the Hyperion Water Reclamation Plant in 2020. In addition, as discussed below, recycLA has been implemented in order to reach an 80-percent diversion rate by 2020 and is expected to increase the recycling rate to 90 percent by 2025.[30] Furthermore, as the City has begun an effort to collect "green bin" organics from food service establishments, the Bureau of Sanitation is expanding its capacity to donate edible foods. As such, while the City's most current landfill diversion rate has been determined to be 76.4 percent, the Bureau of Sanitation intends to conduct a comprehensive waste characterization study by 2019 to identify areas where the City can improve waste diversion.[31]

(h) City of Los Angeles Space Allocation Ordinance

Pursuant to the California Solid Waste Reuse and the Recycling Access Act of 1991 (AB 1327), the City enacted the Space Allocation Ordinance (Ordinance No. 171,687) on August 13, 1997, which is incorporated in various sections of the LAMC. The Space Allocation Ordinance requires the provision of an adequate recycling area or room for collecting and loading recyclable materials for all new projects, all existing multi-family residential projects of four or more units where the addition of floor area is 25 percent or more, and all other existing development projects where the addition of floor area is 30 percent or more.

(i) Citywide Construction and Demolition Debris Recycling Ordinance

On March 5, 2010, the City Council approved the Citywide Construction and Demolition Debris Recycling Ordinance (Ordinance No. 181,519) that requires the Bureau of Sanitation to ensure that all mixed construction and demolition waste generated within

[30] *Mayor's Office of Sustainability, Sustainable City pLAn 2nd Annual Report 2016–2017, March 2017.*

[31] *Mayor's Office of Sustainability, Sustainable City pLAn 2nd Annual Report 2016–2017, March 2017.*

City limits be taken to a City-certified construction and demolition waste processor. The ordinance became effective in January 2011.[32]

(j) recycLA—City-Wide Exclusive Franchise System for Municipal Solid Waste Collection and Handling

As discussed above, the recycLA program has now been implemented in order to reach an 80-percent diversion rate by 2020. Moreover, it is expected to increase the recycling rate to 90 percent by 2025.[33] As part of the program, solid waste collection, management, and disposal in the City is handled both by Bureau of Sanitation crews and by various permitted private solid waste haulers. The City provides solid waste collection, recycling, and green waste collection services primarily to single-family uses and multi-family uses with four units or less. Private solid waste haulers collect from most multi-family residential uses with more than four units and commercial uses based on an open permit system. Permitted waste haulers must obtain an annual permit, submit an annual report, and pay quarterly fees. However, unlike the Bureau of Sanitation, private waste haulers are not required to provide recycling services, operate clean fuel vehicles, offer similar costs for similar services, or reduce vehicle miles traveled. Thus, the existing open permit system limits the ability of the City to address compliance with state environmental mandates and the City's waste diversion goals. Although the City has obtained a 76-percent solid waste diversion rate as identified in the 2013 Zero Waste Progress Report (the most recent data available), nearly three million tons of solid waste from the City are still disposed in landfills annually, nearly 70 percent of which is comprised of waste collected by private waste haulers from multi-family residential and commercial customers.[34]

To respond to these challenges, and in response to City Council directive, the Bureau of Sanitation established a public-private partnership in the form of an Exclusive Franchise System for municipal solid waste collection and handling services for multi-family residential uses of five units or more and commercial, industrial, and institutional uses serviced by private solid waste haulers. The Exclusive Franchise System establishes a number of franchise collection zones in which a single franchised waste hauler may collect, manage, and dispose solid waste from both commercial and multi-family residential

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[32] *City of Los Angeles, Bureau of Sanitation, Construction and Demolition Recycling, www.lacitysan.org/san/faces/wcnav_externalId/s-lsh-wwd-s-r-cdr?_adf.ctrl-state=s2ljriqzq_70&_afrLoop=18847361971932160#!, accessed August 7, 2018.*

[33] *Mayor's Office of Sustainability, Sustainable City pLAn 2nd Annual Report 2016–2017, March 2017.*

[34] *City of Los Angeles, Bureau of Sanitation, Final Implementation Plan for Exclusive Commercial and Multifamily Franchise Hauling System, April 2013.*

properties. The Exclusive Franchise System Ordinance (Ordinance No. 182,986) was adopted by City Council on April 8, 2014.

Under this program, now called recycLA (formerly known as Zero Waste LA), 11 designated service zones are now being served by designated franchise service providers.[35] The new system replaces the City's former open market collection and handling system for commercial and industrial businesses, as well as large multi-family buildings. Among other requirements, the City mandates maximum annual disposal levels and specific diversion requirements for each franchise zone to promote solid waste diversion from landfills in an effort to meet the City's zero waste goals.

(k) City of Los Angeles Green Building Program

In 2008, Mayor Villaraigosa, in partnership with the City Council, amended LAMC Chapter I by adding Sections 16.10 and 16.11 to establish the City's Green Building Program. The Green Building Program created a series of requirements and incentives for developers to meet the U.S. Green Building Council's Leadership in Energy and Environmental Design (LEED®) standards. The purposes of the Green Building Program were to reduce the use of natural resources, create healthier living environments, and minimize the negative impacts of development on local, regional, and global ecosystems. One of the key areas addressed by the Green Building Program concerned materials reuse and the use of recycled materials, both of which reduce the amount of solid waste.

City Ordinance 181,479 approved the expiration of LAMC Sections 16.10 and 16.11 on December 31, 2010 in order to allow the City to facilitate green building requirements and process cases under the California Green Building Standards Code, which took effect on January 1, 2011.[36]

(l) City of Los Angeles Green Building Ordinance

On December 17, 2013, the Los Angeles City Council approved Ordinance No. 182,849, which amended LAMC Chapter IX, Article 9 to reflect local administrative changes and incorporate by reference portions of the 2013 CALGreen Code (Part 11, Title 24 of the California Code of Regulations). The amended Article 9 is referred to as the "Los Angeles Green Building Code." Currently, Projects filed on or after January 1, 2017, must comply with the Los Angeles Green Building Code as amended to comply with various provisions of the 2016 CALGreen Code.

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[35] *City of Los Angeles, Bureau of Sanitation, recycLA Service Map.*

[36] *City of Los Angeles, Ordinance 181,749, approved December 15, 2010.*

(m) City of Los Angeles Commercial Organics Recycling

Prior to the implementation of AB 1826, the Bureau of Sanitation collected and recycled green waste from single-family homes and multi-family units (four units or less) as part of the Citywide Curbside Green Waste Program. The Bureau of Sanitation issues green containers for the collection of yard trimmings, grass clippings, fruits and vegetables, and leaves and branches.[37] As AB 1826 now requires businesses that generate eight cubic yards of organics waste per week to have an organics recycling service in place, the City has adopted the Sustainable City pLAn (described above) and the recycLA waste franchise system to ensure compliance.

As discussed above, in implementation of the pLAn and through recycLA, the City has started collecting organics from food service establishment in green containers.[38] In 2017, the City Board of Public Works also approved the establishment of a Zero Food Waste Task Force, which consists of members of LASAN, the Offices of the Mayor and City Council, Homeless Services, and community-based organizations that focus on food recovery, composting, and recycling.[39] The Zero Food Waste Task Force will work in conjunction with the recycLA program to reduce food waste transport to landfills and comply with AB 1826. In addition, LASAN and Los Angeles World Airports have created an Organics Waste Recycling Pilot Program at Los Angeles International Airport.[40] From this pilot program, food waste will be collected at Terminals 7 and 8 and recycled, converted into renewable natural gas, and used as fuel. Residual solid and liquid byproducts will be made into beneficially reusable products such as soil amendments.

b. Existing Conditions

Demand for landfill capacity is continually evaluated by the County through preparation of the County Integrated Waste Management Plan Annual Reports. The analysis herein is based in part on the Countywide Integrated Waste Management Plan 2016 Annual Report (the most recent Annual Report available), which was completed by the County Department of Public Works in September 2017.

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[37] *City of Los Angeles, Bureau of Sanitation, Green Bin Recycling, www.lacitysan.org/san/faces/home/portal/s-lsh-wwd/s-lsh-wwd-s/s-lsh-wwd-s-r/s-lsh-wwd-s-r-rygb?_adf.ctrl-state=rvdbyu6cp_1082&_afrLoop=661717853077193#!, accessed August 6, 2018.*

[38] *Mayor's Office of Sustainability, Sustainable City pLAn 2nd Annual Report 2016–2017, March 2017.*

[39] *City of Los Angeles, Department of Public Works, News, Los Angeles Board of Public Works Votes to Establish Zero Food Waste Task Force, http://dpw.lacity.org/blog/los-angeles-board-public-works-votes-establish-zero-food-waste-task-force, accessed August 6, 2018.*

[40] *City of Los Angeles, Department of Public Works, News, LA Sanitation and Los Angeles International Airport Team Up for Organics Waste Recycling Pilot Project, http://dpw.lacity.org/blog/la-sanitation-and-los-angeles-international-airport-team-organics-waste-recycling-pilot-project, accessed August 6, 2018.*

Based on the 2016 Annual Report, provided below is a discussion of the County's waste disposal at in- and out-of-County landfills and transformation facilities, existing landfill capacity data, and an overview of various technologies in use to reduce solid waste disposal.[41]

(1) Solid Waste Generation and Disposal in the County of Los Angeles

(a) In-County Landfills

Landfills within the County are categorized as either Class III or inert waste landfills. Non-hazardous municipal solid waste is disposed of in Class III landfills, while inert wastes, such as construction waste, yard trimmings, and earth-like waste, are disposed of in inert waste landfills.[42] Ten Class III landfills and one permitted inert waste landfill with solid waste facility permits are located within the County.[43] Figure IV.L.3-1 on page IV.L.3-17 illustrates the locations of County landfills in relation to the Project Site.

(i) Class III Landfills

As shown in Table IV.L.3-1 on page IV.L.3-18, based on the information provided in the 2016 Annual Report, the remaining disposal capacity for the County's Class III landfills is estimated at approximately 103.18 million tons.[44] In 2016, approximately 5.197 million tons of solid waste were disposed of at the County's Class III landfills. In addition, approximately 0.528 million tons of solid waste were disposed of at County transformation facilities in 2016.[45] Assuming a Countywide diversion rate of 65 percent for 2016 and based on total disposal of 9.82 million tons (excluding inert waste and imports), the 2016 Annual Report estimated that approximately 28.05 million tons of solid waste was generated within the County in 2016.

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[41] *A transformation facility is a facility whose principal function is to convert, combust, or otherwise process solid waste by incineration, pyrolysis, destructive distillation, gasification, or to chemically or biologically process solid waste for the purpose of volume reduction, synthetic fuel production, or energy recovery. Transformation facilities do not include biomass conversion or composting facilities. CalRecycle, Glossary of Terms, www.calrecycle.ca.gov/lgcentral/glossary/, accessed on August 6, 2018.*

[42] *Inert waste is waste which is neither chemically or biologically reactive and will not decompose. Examples of this are sand and concrete.*

[43] *County of Los Angeles, Department of Public Works, Countywide Integrated Waste Management Plan 2016 Annual Report, September 2017.*

[44] *This total excludes the estimated remaining capacity at the Puente Hills Landfill, which closed on October 31, 2013.*

[45] *County of Los Angeles, Department of Public Works, Los Angeles County Integrated Waste Management Plan 2016 Annual Report, September 2017.*

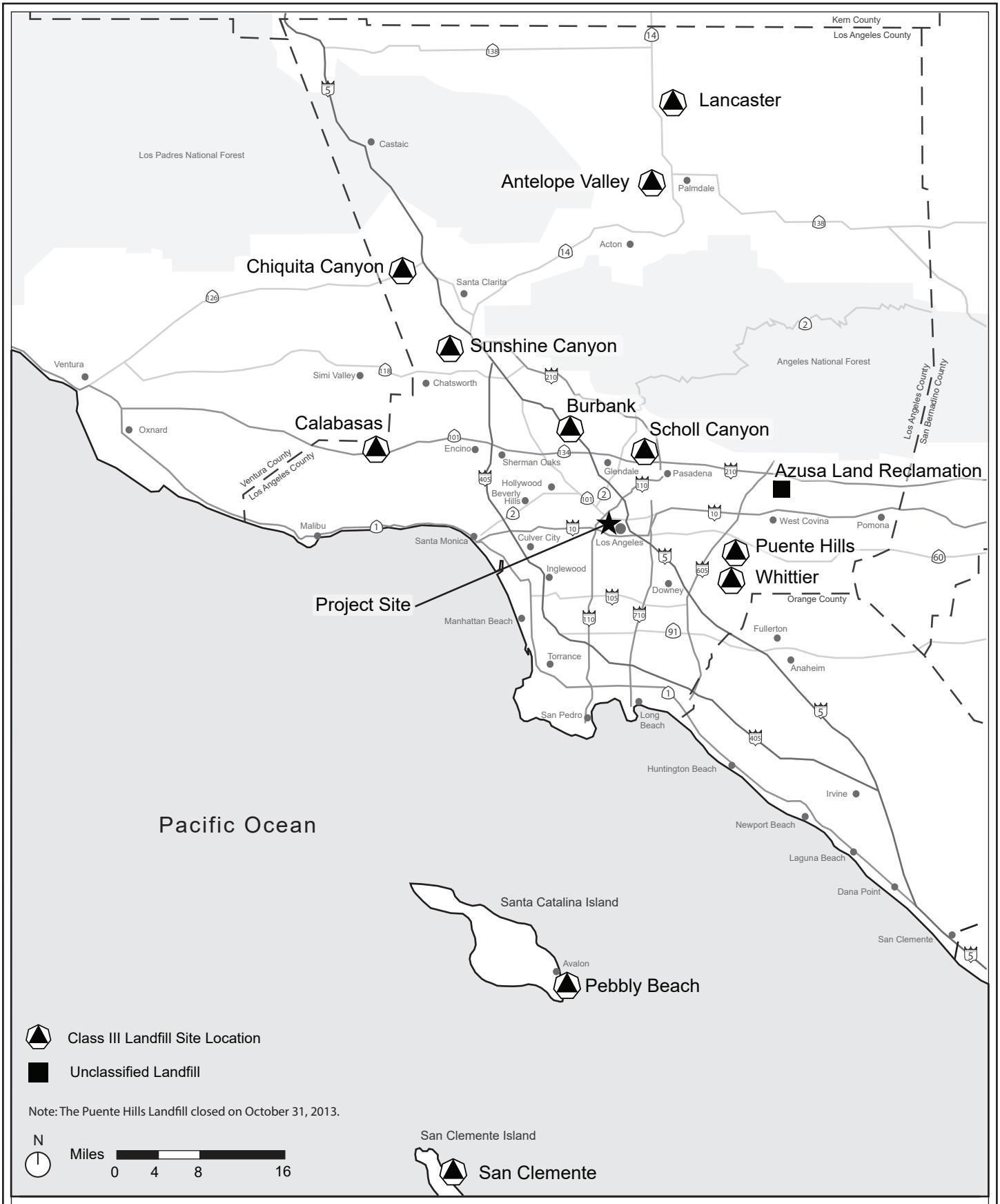

Figure IV.L.3-1
County of Los Angeles Landfills

Source: Google Earth, 2014.

Table IV.L.3-1
Solid Waste Disposal and Estimated Remaining Capacity for County of Los Angeles Landfills

	Location	2016 Total Disposal (million tons)[a]	Estimated Remaining Permitted Capacity as of 12/31/16 (million tons)[b]
Class III Landfills			
Antelope Valley[c]	Palmdale	0.494	12.89
Burbank[d]	Burbank	0.033	2.71
Calabasas[e]	Unincorporated	0.297	5.95
Chiquita Canyon[f]	Unincorporated	1.418	—
Lancaster	Unincorporated	0.172	10.45
Pebbly Beach[g]	Unincorporated	0.004	0.07
San Clemente Island[h]	San Clemente Island	0.0006	0.04
Scholl Canyon[i]	Glendale/ Unincorporated	0.350	4.08
Sunshine Canyon City/County	Los Angeles/ Unincorporated	2.339	62.11
Whittier (Savage Canyon)[j]	Whittier	0.091	4.89
Class III Total Overall		**5.197**	**103.18**
Class III Total Open to City of Los Angeles		4.423	**85.45**
Permitted Inert Waste Landfills			
Azusa Land Reclamation[k]	Azusa	0.369	56.34
Permitted Inert Total Overall		0.369	56.34

Class III landfills open to the City of Los Angeles are highlighted in gray within the table.

[a] *Disposal quantities are based on actual tonnages reported by owners/operators of permitted solid waste disposal facilities to the Los Angeles County Department of Public Works' Solid Waste Information Management System.*

[b] *Estimated Remaining Permitted Capacity is based on landfill owner/operator's response in a written survey conducted by the Los Angeles County Department of Public Works in May 2017, as well as site-specific permit criteria established by local land use agencies, Local Enforcement Agencies, CalRecycle, California Regional Water Quality Control Board, and the South Coast Air Quality Management District.*

[c] *The City of Palmdale approved the expansion and combined Antelope Valley Landfills #1 and #2 on September 19, 2011.*

[d] *Limited to the City of Burbank use only.*

[e] *Limited to Calabasas Wasteshed, as defined by Los Angeles County Ordinance No. 91-0003, which is composed of the incorporated cities of Hidden Hills, Agoura Hills, Westlake Village, and Thousand Oaks; that portion of the City of Los Angeles bordered by the northerly line of Township 2 North on the north, Interstate Highway 405 on the east, Sunset Boulevard and the Pacific Ocean on the south, and the City boundary on the west; and certain unincorporated areas in the Counties of Los Angeles and Ventura.*

[f] *Expansion approved in June 2017 for 30 years or 60 million tons, whichever occurs first. This expansion is not reflected in the remaining disposal capacity data. The Chiquita Canyon Landfill also has the capacity to receive inert waste. Source: County of Los Angeles Board of Supervisors, Statement of Proceedings for the Regular Meeting of the Board of Supervisors of the County of Los Angeles, June 27,*

Table IV.L.3-1 (Continued)
Table IV.L.3-1
Solid Waste Disposal and Estimated Remaining Capacity for County of Los Angeles Landfills

	Location	2016 Total Disposal (million tons)[a]	Estimated Remaining Permitted Capacity as of 12/31/16 (million tons)[b]

2017.

[g] *Land Use Permit (LUP) expires July 29, 2028.*

[h] *Landfill owned and operated by the U.S. Navy.*

[i] *Limited to Scholl Canyon Wasteshed as defined by City of Glendale Ordinance No. 4780, which is defined as County incorporated cities of Glendale, La Canada Flintridge, Pasadena, South Pasadena, San Marino, and Sierra Madre; County unincorporated communities known as Altadena, La Crescenta, Montrose; unincorporated area bordered by the cities of San Gabriel, Rosemead, Temple City, Arcadia, and Pasadena; and the unincorporated area immediately to the north of the City of San Marino bordered by the City of Pasadena on the west, north and east sides.*

[j] *Limited to use by the City of Whittier and waste haulers contracted with the City of Whittier.*

[k] *Azusa Land Reclamation is the only permitted Inert Waste Landfill in the County that has a full solid waste facility permit.*

Source: Eyestone Environmental, 2017, based on information from County of Los Angeles, Department of Public Works, Los Angeles County Integrated Waste Management Plan 2016 Annual Report, September 2017, Appendix E-2 Table 1.

Of the Class III landfill capacity remaining in the County of Los Angeles, approximately 85.45 million tons are available to the City of Los Angeles.[46] As landfills operate in a free-enterprise system, their operating funds and profits are obtained by collecting disposal fees from the haulers on a per ton basis. Landfill capacity is regulated primarily through the amount of solid waste that each particular facility is permitted to collect on a daily basis relative to its capacity.

As summarized above, the 2016 Annual Report indicates that the countywide cumulative need for Class III landfill disposal capacity within the next 15 years (i.e., 2031) will exceed the 2016 remaining permitted Class III landfill capacity of 103.18 million tons. Constraints that also may limit the accessibility of Class III landfill capacity include wasteshed boundaries, geographic barriers, weather, and natural disasters. Therefore, the 2016 Annual Report evaluated seven scenarios and determined that the County would be able to meet the disposal needs of all jurisdictions through the 15-year planning period under six of the scenarios. The County would not be able to meet the disposal needs of all

[46] *This total excludes Class III landfills not open to the City of Los Angeles for disposal (i.e., Scholl Canyon, Whittier, Burbank, Pebbly Beach, and San Clemente). In addition, total excludes the Calabasas Landfill, as its wasteshed does not include the Project Site. Furthermore, the total excludes the recently approved expansion of Chiquita Canyon Landfill, which would also potentially receive inert waste from the Project.*

jurisdictions through the 15-year planning period under Scenario I, which considers only the utilization of permitted in-County disposal capacity. The 2016 Annual Report also concluded that in order to maintain adequate disposal capacity, individual jurisdictions must continue to pursue strategies to maximize waste reduction and recycling, expand existing landfills, promote and develop alternative technologies, expand transfer and processing infrastructure, and use out of county disposal, including waste by rail.

(ii) Permitted Inert Waste Landfill

As of 2016, Azusa Land Reclamation is the only permitted Inert Waste Landfill in the County that has a full solid waste facility permit.[47] Azusa Land Reclamation does not face capacity issues. As shown in Table IV.L.3-1 on page IV.L.3-18, the remaining disposal capacity for Azusa Land Reclamation is estimated at approximately 56.34 million tons. In 2016, approximately 0.369 million tons of inert waste (e.g., soil, concrete, asphalt, and other construction and demolition debris) were disposed of at this landfill. Given the remaining permitted capacity and based on the average disposal rate of 1,183 tons per day (based on 312 days of disposal per year) in 2016, this capacity would be exhausted in 153 years.[48] Thus, the permitted Inert Waste Landfill serving the County is anticipated to have adequate long-term capacity.

(iii) Inert Debris Facilities

Inert debris facilities include Inert Debris Engineered Fill Operations (IDEFO) and other facilities that process inert waste and other construction and demolition waste. In 2016, inert debris facilities (excluding Azusa Land Reclamation) collectively handled nearly 2.13 million tons, or approximately 1.70 million cubic yards, of material in the County.[49] According to the 2016 Annual Report, the Manning Pit facility located in Irwindale is an inert debris disposal site within the County. However, no capacity data is currently available for the Manning Pit, as the facility was unclassified only as of December 31, 2016.[50] In addition, expansion of Chiquita Canyon Landfill was approved in June 2017 for 30 years or 60 million tons, whichever occurs first. The Chiquita Canyon Landfill also has the capacity to receive inert waste.

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[47] *County of Los Angeles, Department of Public Works, Los Angeles County Integrated Waste Management Plan 2016 Annual Report, September 2017.*

[48] *County of Los Angeles, Department of Public Works, Los Angeles County Integrated Waste Management Plan 2016 Annual Report, September 2017.*

[49] *County of Los Angeles, Department of Public Works, Los Angeles County Integrated Waste Management Plan 2016 Annual Report, September 2017.*

[50] *County of Los Angeles, Department of Public Works, Los Angeles County Integrated Waste Management Plan 2016 Annual Report, September 2017.*

(b) Out-of-County Landfills

Solid waste disposal at out-of-County facilities has increased in recent years. As shown in Table IV.L.3-2 on page IV.L.3-22, in 2016 (the most recent year for which data are available), approximately 13,289 tons per day of County solid waste was disposed at out-of-County landfills.[51]

As shown in Table IV.L.3-2, waste-by-rail (WBR) has the potential to create substantial solid waste disposal capacity. WBR systems allow the County to transport waste via existing railways to remote out-of-County disposal facilities. They involve the collection of recyclable waste at materials recovery facilities and the loading of remaining non-hazardous wastes into rail-ready shipping containers. These containers are delivered by truck to local rail yard loading facilities where they are then transported to remote landfills designed and permitted to receive waste via rail. One WBR landfill that may become available for use by the County is the Mesquite Regional Landfill in Imperial County, located approximately 210 miles east of Downtown Los Angeles, along the Union Pacific Railroad. The Sanitation Districts of Los Angeles County completed acquisition of the landfill in 2002 and completed construction of all infrastructure in December 2008. This landfill is permitted to accept up to 20,000 tons per day with a total disposal capacity for 660 million tons of solid waste, which is equivalent to a lifespan of nearly 109 years.[52] This landfill is not currently operational.

(c) Transformation Facilities

Per California Code of Regulations Title 14, Section 18720, a transformation facility's principal function is to convert, combust, or otherwise process solid waste by incineration, pyrolysis, distillation, gasification, or to chemically or biologically process solid waste for the purpose of volume reduction, synthetic fuel production, or energy recover. Transformation facilities do not include biomass conversion or composting facilities. There are two solid waste transformation facilities within Los Angeles County that convert, combust, or otherwise process solid waste for the purpose of energy recovery. The Commerce Refuse to Energy Facility processed approximately 0.109 million tons of solid waste in 2016 and has an available average daily capacity of 400 tons per day.[53] The

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[51] *County of Los Angeles, Department of Public Works, Los Angeles County Integrated Waste Management Plan 2016 Annual Report, September 2017, Appendix E-2 Table 3.*

[52] *County of Los Angeles, Department of Public Works, Los Angeles County Integrated Waste Management Plan 2016 Annual Report, September 2017.*

[53] *County of Los Angeles, Department of Public Works, Los Angeles County Integrated Waste Management Plan 2016 Annual Report, September 2017, Appendix E-2 Table 1.*

Table IV.L.3-2
Solid Waste Disposal and Estimated Remaining Capacity for Out-of-County Landfills

Facility Location Owner/Operator	Rail Access	Distance from Downtown Los Angeles	2016 Average Daily Disposal Rate (tpd-6)	2016 Average Disposal from Los Angeles County[a,b] (tpd-6)	Permitted Daily Disposal (tpd)	Remaining Permitted Disposal Capacity[c] (million tons)
Mesquite Regional Landfill[d] Imperial County County Sanitation District No. 2 of Los Angeles County	Yes	210 miles	—	—	20,000	660
H.M. Holloway Landfill, Inc. Kern County Holloway Environmental, LLC.	Yes	156 miles	357	202	2,000	4
Frank R. Bowerman Sanitary Landfill[e] Orange County O.C. Waste and Recycling	No	45 miles	6,865	1,918	11,500	107
Olinda Alpha Sanitary Landfill[e,f] Orange County O.C. Waste and Recycling	No	30 miles	6,891	3,079	8,000	19
Prima Deshecha Sanitary Landfill[e] Orange County O.C. Waste and Recycling	No	60 miles	867	248	4,000	78
El Sobrante Landfill Riverside County USA Waste Services of California, Inc.	No	60 miles	8,503	3,875	16,054	141
Mid-Valley Sanitary Landfill San Bernardino County San Bernardino County Solid Waste Management Division	No	53 miles	3,061	1,950	7,500	40
San Timoteo Sanitary Landfill San Bernardino County San Bernardino County Solid Waste Management Division	No	67 miles	878	449	2,000	7

Table IV.L.3-2 (Continued)
Solid Waste Disposal and Estimated Remaining Capacity for Out-of-County Landfills

Facility Location Owner/Operator	Rail Access	Distance from Downtown Los Angeles	2016 Average Daily Disposal Rate (tpd-6)	2016 Average Disposal from Los Angeles County[a,b] (tpd-6)	Permitted Daily Disposal (tpd)	Remaining Permitted Disposal Capacity[c] (million tons)
Simi Valley Landfill & Recycling Center Ventura County Waste Management of California, Inc.	No	50 miles	2,933	1,568	6,000	52
Total			**30,355**	**13,289**	**77,054**	**1,108**

tpd = tons per day

tpd-6 = tons per day based on 6 operating days a week, 312 days per year.

— = data is not provided or available, according to 2016 Annual Report.

[a] *Estimated quantity based on the data provided by the Counties in the Solid Waste Information Management System (SWIMS) and/or the Disposal Reporting System.*

[b] *Waste exported to other out-of-County landfills accounts for another 203 tons per day. Total waste exported in 2016 was approximately 13,492 tons per day.*

[c] *Estimated quantity provided by landfill operators in tons, otherwise a conversion factor of 1,200 pounds per cubic yard was used.*

[d] *The Mesquite Regional Landfill (MRL) is not yet operational. When operational, MRL will be permitted to reserve up to 1,000 tpd of available capacity for Imperial County, and up to 4,000 tpd may be transported by truck haul. The operation of the MRL and waste by rail system (WBR) is entirely dependent on the availability of in-county and near-county disposal capacity, diversion from landfills and the cost of disposal. It is assumed that when the MRL/WBR disposal capacity is needed and when the tipping fees make MRL/WBR economically viable, then the system may begin operation.*

[e] *The County of Orange has three import waste agreements with waste hauling companies to import waste into Orange County. The County Sanitations Districts and the County of Orange have extended the import waste agreement allowing the County Sanitation Districts to deliver solid waste to the County of Orange's disposal system until June 30, 2025.*

[f] *Olinda Alpha Sanitary Landfill is permitted to accept a maximum of 10,000 tons/day for 36 days out of the year.*

Source: County of Los Angeles, Department of Public Works, Los Angeles County Integrated Waste Management Plan 2016 Annual Report, September 2017, Appendix E-2 Table 3.

Southeast Resource Recovery Facility, located in the City of Long Beach, processed approximately 0.419 million tons of solid waste in 2016 and has an available average daily capacity of 1,370 tons per day.[54] It is expected that these two facilities will continue to operate at their current permitted capacities through 2031. The owners and operators of these facilities have indicated that there are no plans to increase the permitted daily capacity at either facility.[55]

(d) Use of Conversion Technologies

The County is exploring the use of conversion technologies to reduce future disposal needs, as well as address global climate change. These state-of-the-art technologies encompass a wide variety of processes that convert normal household trash into renewable energy, biofuels, and other useful products in an environmentally beneficial way. The Southern California Conversion Technology Demonstration Project is an initiative of the County.[56] Conversion technologies include a variety of thermal, chemical and biological processes that break down solid waste into usable resources, such as ethanol, biodiesel, and other green fuels.[57]

The County Department of Public Works chairs the County Integrated Waste Management Task Force's Alternative Technology Advisory Subcommittee, which facilitates the development of conversion technology projects in Southern California. One such project is the anaerobic digestion system at the CR&R Environmental Services facility in the City of Perris. This system, which broke ground in 2014 and is now operational, produces renewable natural gas from organic waste.[58,59] Another project involves the anaerobic digesters at the Joint Water Pollution Control Plant in the City of Carson. This particular system ultimately produces electricity from methane, which is converted from food waste with sewage sludge. That project is expected to expand into a commercial-

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[54] *County of Los Angeles, Department of Public Works, Los Angeles County Integrated Waste Management Plan 2016 Annual Report, September 2017, Appendix E-2 Table 1.*

[55] *County of Los Angeles, Department of Public Works, Los Angeles County Integrated Waste Management Plan 2016 Annual Report, September 2017.*

[56] *Southern California Conversion Technology, About Us, http://dpw.lacounty.gov/epd/SoCalConversion/About, accessed August 7, 2018.*

[57] *Southern California Conversion Technology, About: Why Conversion Technologies?, http://dpw.lacounty.gov/epd/SoCalConversion/About/WhyConversionTechnologies, accessed August 7, 2018.*

[58] *County of Los Angeles, Department of Public Works, Board Motion of April 20, 2010, Item No. 44, Conversion Technologies in Los Angeles County Six Month Status Update: May Through October 2014, October 22, 2014.*

[59] *CR&R Environmental Services, Anaerobic Digestion, http://crrwasteservices.com/sustainability/anaerobic-digestion/, accessed August 7, 2018.*

scale anaerobic digestion facility after a consistent food waste supply is secured.[60] An additional project was initiated when the County Sheriff's Department requested assistance from the County Department of Public Works to research a composting system to manage organic waste at Pitchess Detention Center, a jail facility in the City of Castaic. This could become one of the County's first commercial-scale organic waste anaerobic digestion facilities and would help the County reach waste diversion goals and generate biogas for low carbon electricity, heat, and fuel. Furthermore, this facility could be used to manage food waste from the jail facility, other County departments, and surrounding unincorporated areas. Currently, the County Department of Public Works is preparing the request for qualifications and proposals with the bidding option for public or private ownership.[61] With such efforts and similar programs and projects, the County is on track to achieve its next milestone of 200 tons per day in-County waste conversion capacity by 2020.[62]

(e) Class I Landfills

Hazardous wastes are disposed of at Class I landfills. The closest Class I landfill to the Project Site is the Buttonwillow Landfill located in Kern County, approximately 123 miles northwest of the Project Site. Buttonwillow is a fully permitted hazardous waste facility, permitted by various regulatory agencies in the State of California to receive, store, treat, and landfill a variety of hazardous and non-hazardous waste streams. This facility is capable of managing a large number of Resource Conservation and Recovery Act (RCRA) hazardous wastes, California hazardous waste, and non-hazardous waste for stabilization treatment, solidification, and landfill. The treatment methods utilized at this facility typically reduce the toxicity of waste materials and make it suitable for disposal. Buttonwillow has a permitted landfill capacity in excess of 10 million cubic yards and serves a wide variety of industrial customers throughout California.[63]

Hazardous wastes may also be disposed of at Kettleman Hills Facility, a Class I landfill located in Kings County, approximately 173 miles northwest of the Project Site. The Kettleman Hills Facility is permitted to accept most types of hazardous wastes as defined by the U.S. Environmental Protection Agency and the State of California. Materials accepted at the Kettleman Hills Facility include asbestos debris, petroleum-contaminated

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[60] *County of Los Angeles, Department of Public Works, Los Angeles County Integrated Waste Management Plan 2016 Annual Report, September 2017.*

[61] *County of Los Angeles, Department of Public Works, Los Angeles County Integrated Waste Management Plan 2016 Annual Report, September 2017.*

[62] *County of Los Angeles, Department of Public Works, Board Motion of January 27, 2015, Item No. 21-A, Conversion Technology Projects Semi-Annual Status Report: February Through July 2016, August 17, 2016.*

[63] *Clean Harbors Environmental Services, Transportation & Disposal: Buttonwillow, California Facility Facts.*

soils and debris, soils and debris with metal contamination, household hazardous wastes from collection events, baghouse dusts, various ash waste, filter cake, catalyst solids, latex paint, groundwater, stormwater, clarifier water, and various sludges.[64] An expansion of the Kettleman Hills B-18 hazardous waste disposal facility that would extend its permitted disposal capacity by eight years was approved in 2014 and is now complete.[65] However, due to on-going efforts to increase the recycling of hazardous materials, the duration of disposal capacity at the B-18 facility may extend beyond the forecasted eight-year period. The Kettleman Hills facility's operator, Waste Management, Inc., has proposed the development of an additional hazardous waste facility (the B-20 Landfill) that would open after the B-18 facility reaches capacity and would operate for an estimated 24 years; Waste Management, Inc. is currently seeking permit approval for the proposed B-20 Landfill.[66]

(2) Solid Waste Generation and Disposal in the City of Los Angeles

The City of Los Angeles Bureau of Sanitation provides solid resources collection services for recyclables, tree and yard trimmings, residual waste, and horse manure from more than 750,000 homes.[67] The four-bin collection system consists of blue bins (recyclables), green bins (tree and yard trimmings), black bins (residual waste) and brown bins (horse manure). Using the calculation methodology adopted by the State of California, the City has achieved a landfill diversion rate of 76.4 percent.[68] As previously discussed, while the Bureau of Sanitation generally provides waste collection services to single-family and some small multi-family developments, private haulers permitted by the City provide waste collection services for most multi-family residential and commercial developments within the City. Solid waste transported by both public and private haulers is either recycled, reused, or transformed at a waste-to-energy facility, or disposed of at a landfill.

As shown in Table IV.L.3-3 on page IV.L.3-27, in 2016, the City of Los Angeles disposed of approximately 2.74 million tons of solid waste at the County's Class III landfills

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[64] *Waste Management, Inc., Kettleman Hills, Facility Overview, http://kettlemanhillslandfill.wm.com/fact-sheets/2011/facility-overview.jsp, accessed August 6, 2018.*

[65] *Personal communication, Cecilio Barrera, Waste Management, Inc., September 14, 2017.*

[66] *Waste Management, Kettleman Hills, Facility Overview, http://kettlemanhillslandfill.wm.com/fact-sheets/2011/facility-overview.jsp, accessed August 6, 2018.*

[67] *City of Los Angeles, Bureau of Sanitation, Recycling, www.lacitysan.org/san/faces/home/portal/s-lsh-wwd/s-lsh-wwd-s/s-lsh-wwd-s-r?_adf.ctrl-state=alxbkb91s_4&_afrLoop=18850686489149411#!, accessed August 7, 2018.*

[68] *City of Los Angeles, Bureau of Sanitation, Recycling, www.lacitysan.org/san/faces/home/portal/s-lsh-wwd/s-lsh-wwd-s/s-lsh-wwd-s-r?_adf.ctrl-state=alxbkb91s_4&_afrLoop=18850686489149411#!, accessed August 7, 2018.*

Table IV.L.3-3
City of Los Angeles Solid Waste Disposal (2016)

Landfill/Transformation Facility	2016 Total Disposal[a] (tons)
Class III Landfills	
Antelope Valley	260,446.26
Calabasas	171,897.73
Chiquita Canyon[b]	840,300.25
Lancaster	36,939.06
Savage Canyon Landfill	3,298.55
Scholl Canyon	2,096.63
Sunshine Canyon	1,421,041.48
Total Class III Landfills	***2,736,019.96***
Transformation Facilities	
Commerce Refuse-to-Energy	17,671.84
Southeast Resource Recovery	27,270,40
Total Transformation Facilities	***44,942.24***
Inert Waste Landfill—Azusa Land Reclamation	***96,144.43***
Total Disposal	**2,877,106.63**

[a] *Additional materials were also received for recycling and beneficial use (e.g., construction and demolition debris, sediment, green waste, auto shred) that are not part of these disposal amounts.*

[b] *Expansion was approved in June 2017 for 30 years or 60 million tons, whichever occurs first. This expansion is not reflected in the remaining disposal capacity data. The Chiquita Canyon Landfill also has the capacity to receive inert waste. Source: County of Los Angeles Board of Supervisors, Statement of Proceedings for the Regular Meeting of the Board of Supervisors of the County of Los Angeles, June 27, 2017.*

Source: County of Los Angeles, Department of Public Works, Solid Waste Information System, Detailed Solid Waste Disposal Activity Report By Jurisdiction of Origin, Jurisdiction: Los Angeles (Reporting Period: January 2016 to December 2016).

and approximately 44,942.24 tons at transformation facilities.[69] As shown therein, Sunshine Canyon Landfill and Chiquita Canyon Landfill received the most waste from the City of Los Angeles. The 2.74 million tons of solid waste accounts for approximately

[69] *County of Los Angeles, Department of Public Works, Solid Waste Information System, Detailed Solid Waste Disposal Activity Report By Jurisdiction of Origin, Jurisdiction: Los Angeles (Reporting Period: January 2016 to December 2016). These numbers represent waste disposal, not generation, and thus do not reflect the amount of solid waste that was diverted via source reduction and recycling programs within the City.*

3.21 percent of the total remaining capacity (85.44 million tons) for the County's Class III landfills open to the City.[70]

As indicated in Table IV.L.3-1 on page IV.L.3-18, as of December 2016, the latest period for which annual data are available, the remaining disposal capacity for Azusa Land Reclamation (the only permitted Inert Waste Landfill in the County that has a full solid waste facility permit) is approximately 56.34 million tons. As shown in Table IV.L.3-3, in 2016, the City landfilled approximately 96,144.43 tons of construction and demolition waste in the Inert Waste Landfill. This amount accounts for 0.2 percent of the total remaining capacity at the landfill.

(3) City of Los Angeles Hazardous Waste Disposal Programs

The Bureau of Sanitation has established six permanent waste collection sites throughout the City known as S.A.F.E. (solvents/automotive/flammables/electronics) Centers, which are open every weekend to allow residents and businesses to conveniently dispose of their household hazardous waste. The S.A.F.E. centers generally accept used motor oil and filters; paint and solvents; e-waste, such as computers, cell phones and televisions; household cleaning products; car and household batteries; fluorescent tubes and bulbs; home-generated sharps, such as needles and lancets; and unused medicine (except controlled substances).[71] To facilitate disposal of household hazardous waste throughout the City, the Bureau of Sanitation also provides Mobile Collection Events throughout the City where residents can drop off waste to be disposed of properly.[72] In addition, CalRecycle has certified used motor oil collection centers throughout the state. These locations accept uncontaminated oil throughout the year. For further discussion of the use, storage, handling, and disposal of hazardous materials and hazardous wastes on the Project Site, refer to Section IV.E, Hazards and Hazardous Materials, of this Draft EIR.

(4) City of Los Angeles Recycling Programs

The Bureau of Sanitation develops and implements source reduction, recycling, and composting programs in the City. Such programs include mandatory commercial organics recycling, commercial recycling, blue bin recycling, green bin recycling, tire recycling, and multi-family residential recycling, among others. The Bureau of Sanitation and the Department of Building Safety also implement the City's construction and demolition waste

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[70] *(3.21 million tons ÷ 85.44 million tons) × 100 = 3.21 percent.*

[71] *City of Los Angeles, Bureau of Sanitation, S.A.F.E. Collection Centers flyer.*

[72] *City of Los Angeles, Bureau of Sanitation, Hazardous Waste, S.A.F.E. Centers & Mobile Collection Events, www.lacitysan.org/san/faces/home/portal/s-lsh-wwd/s-lsh-wwd-s/s-lsh-wwd-s-c/s-lsh-wwd-s-c-hw/s-lsh-wwd-s-c-hw-safemc?_adf.ctrl-state=qbflb4qjn_273&_afrLoop=3331564728185060 3#!, accessed August 6, 2018.*

recycling ordinance, which requires that all haulers and contractors handing construction and demolition waste must obtain a waste hauler permit for hauling of such material to a certified construction and demolition processing facility.

(5) On-Site Solid Waste Generation

As summarized in Section II, Project Description, of this Draft EIR, the Project Site is developed with a former surface parking lot (currently in use as a staging and excavation area for construction of the Metro Regional Connector 2nd Street/Broadway rail station and portal), and a five-story parking structure that includes rooftop parking and two subterranean levels. The existing on-site uses generate minimal municipal solid wastes typical of parking structure uses including, but not limited to, paper, glass, metal, plastics, food waste, wood, cardboard, and landscape waste. Currently, waste generated within the Project Site is collected by a private waste hauler.

3. Project Impacts

a. Methodology

The Project's potential solid waste impacts are based on an analysis of the estimated amount of waste generated during both construction and operation of the Project relative to area-wide disposal rates and the remaining capacity at facilities serving the Project area. The Project's solid waste generation is considered both in terms of total amount of waste generated, as well as the amount of waste that would actually be disposed of at a landfill following diversion (e.g., recycling, reuse, or other methods). For the assessment of cumulative impacts related to solid waste, the projected cumulative solid waste generation is considered in light of the estimated available capacities of receiving landfills and the various waste disposal scenarios analyzed in the 2016 Annual Report.

(1) Construction

Anticipated solid waste generation for the Project's construction activities was determined using rates provided by the United States Environmental Protection Agency (USEPA) based on the types of land use and amount of floor area proposed for demolition and construction. The results of these calculations were compared with the available capacity at the landfills that currently accept construction waste from the area of the City that includes the Project Site in order to assess the significance of the Project's solid waste disposal.

(2) Operation

The Project's waste generation and anticipated waste disposal needs during operations were estimated using the waste generation factors and disposal data provided in the City of Los Angeles Bureau of Sanitation, City Waste Characterization and Quantification Study, dated July 2002 for non-residential uses and the City of Los Angeles CEQA Thresholds Guide Solid Waste Generation rate for residential uses of the Project. The Project's estimated waste generation and waste disposal quantities were then compared with the remaining capacity at Class III landfills open to the City of Los Angeles to determine whether adequate capacity would be available to accommodate the Project.

b. Thresholds of Significance

(1) State CEQA Guidelines Appendix G

In accordance with State CEQA Guidelines Appendix G (Appendix G), the Project would have a significant impact related to solid waste if it would not:

Threshold (a): Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs; or

Threshold (b): Comply with federal, state, and local statutes and regulations related to solid waste.

(2) 2006 L.A. CEQA Thresholds Guide

The *L.A. CEQA Thresholds Guide* states that the determination of significance shall be made on a case-by-case basis, considering the following criteria to evaluate solid waste:

- 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 and objectives in the Source Reduction and Recycling Element or its updates, the City of Los Angeles Solid Waste Management Policy Plan, the City Framework or the City Curbside Recycling Program, including consideration of the land use-specific

waste diversion goals contained in Volume 4 of the Source Reduction and Recycling Element.[73]

In assessing impacts related to solid waste in this section, the City will use Appendix G as the thresholds of significance. The criteria identified above from the *L.A. CEQA Thresholds Guide* will be used where applicable and relevant to assist in analyzing the Appendix G threshold questions.

c. Analysis of Project Impacts

(1) Project Design Features

The following project design features are proposed with regard to solid waste:

SW-PDF-1: The Project shall provide clearly marked, durable on-site recycling containers to promote the recycling of paper, metal, glass, and other recyclable materials and adequate storage areas for such containers during construction.

SW-PDF-2: Building materials with a minimum of 10 percent recycled-content shall be used for Project construction.

SW-PDF-3: During construction, the Project shall implement a construction waste management plan to recycle and/or salvage a minimum of 75 percent of non-hazardous construction debris.

SW-PDF-4: During operation, the Project shall implement a solid waste diversion program to provide for the diversion (through source reduction, reuse, recycling, composting, etc.) of 75 percent of operational waste.

(2) Relevant Project Characteristics

As described in detail in Section II, Project Description, of this Draft EIR, the Project involves the development of a 30-story mixed-use building consisting of 107 residential units (comprising an estimated 137,347 square feet), plus 7,200 square feet of ground level commercial retail uses, and 534,044 square feet of office uses. The proposed residences would include 12 studios, 42 one-bedroom units, 40 two-bedroom units, and 13 three-

[73] *Waste diversion goals have been identified for a limited number of targeted waste generators and materials. Future updates of the Source Reduction and Recycling Element may expand the land uses and materials covered, or modify the current waste diversion goals. City of Los Angeles, Department of Public Works, Bureau of Sanitation, City of Los Angeles Solid Waste Planning Background Studies Summary Report, January 2006.*

bedroom units. The existing five-level parking structure located on the southern portion of the Project Site would remain and provide the required vehicular parking and long-term bicycle parking for the proposed uses, with surplus parking remaining available for other nearby uses, as under existing conditions.

Construction activities would require limited demolition of paved areas and landscaping as well as approximately 7,000 cubic yards of graded soil materials, which would be exported off-site to Chiquita Canyon Landfill and/or Manning Pit in Irwindale. The haul route to/from Chiquita Canyon Landfill is anticipated to follow segments of 2nd Street, Spring Street, 3rd Street, and Aliso Street in Downtown Los Angeles; CA-110, US-101, CA-170, and I-5; as well as Newhall Ranch Road, SR-126, and Henry Mayo Drive in Castaic. Alternatively, the haul route to/from Manning Pit would follow segments of 2nd Street, Spring Street, 4th Street, Los Angeles Street, El Monte Busway East, and Arcadia Street in Downtown; US-101 and I-10; and Vincent Drive in Irwindale.

(3) Project Impacts

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

(a) Construction Impacts

(i) Solid Waste Collection Route

The Project's construction and demolition wastes (e.g., wood, concrete, asphalt, cardboard, brick, glass, plastic, and metal) would be recycled or collected by private waste haulers contracted by the Project Applicant or its successor and taken to a City-certified waste processing facility for sorting and final distribution, including disposal at Azusa Reclamation, the County's permitted inert landfill. In addition, as previously indicated, the graded soil materials would be disposed of separately at Chiquita Canyon Landfill and/or Manning Pit.

Since construction and demolition waste would be hauled by a private construction contractor permitted by the City, the Project would not result in the need for an additional solid waste collection route.

(ii) Solid Waste Recycling and Disposal Facilities

The existing uses on the Project Site consist of a five-level parking structure and a former surface parking lot (which is currently in use as a staging and excavation area for construction of the Metro Regional Connector 2nd Street/Broadway rail station and portal). As Metro's current plans call for the restoration of a paved surface area on those areas of

the northern portion of the Project Site outside of the new Metro portal and plaza following the completion Metro's construction activities, this analysis assumes the Project Applicant would need to remove that restored paved area. Accordingly, Project construction would remove up to approximately 40,000 square feet of paved surfaces and the existing landscaping immediately south of the surface parking lot. The existing five-level parking structure located on the southern portion of the Project Site would remain and provide the required vehicular parking and long-term bicycle parking for the proposed uses.

As shown in Table IV.L.3-4 on page IV.L.3-34, based on construction and debris rates established by the USEPA, it is anticipated that Project construction activities would generate a total of approximately 3,100 tons of demolition debris and 1,354 tons of construction debris, for a combined total of 4,454 tons of construction-related waste generation. It should be noted that soil export is not typically included in the calculation of construction waste to be landfilled since soil is not disposed of as waste but, rather, is typically used as a cover material. Thus, soil export is not included in these totals.

In accordance with SW-PDF-3, the Project's construction contractor would implement a construction waste management plan to achieve a minimum 75 percent diversion from landfills. Furthermore, pursuant to LAMC Sections 66.32 through 66.32.5 (Ordinance No. 181,519), the Project's construction contractor would be required to deliver all remaining construction and demolition waste generated by the Project to a Certified Construction and Demolition Waste Processing Facility. Thus, although the total diversion rate would likely exceed 75 percent, this analysis conservatively assumes a diversion rate of 75 percent. Applying this rate, the Project would require the disposal of approximately 1,113 tons of construction-related waste in the County's inert landfill throughout the construction period. This amount of construction and debris waste would represent approximately 0.002 percent of the Azusa Land Reclamation Landfill's existing remaining disposal capacity of 57.56 million tons (refer to Table IV.L.3-1 on page IV.L.3-18). Thus, the total amount of construction and demolition waste generated by the Project would represent a small fraction of the remaining capacity at the permitted inert landfill serving Los Angeles County. Since the County's permitted inert landfill does not face capacity shortages and the County's permitted inert landfill would be able to accommodate Project-generated waste, construction of the Project would not result in the need for an additional disposal facility to adequately handle Project-generated construction-related waste.

Therefore, the Project would be served by landfills with sufficient permitted capacity to accommodate its solid waste disposal needs, and construction impacts to solid waste facilities would be less than significant.

Table IV.L.3-4
Project Demolition and Construction Waste Generation

Land Use	Size/Units	Generation Rate[a] (lbs/sf)	Total (tons)
Existing Uses to be Removed			
Paved Areas	40,000 sf	155	3,100
Total Demolition Waste			**3,100**
Proposed Uses			
Multi-Family Residential (107 Units)	137,347 sf	4.38	301
Commercial Retail	7,200 sf	3.89	14
Office	534,044 sf	3.89	1,039
Total Construction Waste			**1,354**
Total Waste (prior to recycling)			**4,454**
Total Waste (after 75 percent recycling)			**1,113**

sf = square feet

[a] *U.S. Environmental Protection Agency, Report No. EPA530-98-010, Characterization of Building-Related Construction and Demolition Debris in the United States, June 1998, pages 2-3, 2-4, and 2-8 and Appendix A, Table A-6.*

Source: Eyestone Environmental, 2017.

(iii) Hazardous Waste

As discussed in Section IV.E, Hazards and Hazardous Materials, of this Draft EIR, since there are no structures to be removed, there is no need for the removal of any asbestos or asbestos containing materials, lead based paint, or polychlorinated biphenyl. However, construction activities would require the use of fuel and oils associated with construction equipment, as well as coatings, paints, adhesives, and caustic or acidic cleaners typically involved in the construction process. Those hazardous materials that are not consumed during the construction process would require proper disposal at a licensed hazardous waste disposal facility, such as the Buttonwillow Landfill Facility or the Kettleman Hills Waste Facility, in accordance with applicable requirements of relevant regulatory agencies, including the Los Angeles Fire Department (LAFD), City of Los Angeles Department of Public Works, Los Angeles Regional Water Quality Control Board (LARWQCB), and/or the California Department of Toxic Substances Control (DTSC). As described above, the Buttonwillow Landfill is the closest Class I landfill to the Project Site and has a permitted landfill capacity in excess of 10 million cubic yards.

As such, the Project would be served by a landfill that could accept hazardous waste from the Project Site as needed. Compliance with regulatory requirements,

outlined in detail in Section IV.E, Hazards and Hazardous Materials, of this Draft EIR, would reduce the potential for Project impacts associated with disposal of construction-related hazardous waste to a less-than-significant level.

(b) Operational Impacts

(i) Solid Waste Collection Routes

Operation of the Project would generate municipal solid waste typical of residential and commercial developments. Solid waste generated by the Project would be recycled or collected by private waste haulers contracted by the Project Applicant or its successor and permitted by the City and taken for disposal at one of the County's Class III landfills open to the City of Los Angeles.[74] The transport of Project-generated solid waste to waste management/disposal facilities would continue to occur along existing solid waste routes of travel.

As such, the Project would not result in the need for additional solid waste collection routes to adequately handle Project-generated waste.

(ii) Solid Waste Recycling and Disposal Facilities

In addition to the proposed uses, as previously indicated, the existing five-level parking structure located on the southern portion of the Project Site would remain in place and provide the required vehicular parking and long-term bicycle parking for the Project, with surplus parking remaining available for other nearby uses, as under existing conditions. The waste stream associated with continued operation of the existing parking structure is not anticipated to change noticeably as a result of Project implementation. As such, the analysis of the Project's operational solid waste generation and disposal focuses on the proposed land uses and the associated net increase in solid waste relative to existing conditions.

As shown in Table IV.L.3-5 on page IV.L.3-36, Project operations would generate a net increase of approximately 1,109 tons of solid waste annually. Assuming a diversion rate of 75 percent in accordance with SW-PDF-4, the net increase in solid waste disposal associated with the Project would be approximately 277 tons per year, as shown in Table IV.L.3-5. This increase in solid waste disposal would represent an approximate

[74] *Private solid waste haulers hold individual contracts with landfill operators for the disposal of waste. Thus, it is unknown at this time which landfills would ultimately receive Project-generated waste. However, it is assumed that Project-generated waste would generally be disposed of at a Class III landfill open to the City of Los Angeles.*

Table IV.L.3-5
Project Solid Waste Generation

Project Land Use	Area/Units	Employees[a]	Solid Waste Generation Factor[b,c] (tons/du/yr or tons/emp/yr)	Waste Generation (tons/year)
Multi-Family Residential	107 du	—	2.23	239
Commercial Retail	7,200 sf	20	0.91	18
Office	534,044 sf	2,302	0.37	852
Total Generation by Proposed Uses (prior to diversion)				***1,109***
Total Disposal (after 75 percent diversion)				***277***

du = dwelling unit
yr = year
emp = employees
sf = square feet

[a] *Based on employment generation factors from Level 1—Developer Fee Justification Study for Los Angeles Unified School District, Table 15, March 2017. Assumes employee generation rates for "Neighborhood Shopping Centers" (0.00271 employee per square foot) and "Large High Rise Commercial Offices" (0.00431 employee per square foot). Refer to Section IV.H, Population, Housing, and Employment, of this Draft EIR for further discussion.*

[b] *Residential solid waste generation factor based on a rate of 12.23 pounds per household per day (converted to 2.23 tons per household per year), pursuant to the L.A. City CEQA Thresholds Guide.*

[c] *Non-residential solid waste generation factors from City of Los Angeles Bureau of Sanitation, City Waste Characterization and Quantification Study, July 2002. Assumes rates for "Retail—Miscellaneous" (0.91 tons per employee per year) for commercial retail uses and "Services—Business" (0.37 tons per employee per year) for office uses. These land use categories and associated waste generation rates have been selected as they are representative of the Project uses and more refined than the generic "commercial" rate set forth in the L.A. City CEQA Thresholds Guide.*

Source: Eyestone Environmental, 2017.

0.01 percent increase in the City's annual solid waste disposal quantity based on the 2016 disposal of approximately 2.88 million tons (refer to Table IV.L.3-3 on page IV.L.3-27).[75]

Project-generated solid waste would be collected by a private solid waste hauler and taken for disposal at one of the County's Class III landfills open to the City of Los Angeles. As shown Table IV.L.3-1 on page IV.L.3-18, the estimated remaining capacity for County Class III landfills open to the City of Los Angeles is approximately 85.44 million tons as of

[75] *County of Los Angeles, Department of Public Works; Los Angeles County Integrated Waste Management Plan 2015 Annual Report, December 2016.*

December 31, 2016.[76,77] Thus, the Project's net disposal of 277 tons of solid waste annually would represent approximately 0.0003 percent of the estimated remaining Class III landfill capacity available to the City of Los Angeles.

As previously discussed, the 2016 Annual Report indicates that the countywide cumulative need for Class III landfill disposal capacity within the next 15 years will exceed the 2016 remaining permitted Class III landfill capacity of 103.18 million tons. Constraints that also may limit the accessibility of Class III landfill capacity include wasteshed boundaries, geographic barriers, weather, and natural disasters. Therefore, the 2016 Annual Report evaluated seven scenarios and determined that the County would be able to meet the disposal needs of all jurisdictions through the 15-year planning period with six of the scenarios. The County would not be able to meet the disposal needs of all jurisdiction through the 15-year planning period under Scenario 1, which considers only the utilization of permitted in-County disposal capacity. The 2016 Annual Report also concluded that in order to maintain adequate disposal capacity, individual jurisdictions must continue to pursue strategies to maximize waste reduction and recycling, expand existing landfills, promote and develop alternative technologies, expand transfer and processing infrastructure, and use out of county disposal, including waste by rail. The County will continue to address landfill capacity through the preparation of Countywide Integrated Waste Management Plan Annual Reports. The preparation of each Annual Report provides sufficient lead time (15 years) to address potential future shortfalls in landfill capacity. Solid waste disposal is an essential public service that must be provided without interruption in order to protect public health and safety, as well as the environment. Jurisdictions in the County of Los Angeles continue to implement and enhance the waste reduction, recycling, special waste, and public education programs identified in their respective planning directives. These efforts, together with countywide and regional programs implemented by the County and the cities, acting in concert or independently, have achieved significant, measurable results, as documented in the 2016 Annual Report. As discussed below, the Project would be consistent with and would further City policies that reduce landfill waste streams. Such policies and programs serve to implement the

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[76] *Total excludes Class III landfills not open to the City of Los Angeles for disposal (i.e., Scholl Canyon, Whittier, Burbank, Pebbly Beach, and San Clemente) and the Calabasas Landfill, as its wasteshed does not include the Project Site. Total also excludes the additional expansion that may be provided by the Chiquita Canyon Landfill Expansion, as this expansion is not currently operational.*

[77] *From the County of Los Angeles, Department of Public Works, Los Angeles County Integrated Waste Management Plan 2016 Annual Report, September 2017. Estimated remaining Permitted Capacity based on landfill owner/operator responses in a written survey by Los Angeles County Department of Public Works in May 2017 as well as a review of the site specific permit criteria established by local land use agencies, Local Enforcement Agencies, CalRecycle, California Regional Water Quality Control Board, and the South Coast Air Quality Management District.*

strategies outlined in the 2016 Annual Report to adequately meet countywide disposal needs through 2031 without capacity shortages.

Thus, based on the amount of solid waste to be generated by the Project, the implementation of SW-PDF-4, which commits to waste reduction consistent with City and state goals, and the existing capacity of Los Angeles County landfills, the Project would be served by a landfill with sufficient permitted capacity to accommodate the Project's operational solid waste disposal needs. Potential impacts associated with solid waste disposal would be less than significant.

Threshold (b): Would the Project comply with federal, state, and local statutes and regulations related to solid waste?

(a) Construction

As discussed in Section VI, Other CEQA Considerations, of this Draft EIR, and the Initial Study (Appendix A of this Draft EIR), Project development is expected to comply with federal, state, and local statutes and regulations related to solid waste. Nonetheless, an evaluation of regulatory consistency is provided below.

Per SW-PDF-1, the Project would provide recycling containers on-site during construction, in accordance with City Ordinance No. 171,687. Additionally, the Project's construction contractor would deliver all construction and demolition waste generated by the Project to a Certified Construction and Demolition Waste Processing Facility in accordance with City Ordinance No. 181,519. Furthermore, the Project would implement SW-PDF-2 and SW-PDF-3 to reduce construction-related solid waste generation through the use of recycled building materials and the recycling of construction and demolition debris. In particular, in accordance with SW-PDF-3, the Project would implement a construction waste management plan to divert a minimum of 75 percent waste from landfills, thus exceeding state requirements. Thus, the Project would promote source reduction and recycling, consistent with AB 939 and the City's Solid Waste Integrated Resources Plan, Source Reduction and Recycling Element, Solid Waste Management Policy Plan, General Plan Framework Element, RENEW LA Plan, Green LA Plan, and Sustainable City pLAn.

As mentioned above and further discussed in Section IV.E, Hazards and Hazardous Materials, of this Draft EIR, there are no asbestos or asbestos containing materials, lead based paints, or polychlorinated biphenyls present on-site requiring removal. However, construction activities would require the use of fuel and oils associated with construction equipment, as well as coatings, paints, adhesives, and caustic or acidic cleaners. Any hazardous materials that are not consumed during the construction process would require

proper disposal at a licensed hazardous waste disposal facility, in accordance with applicable requirements of the relevant regulatory agencies, including the LAFD, City Department of Public Works, LARWQCB, and/or DTSC. Compliance with such requirements, as outlined in detail in Section IV.E, Hazards and Hazardous Materials, would reduce the potential for Project impacts associated with the disposal of construction-related hazardous waste to a less-than-significant level.

In summary, Project construction would not conflict with any applicable City or state solid waste policies or objectives.

(b) Operation

As previously described, per SW-PDF-1, the Project would provide recycling containers and associated storage areas on-site during the operational phase, in accordance with City Ordinance No. 171,687. Additionally, the Project would comply with the City's Green Building Ordinance, as applicable (refer to Section IV.F, Land Use, of this Draft EIR for further discussion). Furthermore, the Project would comply with the recycLA franchise system, which is now operational. Finally, with implementation of a solid waste diversion program in accordance with SW-PDF-4, the Project would achieve at least a 75 percent waste diversion rate, consistent with the AB 341 recycling goal effective in 2020, as well as the City's Green LA Plan. Therefore, the Project would not conflict with solid waste policies and objectives in the City's Source Reduction and Recycling Element or its updates, the City's Solid Waste Management Policy Plan, General Plan Framework Element, or Curbside Recycling Program, or the County Integrated Waste Management Plan. **As such, potential impacts with regard to consistency with solid waste regulations and policies would be less than significant.**

4. Cumulative Impacts

The geographic context for the cumulative impact analysis for solid waste is the entire County of Los Angeles because the landfills open to the City of Los Angeles serve the entire County. The Project in conjunction with growth forecasted in the County through 2025 (i.e., the Project buildout year), would cumulatively generate solid waste, thus potentially resulting in cumulative impacts on solid waste facilities.

Cumulative growth in the greater Project area includes 173 specific known development projects as well as general ambient growth projected to occur, as described in Section III, Environmental Setting, of this Draft EIR. These related projects primarily include retail/commercial, residential, office, and hotel uses. Much of this growth is anticipated by the City and will be incorporated into the Central City Community Plan Update, known as the DTLA 2040 Plan, which the Department of City Planning is in the

process of preparing (refer to Section IV.F, Land Use, of this Draft EIR for further discussion). According to the DTLA 2040 projections, an additional approximately 125,000 people, 70,000 housing units, and 55,000 jobs will be added to the Downtown area by the year 2040.[78]

(a) Construction Impacts

(i) Solid Waste Collection Routes

Construction of the Project in combination with the related projects would involve demolition and building construction activities. These activities would generate construction and demolition wastes that would be recycled or collected by private waste haulers contracted by each project applicant and taken to a City-certified waste processing facility for sorting and final distribution, including disposal at the County's unclassified landfill. Since construction and demolition waste would be hauled by a private construction contractor permitted by the City, the Project and each of the related projects would not result in the need for an additional solid waste collection route. **Therefore, cumulative impacts on solid waste collection routes would be less than significant.**

(ii) Solid Waste Recycling and Disposal Facilities

The cumulative generation of construction and demolition waste would result in a cumulative increase in the demand for inert waste landfill capacity. As analyzed above, the Project would dispose of an estimated 1,113 tons of construction and demolition waste in the County's inert waste landfills after accounting for recycling pursuant to SW-PDF-3. Given the requirements of the Citywide Construction and Demolition Debris Recycling Ordinance (Ordinance No. 181,519), which requires all mixed construction and demolition waste generated within City limits be taken to a City certified construction and demolition waste processor, it is anticipated that future cumulative development would also implement similar measures to divert construction and demolition waste from landfills and adhere to mandatory Code diversion rates for residential and non-residential uses, as applicable. Furthermore, as described above, between the permitted Inert Waste Landfill (Azusa Land Reclamation) and other landfills accepting inert waste (Manning Pit in Irwindale and Chiquita Canyon), the County does not face capacity issues. **Therefore, cumulative impacts on inert waste landfills would be less than significant, and no mitigation measures are required.**

[78] *Growth projections current as of December 2018. Source: City of Los Angeles, DTLA 2040, About This Project, www.dtla2040.org/, accessed December 6, 2018.*

(iii) Hazardous Waste

As discussed in Section IV.E, Hazards and Hazardous Materials, of this Draft EIR, based on the age of buildings in the Project area, asbestos or asbestos containing materials, lead based paint, polychlorinated biphenyl, and other ground/soil contamination may be present. Any such materials would be expected to be disposed of at permitted hazardous materials disposal facilities such as the Buttonwillow Landfill, which has a permitted landfill capacity in excess of 10 million cubic yards, or the Kettleman Hills Facility, which was approved for expansion in 2014.[79,80]

Cumulative construction activities also would require the use of fuel and oils associated with construction equipment, as well as coatings, paints, adhesives, and caustic or acidic cleaners involved in the construction of new or rehabilitated structures. Any hazardous materials that are not utilized during the construction process would require proper disposal at a licensed hazardous waste disposal facility, in accordance with all applicable requirements of relevant regulatory agencies, including the LAFD, City Department of Public Works, LARWQCB, and/or the DTSC.

The Project and each of the related projects would therefore have less-than-significant impacts from hazardous waste disposal. In addition, because the use of hazardous materials is largely site-specific, compliance of each individual project with such requirements would reduce the potential for cumulative impacts associated with disposal of construction-related hazardous waste to a less-than-significant level.

(b) Operational Impacts

(i) Solid Waste Collection Routes

Operation of the Project, along with each of the related projects in the area and other forecasted growth, would generate municipal solid waste typical of residential, commercial, and institutional developments. Solid waste generated by cumulative development in the area would be recycled or collected by private waste haulers contracted by each project applicant and permitted by the City and taken for disposal at one of the County's Class III landfills open to the City of Los Angeles.[81] The transport of solid waste

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[79] *Clean Harbors Environmental Services, Transportation & Disposal: Buttonwillow, California Facility Facts.*

[80] *Waste Management, Inc., Kettleman Hills, Facility Overview, http://kettlemanhillslandfill.wm.com/fact-sheets/2011/facility-overview.jsp, accessed August 6, 2018.*

[81] *Private solid waste haulers hold individual contracts with landfill operators for the disposal of waste. Thus, it is unknown at this time which landfills would ultimately receive Project-generated waste.* *(Footnote continued on next page)*

generated by cumulative development to waste management/disposal facilities would continue to occur along existing solid waste routes of travel and would be a part of the City's recycLA franchise system.

As such, the Project and each of the related projects would not result in the need for additional solid waste collection routes to adequately handle new solid waste generated by cumulative development. Therefore, cumulative impacts on solid waste collection routes would be less than significant.

(ii) Solid Waste Disposal Facilities

Operation of the Project in conjunction with the related projects and other forecasted growth would generate municipal solid waste and result in a cumulative increase in the demand for waste disposal capacity at Class III landfills. As previously stated, the Countywide demand for landfill capacity is continually evaluated by the County through preparation of the County Integrated Waste Management Plan Annual Reports. Each Annual Report assesses future landfill disposal needs over a 15-year planning horizon. As such, the 2016 Annual Report projects waste generation and available landfill capacity through 2031.

According to the 2016 Annual Report, the forecasted waste generation within the County in 2025 (i.e., the anticipated Project buildout year) would be approximately 30,924,526 tons.[82] Assuming a 75-percent diversion rate, consistent with the diversion rate assumed in the 2016 Annual Report, an estimated 7,731,132 tons of solid waste would need to be disposed at Class III landfills and transformation facilities in 2025. Based on the seven scenarios evaluated in the 2016 Annual Report, only Scenario I, Utilization of Permitted In-County Disposal Capacity Only, results in a shortfall during the Project's buildout year. The remaining six scenarios demonstrate adequate disposal capacity, including Scenario II, Status Quo, which results in a surplus capacity of 8,537 tons per day in 2025. Furthermore, the Project's estimated annual disposal of approximately 277 tons during operation would represent a small percentage (approximately 0.00037 percent) of the estimated cumulative waste disposal in the County in 2025 (i.e., 7,731,132 tons).

However, it is assumed that Project-generated waste would generally be disposed of at a Class III landfill open to the City of Los Angeles.

[82] *County of Los Angeles, Department of Public Works, County of Los Angeles Countywide Integrated Waste Management Plan 2016 Annual Report, September 2017, Appendix E-2, Table 4.*

Given that adequate disposal capacity would be available under six of the seven scenarios studied in the 2016 Annual Report, cumulative impacts with regard to solid waste disposal capacity would be less than significant.

(c) Consistency with Applicable Regulations

As discussed in Section VI, Other CEQA Considerations, of this Draft EIR, and the Initial Study (Appendix A of this Draft EIR), Project development is expected to comply with federal, state, and local statutes and regulations related to solid waste. Nonetheless, an evaluation of the consistency of the Project and related projects with applicable regulations is provided below.

(i) Construction

The Project's and each related project's construction contractor would deliver all construction and demolition waste generated to a Certified Construction and Demolition Waste Processing Facility in accordance with City Ordinance No. 181,519. Furthermore, in accordance with regulatory requirements, future development projects would implement waste reduction measures to reduce construction-related solid waste generation through the use of recycled building materials for new construction and the recycling of construction and demolition debris. Thus, the Project and each of the related projects would promote source reduction and recycling, consistent with AB 939 and the City's Solid Waste Integrated Resources Plan, General Plan Framework Element, RENEW LA Plan, Green LA Plan, and Sustainable City pLAn. **Therefore, construction of the Project and each of the related projects would not conflict with applicable state or City solid waste regulations.**

(ii) Operation

As discussed above, the 2016 Annual Report determined future disposal needs can be adequately met through 2031 with implementation of strategies incorporated in Scenarios II through VII. The County will continue to address landfill capacity through the preparation of Countywide Integrated Waste Management Plan Annual Reports to address potential future shortfalls in landfill capacity. In addition, jurisdictions in the County continue to implement and enhance the waste reduction, recycling, special waste, and public education programs identified in their respective planning directives. These efforts, together with Countywide and regional programs implemented by the County and the cities, acting in concert or independently, have achieved significant, measurable results, as documented in the 2016 Annual Report. Based on this trend and because solid waste disposal is an essential public service that must be provided without interruption to protect public health and safety and the environment, concerted actions would continue to be taken by jurisdictions towards expanding and enhancing waste reduction and recycling

programs, and implementing prudent solid waste management strategies in response to the strategies identified in the 2016 Annual Report. In addition, these actions would be consistent with AB 939, the County Integrated Waste Management Plan, and the City's Solid Waste Integrated Resources Plan, City's General Plan Framework Element, RENEW LA Plan, and Green LA Plan. Similar to the Project, the related projects would not conflict with AB 939, the County Integrated Waste Management Plan, or the City's Solid Waste Integrated Resources Plan, City's General Plan Framework Element, RENEW LA Plan, and Green LA Plan, and would promote source reduction and recycling, consistent with the relevant regulations and plans identified above. **Thus, cumulative impacts with regard to solid waste would be less than significant.**

5. Mitigation Measures

Project-level and cumulative impacts with regard to solid waste would be less than significant. Therefore, no mitigation measures are required.

6. Level of Significance After Mitigation

Project-level and cumulative impacts with regard to solid waste would be less than significant without mitigation.