IV. Environmental Impact Analysis

L.2 Utilities and Service Systems—Wastewater

1. Introduction

This section of the Draft EIR analyzes the potential impacts of the Project to the existing wastewater infrastructure and treatment facilities that serve the Project Site. The analysis describes the existing wastewater system (including local and regional conveyance and treatment facilities), calculates the wastewater to be generated by the Project, and evaluates whether sufficient capacity would be available to meet the Project's estimated wastewater generation. The analysis is based, in part, on the *Water and Sewer Infrastructure Assessment Report* (Infrastructure Assessment Report), prepared for the Project by Fuscoe Engineering (January 2018), which is included in Appendix O of this Draft EIR.

2. Environmental Setting

a. Regulatory Framework

(1) Federal

No federal regulations are relevant to the thresholds discussed below.

(2) State

The California Green Building Standards Code, commonly referred to as the CALGreen Code, is set forth in California Code of Regulations Title 24, Part 11, and establishes voluntary and mandatory standards pertaining to the planning and design of sustainable site development and water conservation, among other issues. Under the CALGreen Code, all water closets (i.e., flush toilets) are limited to 1.28 gallons per flush, and urinals are limited to 0.5 gallon per flush. In addition, maximum flow rates for faucets are established at: 2.0 gallons per minute (gpm) at 80 pounds per square inch (psi) for showerheads; 1.2 gpm at 60 psi for residential lavatory faucets; and 1.8 gpm at 60 psi for kitchen faucets.

(3) Local

(a) City of Los Angeles General Plan Framework

The City of Los Angeles General Plan Framework guides the update of the community plan and Citywide elements, thereby providing a Citywide strategy for long-term growth. As such, it addresses state and federal mandates to plan for the future. Chapter 9, Infrastructure and Public Services, of the City's General Plan Framework identifies goals, objectives, and policies for utilities in the City. Goal 9A of Chapter 9 is to provide for adequate wastewater collection and treatment capacity for the City and in basins tributary to City-owned wastewater treatment facilities.

(b) City of Los Angeles Integrated Resources Plan

The City of Los Angeles Integrated Resources Plan (IRP) was created through a contemporary approach that emphasized stakeholder involvement, public input, and interdepartmental collaboration.[1] Multiple departments worked together to develop a single, integrated plan to address the facility needs of the City's wastewater program, recycled water, and urban runoff/stormwater management through the year 2020.

The IRP preparation process began in 1999 in two phases. Phase I of the IRP addressed the anticipated water, wastewater, and stormwater needs of the City through the year 2020 using comprehensive, basin-wide water resources planning. During this initial phase, which took place from 1999 to 2001, gaps in the existing water system's capability to serve future populations, as projected by the Southern California Association of Governments (SCAG), were examined and different Preliminary Alternatives to address these gaps were created. Phase II of the IRP, which took place from 2002 to 2006, involved the selection and comparison of four Preliminary Alternatives all aimed at ensuring implementation of the appropriate infrastructure, policies, and programs to reliably serve Los Angeles to 2020 and beyond. Within Phase II of the IRP, a Financial Plan, a Public Outreach Program, and a five-volume Facilities Plan were also developed. The Facilities Plan contains alternative development options and a Capital Improvement Program, as well as wastewater, water, and stormwater runoff management strategies. The Capital Improvement Program provides anticipated capital, operation, maintenance, project timing, and implementation strategies for tracking and monitoring triggers.[2]

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[1] *The IRP replaced the City's 1991 Wastewater Facilities Plan.*

[2] *City of Los Angeles Department of Public Works Bureau of Sanitation and Department of Water and Power, Water Integrated Resources Plan 5-Year Review FINAL Documents, June 2012; City of Los Angeles Department of Public Works Bureau of Sanitation and Department of Water and Power, City of Los Angeles Integrated Resources Plan Summary Report, December 2006; City of Los Angeles Department of Public*

(Footnote continued on next page)

The Los Angeles City Council certified the IRP Final Environmental Impact Report (EIR) prepared within Phase II on November 14, 2006, and adopted a final alternative, the Approved Alternative (Alternative 4), from the four Preliminary Alternatives. The Final IRP 5-Year Review was released in June 2012. According to the Final IRP 5-Year Review, Alternative 4 included 12 projects that were separated into two categories: (1) "Go Projects" for immediate implementation; and (2) "Go-If Triggered Projects" for implementation in the future once a trigger is reached.[3] Triggers for these projects include wastewater flow, population, regulations, or operational efficiency. Based on the Final IRP 5-Year Review, the Go Projects consisted of six capital improvement projects for which triggers were considered to have been met at the time the IRP EIR was certified. The Go-If Triggered Projects consisted of six capital improvement projects for which triggers were not considered to have been met at the time the IRP EIR was certified.

Since the implementation of the IRP, new programs and projects, which have resulted in a substantial decrease in wastewater flows, have affected the Go Projects and Go-If Triggered Projects. Based on the Final IRP 5-Year Review, two of the Go Projects have been moved to the Go-If Triggered category (Go Project 2 and Go Project 3), and two have been deferred beyond the 2020 planning window of the IRP (Go Project 4 and Go Project 5). Construction of wastewater storage facilities at the Donald C. Tillman Water Reclamation Plant (Go Project 1) has been completed. In addition, Go Project 6, involving the design of the North East Interceptor Sewer Phase II, is no longer being pursued.

As discussed above, the IRP addressed the anticipated water, wastewater, and stormwater needs of the City through the year 2020. As 2020 approaches, the City has developed the One Water Los Angeles 2040 Plan, which builds on the premise of the IRP to maximize water resources by creating programs and projects that provide multi-beneficial functions. The final One Water LA Plan was completed in April 2018. As provided in the One Water LA 2040 Plan, the purpose of the One Water LA 2040 Plan is to increase sustainable water management for the City. The One Water LA 2040 Plan provides a comprehensive strategy for managing water in a more integrated, collaborative, and sustainable way through new project, program, and policy opportunities. As it relates to wastewater, the One Water LA 2040 Plan includes a Wastewater Facilities Plan, which would guide LA Sanitation (LASAN) decisions on implementing system improvements to its wastewater collection and treatment facilities. The One Water LA 2040 Plan concludes that based on the design capacities and the projected future flows of each Water

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Works Bureau of Sanitation and Department of Water and Power, City of Los Angeles Integrated Resources Plan: Planning for Wastewater, Recycled Water and Storm Water Management: A Visionary Strategy for the Right Facilities, in the Right Place, at the Right Time, Executive Summary, December 2006.

[3] *City of Los Angeles Department of Public Works Bureau of Sanitation and Department of Water and Power, Water Integrated Resources Plan 5-Year Review FINAL Documents, June 28, 2016.*

Reclamation Plant within the City through year 2040, all existing Water Reclamation Plants would have sufficient capacity to manage projected wastewater flows.[4]

(c) Sewer System Management Plan

On May 2, 2006, the State Water Resources Control Board adopted the Statewide General Waste Discharge Requirements for publicly owned sanitary sewer systems that are greater than 1 mile in length that collect and/or convey untreated or partially treated wastewater to a publicly owned treatment facility in California. Under the Statewide General Waste Discharge Requirements, the owners of such systems must comply with the following requirements: (1) acquire an online account from the State Water Board and report all sanitary sewer overflows online; and (2) develop and implement a written plan referred to as a Sewer System Management Plan to control and mitigate sanitary sewer overflows and make it available to any member of the public upon request in writing.

In accordance with the Statewide General Waste Discharge Requirements, the City of Los Angeles acquired online accounts from the State Water Board and began reporting sanitary sewer overflows by the due date of January 2, 2007. The City's original Sewer System Management Plan was adopted by the City's Board of Public Works and certified with the State Water Resources Control Board on February 18, 2009.[5] The City's Sewer System Management Plans were last updated in February 2015, which confirmed the City's Sewer System Management Plans are in full compliance with the Statewide General Waste Discharge Requirements and are effective.[6]

The goal of the Sewer System Management Plan for the Hyperion Service Area, in which the Project Site is located (as discussed below), is to provide a plan and schedule to properly manage, operate, and maintain all parts of the sanitary sewer system.[7] In addition, the Sewer System Management Plan will help to reduce and prevent sanitary sewer overflows as well as mitigate any sanitary sewer overflows that do occur.

(d) City of Los Angeles Municipal Code

Los Angeles Municipal Code (LAMC) Sections 64.11 and 64.12 require approval of a sewer permit prior to connection to the sewer system. New connections to the sewer system are assessed a Sewerage Facilities Charge. The rate structure for the Sewerage

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[4] *City of Los Angeles, LA Sanitation. One Water LA 2040 Plan, Volume 1, Summary Report, p. ES-20.*

[5] *City of Los Angeles, Sewer System Management Plan: Hyperion Sanitary Sewer System, February 2015.*

[6] *Ibid.*

[7] *Ibid.*

Facilities Charge is based upon wastewater flow strength as well as volume. The determination of wastewater strength for each applicable project is based on City guidelines for the average wastewater concentrations of biological oxygen demand and suspended solids, for each type of land use. Fees paid to the Sewerage Facilities Charge are deposited in the City's Sewer Construction and Maintenance Fund for sewer and sewage-related purposes, including, but not limited to, industrial waste control and water reclamation purposes.

Section 64.15 of the LAMC requires that the City perform a Sewer Capacity Availability Review when: (1) a sewer permit is required to connect to the City's sewer collection system; (2) a future sewer connection or future development proposes additional discharge into an existing public sewer connection; or (3) a future sewer connection or future development would generate 10,000 gallons or more of sewage per day. A Sewer Capacity Availability Review (SCAR) determines if there is adequate capacity existing in the sewer collection system to safely convey the newly generated sewage to the appropriate sewage treatment plant.

In addition, the City of Los Angeles Bureau of Engineering Special Order No. SO06-0691 sets forth design criteria for sewer systems requiring hat trunk, interceptor, outfall, and relief sewers (i.e. sewers that are 18 inches or greater in diameter) be designed for a planning period of 60 to 100 years, and lateral sewers (sewers that are less than 18 inches in diameter) be designed for a planning period of 100 years. The order also requires that sewers be designed so that the peak dry weather flow depth, during their planning period, shall not exceed 50 percent of the pipe diameter.

b. Existing Conditions

(1) Wastewater Generation

As discussed in Section II, Project Description, of this Draft EIR, the Project Site comprises a portion of the Marina Marketplace shopping center. The Project Site is currently occupied by three structures, including a two-story bookstore, a single-story building providing retail uses, a two-story commercial and retail building, and surface parking and circulation areas. Based on the Infrastructure Assessment Report, the existing retail and restaurant uses generate a total average daily wastewater flow of approximately 4,867 gallons per day.

(2) Wastewater Infrastructure

Sanitary sewer service in the Project area is provided by the City of Los Angeles. The existing wastewater collection system includes more than 6,700 miles of public sewers and serves a population of more than 4 million people. The system conveys approximately

400 million gallons per day to the City's four wastewater treatment and water reclamation plants.[8]

As described in the Infrastructure Assessment Report, there is one existing 8-inch diameter City-owned sewer line within the Project Site. The sewer line drains southerly and westerly, through the adjacent Hotel MdR property to the southwest, then southerly to an existing 8-inch sewer line along the north side of the Marina Freeway. There is also an existing 8-inch sewer line in Glencoe Avenue, which drains easterly toward Mindanao Avenue. This 8-inch sewer currently provides service to a portion of the Project Site. According to the Infrastructure Assessment Report, sewer flows originating from the Project Site are collected and conveyed through a network of sewer lines for treatment at the Hyperion Water Reclamation Plant (HWRP).

(3) Wastewater Treatment

LASAN is responsible for the operation of wastewater treatment facilities in the City. The main purpose of these treatment facilities is to remove potential pollutants from sewage in order to protect river and marine environments and public health. LASAN divides the wastewater treatment system of the City into two major service areas: the Hyperion Service Area and the Terminal Island Service Area. The Hyperion Service Area is served by the HWRP, the Donald C. Tillman Water Reclamation Plant, and the Los Angeles–Glendale Water Reclamation Plant. The Terminal Island Service Area is served by the Terminal Island Treatment Plant. The Project Site is located within the Hyperion Service Area.

(a) Hyperion Service Area

As shown in Table IV.L.2-1 on page IV.L.2-7, the existing design capacity of the Hyperion Service Area is approximately 550 million gallons per day (consisting of 450 million gallons per day at the HWRP, 80 million gallons per day at the Donald C. Tillman Water Reclamation Plant, and 20 million gallons per day at the Los Angeles–Glendale Water Reclamation Plant).[9] Current flows to the treatment plants that comprise the Hyperion Service Area total approximately 338.2 million gallons per day (consisting of 275 million gallons per day to the HWRP, 46 million gallons per day to the Donald C. Tillman Water Reclamation Plant, and 17.2 million gallons per day to the Los Angeles–

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[8] *LASAN, Sewers, www.lacitysan.org/san/faces/home/portal/s-lsh-wwd/s-lsh-wwd-cw/s-lsh-wwd-cw-s?_adf.ctrl-state=w3f8ikamv_4&_afrLoop=18666739916391336#!, accessed April 11, 2017.*

[9] *LASAN, Wastewater System Fact Sheet, www.lacitysan.org/san/sandocview?docname=QA001435, accessed January 5, 2017.*

Table IV.L.2-1
Existing Capacity of Hyperion Service Area

	Design Capacity (mgd)
Hyperion Water Reclamation Plant	450
Donald C. Tillman Water Reclamation Plant	80
Los Angeles–Glendale Water Reclamation Plant	20
Total	**550**

mgd = million gallons per day

Source: LA Sanitation, Wastewater System Fact Sheet, www.lacitysan.org/san/sandocview?docname=QA001435, accessed April 11, 2017.

Glendale Water Reclamation Plant).[10,11] Current flows are below the design capacity of approximately 550 million gallons per day for the Hyperion Service Area.

(b) Hyperion Water Reclamation Plant

As discussed above, wastewater generated from the Project Site is conveyed via the local collector sanitary sewer system directly to the HWRP for treatment. As shown in Table IV.L.2-1, the HWRP has the capacity to treat approximately 450 million gallons per day of wastewater for full secondary treatment and currently treats approximately 275 million gallons per day.[12] As such, the HWRP is currently operating at approximately 61 percent of its capacity, with a remaining available capacity of approximately 175 million gallons per day. Based on the above, current flows to the HWRP is well below its design capacity of approximately 450 million gallons per day.

Incoming wastewater to the treatment plant initially passes through screens and basins to remove coarse debris and grit. This is followed by primary treatment, which is a physical separation process where heavy solids settle to the bottom of tanks while oil and grease float to the top. These solids, called sludge, are collected, treated, and recycled. The portion of water that remains, called primary effluent, is treated through secondary treatment using a natural, biological approach. Living micro-organisms are added to the

[10] *LASAN, Hyperion Water Reclamation Plant, www.lacitysan.org/san/faces/wcnav_externalId/s-lsh-wwd-cw-p-hwrp?_adf.ctrl-state=grj40dmqj_1780&_afrLoop=3950078628628745#!, accessed April 11, 2017.*

[11] *Per Phone Communication with Abraham Razon, Environmental Engineer, City of Los Angeles, Bureau of Sanitation, March 21, 2016.*

[12] *LASAN, Hyperion Water Reclamation Plant, www.lacitysan.org/san/faces/wcnav_externalId/s-lsh-wwd-cw-p-hwrp?_adf.ctrl-state=grj40dmqj_1780&_afrLoop=3950078628628745#!, accessed April 11, 2017.*

primary effluent to consume organic pollutants. These micro-organisms are later harvested and removed as sludge.[13] The treated water from the HWRP is discharged through an outfall pipe 5 miles into the Santa Monica Bay and Pacific Ocean.[14] The discharge from the HWRP into Santa Monica Bay is regulated by the HWRP's National Pollutant Discharge Elimination System (NPDES) Permit issued under the Clean Water Act and is required to meet the Regional Water Quality Control Board's requirements for a recreational beneficial use.[15] Accordingly, the HWRP's effluent that is released to Santa Monica Bay is continually monitored to ensure that it meets or exceeds prescribed water quality standards. The City's Environmental Monitoring Division also monitors flows into the Santa Monica Bay.[16]

3. Project Impacts

a. Thresholds of Significance

In accordance with the State CEQA Guidelines Appendix G, the Project would have a significant impact related to wastewater if it would:

Threshold (a): Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board; or

Threshold (b): Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which would cause significant environmental effects; or

Threshold (c): Result in a determination by the wastewater treatment provider, which serves or may serve the project, that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments.

For this analysis, the Appendix G Thresholds listed above are relied upon. The analysis utilizes factors and considerations identified in the City's 2006 L.A. CEQA

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[13] *Ibid.*

[14] *California Regional Water Quality Control Board, Los Angeles Region, Order No. R4-2010-0200, NPDES No. CA0109991, Waste Discharge Requirements and National Pollutant Discharge Elimination System Permit for the City of Los Angeles, Hyperion Treatment Plant Discharge to the Pacific Ocean, www.lacitysan.org/san/sandocview?docname=cnt010051, accessed April 11, 2017.*

[15] *Ibid.*

[16] *LASAN, Environmental Monitoring www.lacitysan.org/san/faces/wcnav_externalId/s-lsh-wwd-wp-ec-em?_adf.ctrl-state=xsmd2kqwx_131&_afrLoop=21105064772207683#!, accessed April 12, 2017.*

Thresholds Guide, as appropriate, to assist in answering the Appendix G Threshold questions.

The L.A. CEQA Thresholds Guide identifies the following criteria to evaluate wastewater impacts:

- The project would cause a measureable increase in wastewater flows at a point where, and a time when, a sewer's capacity is already constrained or that would cause a sewer's capacity to become constrained; or
- The project's additional wastewater flows would substantially or incrementally exceed the future scheduled capacity of any one treatment plant by generating flows greater than those anticipated in the Wastewater Facilities Plan or General Plan and its elements.[17]

b. Methodology

The analysis of Project impacts on wastewater infrastructure and treatment capacity is based on the Infrastructure Assessment Report included in Appendix O of this Draft EIR. The assessment of the ability of the wastewater system to accommodate the Project was made based on existing conditions and a preliminary analysis provided by LA Sanitation. LASAN's approach consisted of the study of a worst-case scenario envisioning peak demands from the relevant facilities occurring simultaneously on the wastewater system. A combination of flow gauging data and computed results from the City's hydrodynamic model were used to project current and future impacts due to additional sewer discharge.

To evaluate potential impacts relative to wastewater treatment capacity, this analysis evaluates whether adequate treatment capacity within the Hyperion Service Area would be available to accommodate the Project based on the estimate of the Project's wastewater generation and data from LASAN. For the assessment of cumulative impacts on wastewater treatment, the projected cumulative wastewater generation is compared to the estimated available capacity of the Hyperion Service Area.

[17] *The Wastewater Facilities Plan referenced in the L.A. City CEQA Thresholds Guide has since been superseded by the Integrated Resources Plan.*

c. Analysis of Project Impacts

(1) Project Design Features

The Project would include water conservation features, which would also result in a reduction in wastewater. Such conservation features are included in Project Design Feature WAT-PDF-1, included in Section IV.L.1, Utilities and Service System—Water Supply and Infrastructure, of this Draft EIR.

(2) Project Impacts

Threshold (a): Would the Project exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?

The City of Los Angeles Department of Public Works provides wastewater collection and treatment services for the Project Site. LASAN is responsible for the operation of wastewater treatment facilities in the City. The main purpose of these treatment facilities is to remove potential pollutants from sewage in order to protect river and marine environments and public health.

As is the case under existing conditions, wastewater generated during operation of the Project would be collected and discharged into existing sewer mains and conveyed to the HWRP in Playa del Rey. Incoming wastewater to the treatment plant initially passes through screens and basins to remove coarse debris and grit. This is followed by primary treatment, which is a physical separation process where heavy solids settle to the bottom of tanks while oil and grease float to the top. These solids, called sludge, are collected, treated, and recycled. The portion of water that remains, called primary effluent, is treated through secondary treatment using a natural, biological approach. Living micro-organisms are added to the primary effluent to consume organic pollutants. These micro-organisms are later harvested and removed as sludge.[18] Treated water from the HWRP is discharged through an outfall pipe 5 miles into the Santa Monica Bay and Pacific Ocean.[19] The discharge from the HWRP into Santa Monica Bay is regulated by the HWRP's National Pollutant Discharge Elimination System Permit issued under the Clean Water Act and is required to meet the Regional Water Quality Control Board's requirements for a

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[18] *LASAN, Hyperion Water Reclamation Plant, www.lacitysan.org/san/faces/wcnav_externalId/s-lsh-wwd-cw-p-hwrp?_adf.ctrl-state=grj40dmqj_1780&_afrLoop=3950078628628745#!, accessed January 30, 2018.*

[19] *California Regional Water Quality Control Board, Los Angeles Region, Order No. R4-2010-0200, NPDES No. CA0109991, Waste Discharge Requirements and National Pollutant Discharge Elimination System Permit for the City of Los Angeles, Hyperion Treatment Plant Discharge to the Pacific Ocean.*

recreational beneficial use.[20] Accordingly, the HWRP's effluent that is released to Santa Monica Bay is continually monitored to ensure that it meets or exceeds prescribed water quality standards. The City's Environmental Monitoring Division also monitors flows into the Santa Monica Bay.[21]

The wastewater generated by the Project would be typical of residential and commercial uses. No industrial discharge into the wastewater system would occur as part of the Project as no such uses are proposed. As the HWRP is in compliance with the State's wastewater treatment requirements, the Project would not exceed the wastewater treatment requirements of the Regional Water Quality Control Board. **Therefore, the Project would not exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board, and impacts would be less than significant.**

Threshold (b): Would the Project require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

(a) Construction

Construction activities for the Project would result in wastewater generation from construction workers on-site. Wastewater generation would occur incrementally throughout construction of the Project. However, wastewater generation during construction of the Project would be temporary and nominal when compared with the Project Site wastewater generation under existing conditions. In addition, wastewater generated during construction would be offset by the existing retail and restaurant uses to be removed. Furthermore, construction workers would typically utilize portable restrooms, which would not contribute to wastewater flows to the City's wastewater system. Thus, wastewater generation from Project construction activities would not cause a measurable increase in wastewater flows.

The Project would require construction of new on-site infrastructure to serve new buildings, and potential upgrades and/or relocations of existing infrastructure. Construction impacts associated with wastewater infrastructure would primarily be confined to trenching for miscellaneous utility lines and connections to the public infrastructure. Installation of wastewater infrastructure would be limited to the on-site wastewater distribution, and minor

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[20] *California Regional Water Quality Control Board, Los Angeles Region, Order No. R4-2010-0200, NPDES No. CA0109991, Waste Discharge Requirements and National Pollutant Discharge Elimination System Permit for the City of Los Angeles, Hyperion Treatment Plant Discharge to the Pacific Ocean.*

[21] *LASAN, Environmental Monitoring, www.lacitysan.org/san/faces/wcnav_externalId/s-lsh-wwd-wp-ec-em?_adf.ctrl-state=xsmd2kqwx_131&_afrLoop=21105064772207683#!, accessed January 30, 2018.*

off-site work associated with connections to the public main. Although no upgrades to the public main are anticipated, minor off-site work would be required in order to connect the on-site distribution system to the public main. However, as set for in Project Design Feature TR-PDF-1 included in Section IV.J, Traffic, Access, and Parking, of this Draft EIR, a Construction Traffic Management Plan would be implemented to reduce any temporary pedestrian and traffic impacts. The Construction Traffic Management Plan would ensure safe pedestrian access and vehicle travel throughout the construction period. Overall, when considering impacts resulting from the installation of any required wastewater infrastructure, impacts would be of a relatively short-term duration and would cease to occur once the installation is complete.

(b) Operation

(i) Wastewater Generation

Wastewater generated by the Project was estimated using wastewater generation factors provided by LA Sanitation, for each of the proposed uses. As shown in Table IV.L.2-2 on page IV.L.2-13, it is estimated that the Project would generate a net increase in the average daily wastewater flow from the Project Site of approximately 75,555 gallons per day.

(ii) Wastewater Treatment

Wastewater generated by the Project would be conveyed via the existing wastewater conveyance systems for treatment at the HWRP. As described above, the HWRP has a capacity of 450 million gallons per day and current wastewater flow levels of approximately 275 million gallons per day. Accordingly, the remaining available capacity at the HWRP is approximately 175 million gallons per day.

As shown in Table IV.L.2-2, the Project would generate a net increase in wastewater flow from the Project Site of approximately 75,555 gallons per day, or approximately 0.076 million gallons per day. The Project's increase in average daily wastewater flow of 0.076 million gallons per day would represent approximately 0.04 percent of the current 175 million gallons per day remaining available capacity of the HWRP. Therefore, the Project-generated wastewater would be accommodated by the existing capacity of the HWRP, and impacts would be less than significant.

Various factors, including future development of new treatment plants, upgrades and improvements to existing treatment capacity, development of new technologies, etc., will ultimately determine the future available capacity of the Hyperion Service Area. While it is anticipated that future iterations of the IRP would provide for improvements to serve future population needs, it is conservatively assumed that no new improvements to the

Table IV.L.2-2
Estimated Project Wastewater Generation

Land Use	No. of Units/ Floor Area	Generation Rate (gpd/unit)[a]	Total Wastewater Generation (gpd)
Residential Apartments- Studio	97 du	75/du	7,275
Residential Apartments- 1 BR	386 du	110/du	42,460
Residential Apartments- 2 BR	175 du	150/du	26,250
Retail	13,650 sf	0.025/sf	342
Restaurant	13,650 sf	0.3/sf	4,095
Total Wastewater Generation			**80,422**
Less Existing to be Removed			**(4,867)**
Net Wastewater Generation (Proposed – Existing)			**75,555**

du = dwelling units
sf = square feet
[a] *Based on sewage generation rates provided by LA Sanitation (2012).*
Source: Fuscoe Engineering, Eyestone Environmental 2017.

wastewater treatment plants would occur prior to 2023. Thus, based on this conservative assumption, the 2023 effective capacity of the Hyperion Service Area has been assumed to be 550 million gallons per day. The Project's net increase in average daily wastewater generation of 0.076 million gallons per day would represent approximately 0.01 percent of the Hyperion Service Area's estimated future capacity of 550 million gallons per day and approximately 0.02 percent of the HWRP's design capacity of 450 million gallons per day. In addition, when accounting for existing flows within the Hyperion Service Area (338.2 million gallons per day) plus the 0.076 million gallons per day associated with the Project, only 61.5 percent of the Hyperion Service Area's capacity of 550 million gallons per day would be utilized. When accounting for current flows of approximately 275 million gallons per day and the Project's net increase of 0.076 million gallons per day to the HWRP, only 61.1 percent of the capacity of the HWRP would be utilized. Thus, the Project's additional wastewater flows would not substantially or incrementally exceed the future scheduled capacity of any treatment plant.

Based on the above, the Project would not require or result in the construction of new wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects, and impacts would be less than significant.

Threshold (c): Would the Project result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

As discussed above, the sewer mains adjacent to the Project Site ultimately connect to a network of sewer lines that convey wastewater to the HWRP.

Sewer service for the Project would be provided utilizing new or existing on-site sewer connections to the existing sewer lines adjacent to the Project Site. A Sewer Capacity Availability Request, included in the Infrastructure Assessment Report (see Appendix O of this Draft EIR), was obtained from LA Sanitation to evaluate the capability of the existing wastewater system to serve the Project's estimated wastewater flow. Based on the current approximate flow levels and design capacities in the sewer system, and the Project's estimated wastewater flow, the City determined that the existing capacity of the sewer mains serving the Project Site (an 8-inch main on Glencoe Avenue and an 8-inch main along the north side of the Marina Freeway) would be adequate to accommodate the additional wastewater infrastructure demand created by the Project. Specifically, the Project's total wastewater generation of 80,422 gallons per day (net generation of 75,555 gallons per day) would be below the approved discharge of up to 83,272 gallons per day. Further detailed gauging and evaluation, as required by LAMC Section 64.14, would be conducted as part of the normal permitting process to obtain final approval of sewer capacity and connection permit for the Project during the Project's permitting process. In addition, Project-related sanitary sewer connections and on-site infrastructure would be designed and constructed in accordance with applicable LA Sanitation and California Plumbing Code standards. Therefore, the Project would not cause a measurable increase in wastewater flows at a point where, and at a time when, a sewer's capacity is already constrained or that would cause a sewer's capacity to become constrained. The Project's additional wastewater flows would not substantially or incrementally exceed the future scheduled capacity of any treatment plant. **Therefore, the wastewater treatment provider, which serves the Project Site, would have adequate capacity to serve the Project's projected demand in addition to the provider's existing commitments. Impacts would be less than significant.**

d. Cumulative Impacts

The geographic context for the cumulative impact analysis on the wastewater conveyance system is the area that includes the Project Site and the related projects that would potentially utilize the same infrastructure as the Project. The geographic context for the cumulative impact analysis on wastewater treatment facilities is the Hyperion Service Area. The Project, in conjunction with growth forecasted in the Hyperion Service Area through 2023 (i.e., the Project buildout year), would generate wastewater, potentially

resulting in cumulative impacts on wastewater conveyance and treatment facilities. Cumulative growth in the greater Project area through 2023 includes specific known development projects, as well as general ambient growth projected to occur.

(1) Wastewater Generation

Development of the Project, in conjunction with the related projects, would result in an increase in the demand for sanitary sewer service in LA Sanitation's Hyperion Service Area. As identified in Section III, Environmental Setting, of this Draft EIR, there are 39 related projects located in the Project vicinity. While not all of these Projects would be served by the sewers serving the Project Site, these related projects would be located within the Hyperion Service Area. Forecasted growth from the related projects would generate an average daily wastewater flow of approximately 1,150,194 gallons per day or approximately 1.15 million gallons per day, as shown in Table IV.L.2-3 on page IV.L.2-16. Combined with the Project's net increase in wastewater generation of 71,837 gallons per day (0.072 million gallons per day), this equates to a cumulative increase in average daily wastewater flow of approximately 1,222,031 gallons per day, or 1.22 million gallons per day.

(2) Wastewater Treatment

Based on LASAN's average flow projections for the Hyperion Service Area, it is anticipated that the average flow in 2023, the Project's buildout year, would be 378 million gallons per day.[22] In addition, the Hyperion Service Area's total treatment capacity would be approximately 550 million gallons per day in 2023, conservatively assuming that the capacity would be the same as its existing capacity.

The Project wastewater flow of approximately 0.072 million gallons per day combined with the specific related projects flow of approximately 1.15 million gallons per day and the forecasted wastewater flow of 378 million gallons per day for the Hyperion Service Area would result in a total cumulative wastewater flow of approximately 380 million gallons per day. Based on the Hyperion Service Area's current capacity of approximately 550 million gallons per day, the Hyperion Service Area is expected to have adequate capacity to accommodate the cumulative wastewater flow to accommodate the Project and related projects. **Therefore, Project impacts on the wastewater treatment systems would not be cumulatively considerable, and cumulative impacts would be less than significant.**

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[22] *City of Los Angeles, Department of Public Works, Bureau of Sanitation, 2015 Urban Water Management Plan, Exhibit 4D. Based on a straight-line interpolation between the projected 2020 flow (374,000 acre-feet per year/333.7 million gallons per day) and the 2025 flow (456,000 acre-feet per year/406.8 million gallons per day) for the Hyperion Service Area.*

Table IV.L.2-3
Cumulative Wastewater Generation

No.	Project	Land Use	Size	Generation Factor[a,b]	Total Water Demand (gpd)
City of Los Angeles					
1	High-Turnover Restaurant 1020 E. Venice Blvd.	High-Turnover Restaurant	3,895 gsf	30 gpd/seat	3,895
2	New Apartment & Office Building 4140 S. Glencoe Ave.	Apartments	67 du	190 gpd/du	12,730
		Office	3,211 gsf	0.12 gpd/sf	385
3	D1 by CLG 4210 S. Del Rey Ave.	Condominiums	136 du	190 gpd/du	25,840
		Office	14,929 gsf	0.12 gpd/sf	1,791
4	4040 Del Rey Avenue Apartment Project 4040 S. Del Rey Ave.	Apartments	230 du	190 gpd/du	43,700
		Office	18,800 gsf	0.12 gpd/sf	2,256
5	Marina Island 5000 Beethoven St.	Apartments	236 du	190 gpd/du	44,840
		Office	18,077 gsf	0.12 gpd/sf	2,169
6	Teledyne Office Project 12964 W. Panama St.	Office	159,000 gsf	0.12 gpd/sf	19,080
7	New Three-Story Manufacturing & Retail 595 Venice Blvd.	Office	25,150 gsf	0.12 gpd/sf	3,018
		Retail	5,028 gsf	0.025 gpd/sf	126
		Other	5,930 gsf	0.05 gpd/sf	297
8	Westside Neighborhood School 12901 W. Coral Tree Pl.	School	68 stu	9 gpd/stu	612
9	12575 Beatrice Street Office Project 12575 Beatrice St.	Office	173,028 gsf	0.12 gpd/sf	20,763
		Restaurant	2,500 gsf	30 gpd/seat	2,500
		Retail	900 gsf	0.025 gpd/sf	23
10	Playa Vista Plant Site (Spruce Goose) Campus Center Dr./Bluff Creek Dr.	Production/Staging	1,129,900 gsf	0.05 gpd/sf	56,495
		Office	572,050 gsf	0.12 gpd/sf	68,646
11	Village at Playa Vista Phase II South of Jefferson Blvd./Westlawn Ave.	Condominiums	2,600 du	190 gpd/du	494,000
		Office	175,000 gsf	0.12 gpd/sf	21,000
		Retail	150,000 gsf	0.05 gpd/sf	7,500
		Community Serving	40,000 gsf	0.025 gpd/sf	1,000

Table IV.L.2-3 (Continued)
Cumulative Wastewater Generation

No.	Project	Land Use	Size	Generation Factor[a,b]	Total Water Demand (gpd)
12	Venice Place 1027 S. Abbot Kinney Blvd.	Hotel	92 rm	120 gpd/rm	11,040
		Retail	3,000 gsf	0.025 gpd/sf	75
		Restaurant	2,072 gsf	30 gpd/seat	2,072
13	Inclave Mixed-Use Project 4065–71 Glencoe Ave.	Creative Office	35,206 gsf	0.12 gpd/sf	4,225
		Specialty Retail	1,500 gsf	0.025 gpd/sf	38
		Apartments	49 du	190 gpd/du	9,310
14	DIR-2016-54-DB 12575 W. Venice Blvd.	Apartments	52 du	190 gpd/du	9,880
15	DIR-2016-304-DB-SPR 12444 W. Venice Blvd.	Apartments	77 du	190 gpd/du	14,630
		Retail	2,100 gsf	0.025 gpd/sf	53
16	Expansion of Charter School 4471 Inglewood Blvd.	School	800 stu	9 gpd/stu	7,200
17	Warehouse to Office 4721 S. Alla Rd.	Office	118,352 gsf	0.12 gpd/sf	14,202
18	Stella Phase 2 13488 W. Maxella Ave.	Apartments	65 du	190 gpd/du	12,350
19	Charter School 12870 W. Panama St.	School	532 stu	9 gpd/stu	4,788
20	DIR-2016-3999-DB 11830 W. Courtleigh Dr.	Apartments	29 du	190 gpd/du	5,510
Culver City					
1	Costco Expansion 13463 Washington Blvd.	Discount Club	31,023 gsf	0.025 gpd/sf	776
		Fueling Station	2 pumps		N/A
2	Washington/Tivoli Mixed-Use Project 13112–13114 Washington Blvd.	Retail/Restaurant	1,536 gsf	30 gpd/seat	1,536
		Office	3,702 gsf	0.12 gpd/sf	444
		Residential	2 du	190 gpd/du	380
3	Baldwin Site 12803 Washington Blvd.	Office	31,000 sf	0.12 gpd/sf	3,720
		Retail	6,000 gsf	0.025 gpd/sf	150

Table IV.L.2-3 (Continued)
Cumulative Wastewater Generation

No.	Project	Land Use	Size	Generation Factor[a,b]	Total Water Demand (gpd)
4	Kayvon Mixed-Use 12712–12718 Washington Blvd.	Residential	5 du	190 gpd/du	950
		Commercial/Office	968 gsf	0.12 gpd/sf	116
5	Market Hall—Washington/Centinela 12403 Washington Blvd.	Market Hall	60,000 gsf	0.025 gpd/sf	1,500
6	Grandview Apartments 4025 Grand View Blvd.	Apartments	36 du	190 gpd/du	6,840
7	Townhome Development 4118 Wade St.	Townhome	1 du	190 gpd/du	190
8	Pennylane Mixed-Use Washington/Inglewood 11924 Washington Blvd.	Restaurant	3,750 gsf	30 gpd/seat	3,750
		Specialty Retail	11,250 gsf	0.025 gpd/sf	281
		Apartments	98 du	190 gpd/du	18,620
9	New Two-Story Office Building 12038 Washington Blvd	Office	2,685 gsf	0.12 gpd/sf	322
10	Mixed-Use with Density Bonus 11281 Washington Pl.	Residential	14 du	190 gpd/du	2,660
		Retail	4,897 gsf	0.025 gpd/sf	122
11	Globe Housing Project 4044–4068 Globe Ave	Apartments	10 du	190 gpd/du	1,900
12	Washington Place Condominium 12464 Washington Pl.	Condominium	2 du	190 gpd/du	380
13	New Condominium 4234 Sawtelle Blvd.	Condominium	2 du	190 gpd/du	380
14	3906–3910 Sawtelle Boulevard 3906–3910 Sawtelle Blvd.	Condominium	1 du	190 gpd/du	190
L.A. County					
1	Courtyard by Marriott and Residence Inn Southeast Corner of Via Marina and Tahiti Way	Hotel	288 rm	120 gpd/rm	34,560
		Park	1.46 ac		N/A
2	Neptune Marina Via Marina and Marquesas Way	Apartments	390 du	190 gpd/du	74,100

Table IV.L.2-3 (Continued)
Cumulative Wastewater Generation

No.	Project	Land Use	Size	Generation Factor[a,b]	Total Water Demand (gpd)
3	AMLI MDR 4242 Via Marina	Apartments	297 du	190 gpd/du	56,430
		Commercial	3,600 gsf	0.05 gpd/sf	180
4	Pier 44 4625 & 4635 Admiralty Way	Specialty Grocery	13,625 gsf	0.025 gpd/sf	341
		Retail	41,680 gsf	0.025 gpd/sf	1,042
		Restaurant	9,978 gsf	30 gpd/seat	9,978
		Office	2,645 gsf	0.12 gpd/sf	317
		Marina	141 berths		N/A
5	Boat Central 13843 Fiji Way	Dry Stack Boat Storage	375 spaces		N/A
		Boatwright Facility	5,300 gsf		N/A
Related Total					**1,150,194**
Project Total					**71,837**
Related + Project Total					**1,222,031**

[a] *Cumulative wastewater generation was calculated using LASAN's sewage generation factors. Uses not listed are estimated by the closest type of use available.*

[b] *Conservatively assumes rate for 3-bedroom units for all dwelling units. In addition, number of seats for restaurant uses based on LADWP standard of 1 seat per 30 square feet.*

Source: Eyestone Environmental, 2017.

(3) Wastewater Infrastructure

As with the Project, new development projects occurring in the Project vicinity would be required to coordinate with LASAN via a sewer capacity availability request to determine adequate sewer capacity. In addition, new development projects would also be subject to LAMC Sections 64.11 and 64.12, which require approval of a sewer permit prior to connection to the sewer system. In order to connect to the sewer system, related projects in the City of Los Angeles would also be subject to payment of the City's Sewerage Facilities Charge. Payment of such fees would help to offset the costs associated with infrastructure improvements that would be needed to accommodate wastewater generated by overall future growth. If system upgrades are required as a result of a given project's additional flow, arrangements would be made between the related project and LA Sanitation to construct the necessary improvements. Furthermore, similar to the Project, each related project would be required to comply with applicable water conservation programs, including the City of Los Angeles Green Building Code. **Therefore, Project impacts on the City's wastewater infrastructure would not be cumulatively considerable, and cumulative impacts would be less than significant.**

e. Mitigation Measures

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

f. Level of Significance After Mitigation

Project-level and cumulative impacts related to wastewater generation, treatment, and infrastructure would be less than significant without mitigation.