IV. Environmental Impact Analysis

K.2 Utilities and Service Systems—Wastewater

1. Introduction

This section of the Draft EIR analyzes the potential impacts of the Project with regard 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 is available and would be available to meet the Project's estimated wastewater generation. The analysis is based, in part, on the *Onni Violet Street Project (2143 Violet Street, Los Angeles, CA 90021) Utility Infrastructure Technical Report: Water, Wastewater, and Energy* (Utility Report), dated February 27, 2018, which was prepared by KPFF Consulting Engineers and included in Appendix E to this Draft EIR, as well as the Water Supply Assessment (WSA) prepared for the Project by the Los Angeles Department of Water and Power (LADWP) in February 2019 and included as Appendix P of this Draft EIR.

2. Environmental Setting

a. Regulatory Framework

(1) 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 (or 0.125 gallon per flush for wall-mounted urinals). 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 0.5 gpm at 60 psi for nonresidential lavatory faucets; and 1.8 gpm at 60 psi for kitchen faucets.

(2) 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) addresses the facility needs of the City's wastewater program, recycled water, and urban runoff/stormwater management through the year 2020.[1] 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 runoff management strategies. The Capital Improvement Program provides anticipated capital, operation, maintenance, project timing, and implementation strategies for tracking and monitoring triggers.[2]

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

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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 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.*

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 is now developing the One Water LA 2040 Plan, which builds on the premise of the IRP as a collaborative approach to develop an integrated framework for managing the City's water resources, watersheds, and water facilities in an environmentally, economically, and socially beneficial manner.[4] As with the IRP, such efforts would be organized in phases. Phase I of the One Water Los Angeles 2040 Plan includes developing initial planning baselines and guiding principles for water management and citywide facilities planning in coordination with City departments, other agencies, and stakeholders, and was completed in 2015. Phase II includes development of technical studies and an updated facilities plan for stormwater and wastewater; and is anticipated to be complete in 2018. A year-long Programmatic Environmental Impact Report process was slated to begin in late 2018/early 2019.[5]

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[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 2012.*

[4] *LASAN, About One Water LA, www.lacitysan.org/san/faces/home/portal/s-lsh-es/s-lsh-es-owla/s-lsh-es-owla-au?_adf.ctrl-state=le24zdn44_5&_afrLoop=8232048882336511#!, accessed March 13, 2020.*

[5] *LASAN, One Water LA Plan, Plan Development, www.lacitysan.org/san/faces/wcnav_externalId/s-lsh-es-owla-au-aowla-pd?_adf.ctrl-state=iv9vc20aq_5&_afrLoop=4015307670184982#!, accessed March 13, 2020.*

(c) City Infrastructure 2010–2011 Report Card

The City Infrastructure 2010–2011 Report Card was developed to analyze the current conditions of key infrastructure and provide recommendations on how to maintain and strengthen the infrastructure. Seven key components of each infrastructure system were considered, including capacity, condition, funding, future need, operation and maintenance, public safety, and resilience. With regards to wastewater infrastructure, the report graded the wastewater collection infrastructure and wastewater treatment plants with a Grade B-, in which "minor changes required in one or more of the above areas to enable the infrastructure system to be fit for its current and anticipated future purposes." The recommended grade is a B+ for wastewater collection infrastructure and a B for wastewater treatment plants.

Based on the City Infrastructure 2010–2011 Report Card, to obtain a "B" grade, it was recommended that the City improve the wastewater treatment and reclamation facilities where opportunities exist in order to meet projected increase in flows, enhance efficiencies, and continue to protect the public and the environment. As indicated in the City Infrastructure 2010–2011 Report Card, based on the Wastewater Capital Improvement Program, 468 miles of sewers are listed to be rehabilitated, approximately 207 miles had been completed prior to the publication of the City Infrastructure 2010–2011 Report Card, and the remaining 261 miles of sewers listed in the Wastewater Capital Improvement Program are planned to be completed within 10 years of publication.[6]

(d) 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 greater than one 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

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[6] *City of Los Angeles, Department of Public Works, Infrastructure 2010–2011 Report Card.*

with the State Water Resources Control Board on February 18, 2009.[7] The City's Sewer System Management Plans were last updated in February 2017, which confirmed the City's Sewer System Management Plans are in full compliance with the Statewide General Waste Discharge Requirements and are effective.[8]

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.[9] 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.

(e) 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 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) additional discharge is proposed into an existing public sewer connection; or (3) a future sewer connection or future development is proposed that would generate 10,000 gallons or more of sewage per day. A Sewer Capacity Availability Review 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

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[7] *LASAN, Sewer System Management Plan: Hyperion Sanitary Sewer System, February 2017.*

[8] *LASAN, Sewer System Management Plan: Hyperion Sanitary Sewer System, February 2017.*

[9] *LASAN, Sewer System Management Plan: Hyperion Sanitary Sewer System, February 2017.*

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 is currently developed with seven buildings that comprise approximately 63,530 square feet of floor area and range in height from one to three stories. Existing uses include 6,983 square feet of office use, 25,739 square feet of retail use, 2,109 square feet of warehouse use, and 10 live-work units comprised of 28,699 square feet. The Project Site also includes two sheds and surface parking areas generally located on the southern half of the Project Site. Two buildings that comprise approximately 6,844 square feet and four live-work units, as well as two open sheds and surface parking spaces, would be removed. Based on LADWP billing data and as indicated in the Project's WSA included as Appendix P of this Draft EIR, the existing uses to be removed from the Project Site currently generate approximately 2,382 gallons per day (gpd) of wastewater flow.

(2) Wastewater Infrastructure

Sanitary sewer service to and from the Project area is owned and operated by the City of Los Angeles. The existing wastewater collection system includes more than 6,700 miles of public sewers, which serves a population of more than 4 million people and conveys approximately 400 million gallons per day (mgd) to the City's four wastewater treatment and water reclamation plants.[10]

As described in the Utility Report, there is an existing 8-inch vitrified clay pipe (VCP) sewer main in 7th Place. The Utility Report reported that the 8-inch sewer line in 7th Place has a capacity of 0.71 cubic feet per second (cfs) or 458,595 gpd. 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

[10] *LASAN, Sewers, www.lacitysan.org/san/faces/home/portal/s-lsh-wwd/s-lsh-wwd-cw/s-lsh-wwd-cw-s?_adf.ctrl-state=hgp4yycqp_5&_afrLoop=3961669001041971#!, accessed March 13, 2020.*

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.[11] The Hyperion Service Area is serviced by the Hyperion Sanitary Sewer System, which consists of the HWRP, the Donald C. Tillman Water Reclamation Plant, and the Los Angeles–Glendale Water Reclamation Plant.[12] The Terminal Island Service Area is served by the Terminal Island Treatment Plant.[13] The Project Site is located within the Hyperion Service Area.

(a) Hyperion Sanitary Sewer System

As shown in Table IV.K.2-1 on page IV.K.2-8, the existing design capacity of the Hyperion Sanitary Sewer System is approximately 550 mgd (consisting of 450 mgd at the HWRP, 80 mgd at the Donald C. Tillman Water Reclamation Plant, and 20 mgd at the Los Angeles–Glendale Water Reclamation Plant). Based on the One Water LA 2040 Plan–Wastewater Facilities Plan, the average wastewater flow rate in the Hyperion Sanitary Sewer System was 314 mgd in 2016 (consisting of 250 mgd at the HWRP, 47 mgd at the Donald C. Tillman Water Reclamation Plant, and 17 mgd at the Los Angeles–Glendale Water Reclamation Plant).[14] The One Water LA 2040 Plan–Wastewater Facilities Plan projects that annual average wastewater flows in the Hyperion Sanitary Sewer System would increase to 323 mgd in 2020, 348 mgd in 2030, and 358 in 2040. All other flow in the Hyperion Sanitary Sewer System, as well as biosolids from the upstream reclamation plants that are returned to the collection system are treated at the HWRP in Playa Del Rey.[15] As such, current flows are below the design capacity of approximately 550 mgd for the Hyperion Sanitary Sewer System.

(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.K.2-1, the HWRP has the capacity to treat approximately 450 mgd of wastewater for full secondary treatment and currently treats on average approximately 275 mgd.[16] As

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[11] *LASAN, Clean Water, www.lacitysan.org/san/faces/home/portal/s-lsh-wwd/s-lsh-wwd-cw?_adf.ctrl-state=ljvz6q49_5&_afrLoop=8241807351592071#!, accessed March 13, 2020.*

[12] *LASAN, Clean Water, www.lacitysan.org/san/faces/home/portal/s-lsh-wwd/s-lsh-wwd-cw?_adf.ctrl-state=ljvz6q49_5&_afrLoop=8241807351592071#!, accessed March 13, 2020.*

[13] *LASAN, Clean Water, www.lacitysan.org/san/faces/home/portal/s-lsh-wwd/s-lsh-wwd-cw?_adf.ctrl-state=ljvz6q49_5&_afrLoop=8241807351592071#!, accessed March 13, 2020.*

[14] *LASAN, One Water LA 2040 Plan—Volume 2: Wastewater Facilities Plan, January 2018.*

[15] *LASAN, Sewer System Management Plan: Hyperion Sanitary Sewer System, February 2017.*

[16] *LASAN, Hyperion Water Reclamation Plant, www.lacitysan.org/san/faces/wcnav_externalId/s-lsh-wwd-cw-p-hwrp?_adf.ctrl-state=ljvz6q49_5&_afrLoop=8241943613187783#!, accessed March 13, 2020.*

Table IV.K.2-1
Existing Capacity of Hyperion Sanitary Sewer System

	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: LASAN, Hyperion Water Reclamation Plant, www.lacitysan.org/san/faces/wcnav_externalId/s-lsh-wwd-cw-p-hwrp?_adf.ctrl-state=ljvz6q49_5&_afrLoop=824194361318 7783#!; Donald C. Tillman Water Reclamation Plant, www.lacitysan.org/san/faces/wcnav_externalId/s-lsh-wwd-cw-p-dctwrp?_adf.ctrl-state=ljvz6q49_5&_afrLoop=8242 084065330158#!; and Los Angeles–Glendale Water Reclamation Plant, www.lacitysan.org/san/faces/wcnav_externalId/s-lsh-wwd-cw-p-lagwrp?_adf.ctrl-state=ljvz6q49 _5&_afrLoop=8242559400318952#!, accessed March 13, 2020.

such, the HWRP is currently operating at approximately 61 percent of its capacity with a remaining available capacity of approximately 175 mgd. Based on the above, current flows to the HWRP are well below the design capacity of the HWRP of approximately 450 mgd.

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.[17] The treated water from the HWRP is discharged through a 5-mile outfall pipe at a depth of 190 feet into the Santa Monica Bay and Pacific Ocean.[18] The discharge from the HWRP into Santa Monica Bay is regulated by the HWRP's National Pollution 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

[17] *LASAN, Treatment Process, www.lacitysan.org/san/faces/home/portal/s-lsh-wwd/s-lsh-wwd-cw/s-lsh-wwd-cw-p/s-lsh-wwd-cw-p-tp?_adf.ctrl-state=ljvz6q49_458&_afrLoop=8243207467760408#!, accessed March 13, 2020.*

[18] *LASAN, Hyperion Virtual Tour, Hyperion Treatment Plant Tour, Ocean Outfall into the Bay, www.lacitysan.org/san/faces/home/portal/s-lsh-wwd/s-lsh-wwd-cw/s-lsh-wwd-cw-p/s-lsh-wwd-cw-p-hwrp/s-lsh-au-h?_adf.ctrl-state=ljvz6q49_596&_afrLoop=8243477885026291#!, accessed March 13, 2020.*

recreational beneficial use.[19] Accordingly, the HWRP's effluent that is released to Santa Monica Bay is continually monitored to ensure that it meets or exceeds prescribed standards. LASAN also monitors flows into the Santa Monica Bay.[20]

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): ***Require or result in the relocation or construction of new or expanded water, or wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities or expansion of existing facilities, the construction or relocation of which could cause significant environmental effects;[21]***

Threshold (b): ***(Not) 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*.**

In assessing impacts related to wastewater in this section, the City will use Appendix G as the thresholds of significance. The factors identified below from the *L.A. CEQA Thresholds Guide* will be used where applicable and relevant to assist in analyzing the Appendix G thresholds. 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 wastewater impacts:

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[19] *California Regional Water Quality Control Board, Los Angeles Region, Order No. R4-2017-0045, 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, effective April 1, 2017, through March 31, 2022.*

[20] *LASAN, Environmental Monitoring, www.lacitysan.org/san/faces/home/portal/s-lsh-wwd/s-lsh-wwd-cw/s-lsh-wwd-cw-p/s-lsh-wwd-cw-p-em?_adf.ctrl-state=ljvz6q49_793&_afrLoop=8243608662499891#!, accessed March 13, 2020.*

[21] *Refer to Section IV.K.1, Utilities and Service Systems—Water Supply and Infrastructure of this Draft EIR for a discussion of water supply impacts; the Project's Initial Study included as Appendix A of this Draft EIR and Section VI, Other CEQA Considerations, of this Draft EIR, for a discussion of stormwater impacts; Section IV.K.3,Utilities and Service Systems - Energy Infrastructure of this Draft EIR for a discussion of electric power and natural gas impacts; and Section VI, Other CEQA Considerations for a discussion of telecommunications facility impacts.*

- The project would cause a measurable 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.[22]

b. Methodology

The analysis of Project impacts on wastewater infrastructure and treatment capacity is based on the Utility Report and the WSA included in Appendices E and P of this Draft EIR, respectively. The anticipated wastewater flows to be generated by the Project are based on 100 percent of the water demand calculated in the WSA, less water for the parking structure which would flow to the storm drain and water for landscaping. Given the existing capacity of the sanitary sewer system in the vicinity of the Project Site and the Project Site's future wastewater generation, an assessment was made of the impacts to the sanitary sewers and the City's downstream sewers and treatment plants. Data regarding the existing physical features and capacity of the system is based on information provided by LASAN and included in the Utility Report.

To evaluate potential impacts relative to wastewater treatment capacity, this analysis evaluates whether adequate treatment capacity within the Hyperion Sanitary Sewer System 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 Sanitary Sewer System.

c. 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.K.1, Utilities and Service System—Water Supply and Infrastructure, of this Draft EIR.

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

d. Analysis of Project Impacts

Threshold (a): Would the Project require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?[23]

(1) Impact Analysis

(a) Construction

The Project would require construction of new on-site infrastructure to serve the new buildings and facilities of the proposed Project. Construction impacts associated with new wastewater infrastructure would primarily be confined to trenching for miscellaneous utility lines and connections to public infrastructure. Installation of wastewater infrastructure would be limited to on-site wastewater distribution, and minor off-site work associated with connections to the public main (no upgrades to the public main are anticipated). However, as set forth in Project Design Feature TR-PDF-1 included in Section IV.I, Transportation, 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 in general, and emergency vehicle access, in particular, throughout the construction period. Overall, when considering impacts resulting from the installation of any required wastewater infrastructure, all impacts are of a relatively short-term duration and would cease to occur once the installation is complete. Based on the above, construction activities would not have any adverse impact on wastewater conveyance or treatment infrastructure. In addition, most construction impacts associated with the installation of on-site wastewater facilities and off-site connections are expected to be confined to trenching, would be temporary in nature and would not result in significant environmental effects.

With respect to wastewater generation during construction, construction activities for the Project would not result in wastewater generation as construction workers would typically utilize portable restrooms, which would not contribute to wastewater flows to the City's wastewater system in the Project area. Thus, wastewater generation from Project construction activities is not anticipated to cause a measurable increase in wastewater

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[23] *Refer to Section IV.K.1, Utilities and Service Systems—Water Supply and Infrastructure, of this Draft EIR for a discussion of water supply impacts; the Project's Initial Study included as Appendix A of this Draft EIR and Section VI, Other CEQA Considerations, of this Draft EIR, for a discussion of stormwater impacts; Section IV.K.3, Utilities and Service Systems - Energy Infrastructure, of this Draft EIR for a discussion of electric power and natural gas impacts; and Section VI, Other CEQA Considerations, of this Draft EIR for a discussion of telecommunications facility impacts.*

flows in the Project area. Therefore, Project construction would not substantially or incrementally exceed the future scheduled capacity of any treatment plant by generating flows greater than those anticipated in the IRP.

As such, Project construction would not require or result in the relocation or construction of new or expanded wastewater treatment facilities, the construction or relocation of which could cause significant environmental effects. Therefore, Project construction impacts to the wastewater conveyance or treatment system would be less than significant.

(b) Operation

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 mgd, and current average wastewater flows are at approximately 275 mgd. Accordingly, the remaining available capacity at the Hyperion Treatment Plant is approximately 175 mgd. As shown in Table IV.K.2-2 on page IV.K.2-13, the Project would generate a net increase in wastewater flow from the Project Site of approximately 107,959 gpd, or approximately 0.1 mgd. The Project's increase in average daily wastewater flow of 0.1 mgd would represent approximately 0.06 percent of the current estimated 175 mgd of remaining available capacity at the HWRP. Therefore, the Project-generated wastewater would be accommodated by the existing capacity of the HWRP, and impacts would be less than significant.

Furthermore, wastewater flows would be typical of residential, office, and commercial developments. No industrial discharge into the wastewater system would occur and as discussed in the Initial Study, included as Appendix A of this Draft EIR, the Project would implement capture and reuse or biofiltration to reduce stormwater pollution on the Project Site in accordance with the City's Low Impact Development requirements. In accordance with the wastewater reduction requirements for new non-residential and high-rise residential construction set forth in the LAMC (Chapter IX, Article 9, Section 99.05.303.4), the Project would be required to demonstrate a 20-percent reduction in potable water use to comply with the City of Los Angeles Green Building Code. In addition, discharge of effluent from the HWRP into Santa Monica Bay is regulated by permits issued under the NPDES and is required to meet LARWQCB requirements. As LASAN monitors the treated wastewater, wastewater generated from the Project Site would not exceed wastewater treatment requirements of LARWQCB.

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 available capacity of the Hyperion Service Area in 2024, the year by which construction of the Project is expected to be completed. Future iterations of the

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

Land Use	No. of Units/ Floor Area	Water Demand Rate (gpd/unit)[c]	Demand (gpd)
EXISTING TO BE REMOVED[a]			
Existing Buildings	6,844 sf	N/A	2,382
Total Existing[b]			***2,382***
PROPOSED[a]			
Residential			
Live/Work 1-bd	144 du	185	26,640
Live/Work 2-bd, 1-bd + den, townhouse	149 du	225	33,525
Live/Work 3-bd, 2-bd + den	60 du	265	15,900
Base Demand Adjustment			6,428
Total Residential			***82,493***
Other			
Retail/Restaurant	1,077 seat	30	32,310
Office	187,374 sf	0.12	22,485
Artist Production Amenity Space	926 sf	0.03	28
Pool	1,800 sf		169
Spa	234 sf		22
Indoor Residential Amenities	9,601 sf	0.05	480
Base Demand Adjustment			3,308
Total Other			***58,802***
Cooling Tower			
Cooling Tower: Residential	700 ton	36	24,948
Cooling Tower: Office	700 ton	18	12,285
Cooling Tower: Retail	100 ton	25	2,457
Total Cooling Tower			***39,690***
Subtotal Wastewater Generation			**180,985**
Less Required Ordinances Water Savings[d]			(67,804)
Proposed Wastewater Generation			**113,181**
Less Existing to be Removed			(2,382)
Less Additional Conservation[k]			(2,840)
Net Wastewater Generation[l]			**107,959**

du = dwelling units

bd = bedroom

sf = square feet

gpd = gallons per day

[a] *Provided by City of Los Angeles Department of City Planning in the Request for Water Supply Assessment letter and Scope Confirmation e-mail. See Appendix A of WSA.*

[b] *The existing wastewater generation is based on LADWP water billing data.*

[c] *Proposed indoor water uses are based on 2012 LASAN Sewer Generation Rates.*

[d] *The proposed development would conform to City of Los Angeles Ordinance No. 184248, 2013*

Table IV.K.2-2 (Continued)
Estimated Project Wastewater Generation

Land Use	No. of Units/ Floor Area	Water Demand Rate (gpd/unit)[c]	Demand (gpd)

California Plumbing Code, 2013 California Green Building Code (CALGreen) 2014 Los Angeles Plumbing Code, and 2014 Los Angeles Green Building Code.

[e] *Base Demand Adjustment is the estimated savings due to Ordinance No. 180822 accounted for in the current version of LASAN Sewer Generation Rates.*

[f] *Includes 21,858 sf of new retail/restaurant use and conversion of 5,055 sf of existing retail/warehouse uses.*

[g] *Landscaping water use is estimated per CCR Title 23, Division 2, Chapter 2.7, Model Water Efficient Landscape Ordinance.*

[h] *Auto parking water uses are based on LASAN Generation Rates table, and 12 times/year cleaning assumption.*

[i] *Residential is assumed to operate 24 hours/day, 7 days/week, and 55 percent of chiller capacity. Office is assumed to operate 14 hours/day, 5 days/week, and 65 percent of chiller capacity. Retail is assumed to operate 14 hours/day, 7 days/week, and 65 percent of chiller capacity.*

[j] *Water conservation due to additional conservation commitments agreed to by the Applicant. Table II of the WSA provides a detailed breakdown of these conservation commitments and is included in Appendix P of this Draft EIR.*

[l] *Wastewater generation equals 100 percent of water demand less water for the parking structure which would flow to the storm drain and water for landscaping.*

Source: LADWP, Water Supply Assessment—2143 Violet Street Project, February 26, 2019.

Integrated Resources Plan, such as the One Water LA 2040 Plan discussed above, would provide for improvements beyond 2020 through 2040 to serve future population needs. It is conservatively assumed that no new improvements to the wastewater treatment plants would occur prior to 2024. Thus, based on this conservative assumption, the 2024 effective capacity of the Hyperion Sanitary Sewer System would continue to be approximately 550 mgd. Similarly, the capacity of the HWRP in 2024 would continue to be 450 mgd.

Based on LASAN's average flow projections for the HWRP, it is anticipated that average flows in 2024 would be approximately 322.07 mgd.[24] Accordingly, the future remaining available capacity in 2024 would be approximately 127.93 mgd. The Project's increase in average daily wastewater flow of 0.1 mgd would represent approximately 0.08 percent of the estimated future remaining available capacity of 127.93 mgd at the

[24] *Los Angeles Department of Water and Power, 2015 Urban Water Management Plan, Exhibit 4D, City of Los Angeles Wastewater Treatment Plants Average Dry-Weather Flows, Reuse and Discharge Method. For FY 2024/2025, average flows to the HWRP are projected to be approximately 361,000 acre feet per year or 322.07 mgd.*

HWRP. Therefore, during operation, the Project-generated wastewater would be accommodated by the future capacity of the HWRP, and impacts would be less than significant.

Even with the conservative assumption that no new improvements to the wastewater treatment plants would occur prior to 2024, the proposed Project's net increase in average daily wastewater generation of 0.1 mgd would represent approximately 0.02 percent of the HWRP's design capacity of 450 mgd. The Project's net increase in average daily wastewater generation of 0.1 mgd plus the current average flows of approximately 275 mgd to the HWRP would represent approximately 61.1 percent of the HWRP's assumed future capacity of 450 mgd. With regard to future flows, the Project's net increase of 0.1 mgd plus the projected flows of approximately 322.07 mgd to the HWRP would represent approximately 71.6 percent of the HWRP's assumed future capacity of 450 mgd.

In addition, the proposed Project's net increase in average daily wastewater generation of 0.1 mgd would represent approximately 0.013 percent of the Hyperion Sanitary Sewer System's assumed future capacity of 550 mgd. The proposed Project's net increase in average daily wastewater generation of 0.1 mgd plus the current flows of approximately 300 mgd to the Hyperion Sanitary Sewer System would represent approximately 54.6 percent of the Hyperion Service Area's assumed future capacity of 550 mgd. With regard to future flows, the proposed Project's net increase in average daily wastewater generation of 0.1 mgd plus the future flows of approximately 406.82 mgd[25] to the Hyperion Sanitary Sewer System would represent approximately 74 percent of the Hyperion Sanitary Sewer System's assumed future capacity of 550 million gallons per day.

Furthermore, 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. As discussed above, there is an existing 8-inch sewer line in 7th Place that would connect to a network of sewer lines and ultimately convey wastewater to the HWRP. This sewer line has a capacity of 0.71 cfs or 458,595 gpd. The Project's net increase in wastewater generation is approximately 107,959 gpd. This represents approximately 24 percent of the line's capacity. As required by LAMC Section 64.15, the Project would submit a Sewer Capacity Availability Request to LASAN to evaluate the capability of the existing wastewater system and obtain approval to discharge the Project's wastewater to the existing 8-inch sewer line in 7th Place. Further detailed gauging and evaluation, as

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[25] *Los Angeles Department of Water and Power, 2015 Urban Water Management Plan, Exhibit 4D, City of Los Angeles Wastewater Treatment Plants Average Dry-Weather Flows, Reuse and Discharge Method. For FY 2024/2025, average flows to the Hyperion Sanitary Sewer System (comprised of the HWRP, the Donald C. Tillman Water Reclamation Plant, and the Los Angeles-Glendale Water Reclamation Plant) are projected to be approximately 456,000 acre feet per year or 406.82 mgd.*

required by LAMC Section 64.14, would be conducted 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 LASAN 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.

As such, based on the above, operation of the Project would not require or result in the construction of new wastewater treatment facilities or expansion of existing facilities, the construction of which would cause significant environmental effects. Therefore, impacts would be less than significant, and mitigation measures are not required.

(2) Mitigation Measures

Project impacts with regard to wastewater treatment facilities would be less than significant with compliance with regulatory measures and implementation of Project Design Features. Therefore, no mitigation measures are required.

(3) Level of Significance After Mitigation

Project impacts related to wastewater treatment facilities would be less than significant without mitigation.

Threshold (b): 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?

(1) Impact Analysis

As discussed above, based on the temporary nature of construction of new on-site infrastructure and minor off-site work associated with connections to the public main line, as well as operational wastewater generation, the Project would not constrain existing and future scheduled wastewater treatment and infrastructure capacity. In addition, the Project would obtain approval from LASAN to discharge the Project's wastewater flows to the existing sewer line in 7th Place and comply with relevant design requirements, as well as applicable sanitation and plumbing standards. Furthermore, the Project's net increase in average daily wastewater generation of 0.1 mgd would represent approximately 0.013 percent of the Hyperion Sanitary Sewer System's assumed future capacity of 550 mgd. Therefore, there is adequate treatment capacity to serve the Project's projected

demand in addition to existing LASAN commitments. **As such, the Project would 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, and impacts would be less than significant.**

(2) Mitigation Measures

Project impacts with regard to wastewater treatment capacity would be less than significant with compliance with regulatory measures and implementation of Project Design Features. Therefore, no mitigation measures are required.

(3) Level of Significance After Mitigation

Project impacts related to wastewater treatment capacity would be less than significant without mitigation.

e. Cumulative Impacts

(1) Impact Analysis

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 2024 (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 2024 includes specific known development projects, as well as general ambient growth projected to occur.

As discussed in Section III, Environmental Setting, of this Draft EIR, the projected growth reflected by Related Project Nos. 1 through 74 is a conservative assumption, as some of the related projects may not be built out by 2024 (i.e., the Project buildout year), may never be built, or may be approved and built at reduced densities. To provide a conservative forecast, the future baseline forecast assumes that Related Project Nos. 1 through 74 are fully built out by 2024, unless otherwise noted.

(a) Wastewater Treatment Capacity

Development of the Project, in conjunction with the related projects, would result in an increase in the demand for sanitary sewer service in the Hyperion Service Area. As

identified in Section III, Environmental Setting, of this Draft EIR, there are 74 related projects located in the Project vicinity. Assuming that each of these related projects would connect to some or all of the City sewers serving the Project Site, forecasted growth from the related projects would generate an average daily wastewater flow of approximately 5,178,367 gpd or approximately 5.18 mgd, as shown in Table IV.K.2-3 on page IV.K.2-19. Combined with the Project's net increase in wastewater generation of 107,959 gpd (0.1 mgd), this equates to a cumulative increase in average daily wastewater flow of approximately 5,286,326 gpd, or 5.29 mgd.

Based on LASAN's average flow projections for the Hyperion Sanitary Sewer System, it is anticipated that the average flow in 2024 would be approximately 406.82 mgd.[26] In addition, the Hyperion Sanitary Sewer System's total treatment capacity is conservatively estimated to be approximately 550 mgd in 2024, which is the same as its existing capacity.

The combined wastewater flow of the Project and related projects of approximately 5.29 mgd and the forecasted 2024 wastewater flow of 406.82 mgd for the Hyperion Sanitary Sewer System would result in a total wastewater flow of approximately 412.1 mgd. Based on the Hyperion Sanitary Sewer System's estimated future capacity of approximately 550 mgd, the Hyperion Sanitary Sewer System is expected to have adequate capacity to accommodate the wastewater flow of approximately 412.1 mgd aggregated from the Project, related projects, and forecasted growth by 2024. The 5.29 mgd of cumulative plus Project wastewater would represent approximately 0.96 percent of the Sanitary Sewer System's existing design capacity of 550 mgd. **Therefore, because the Hyperion Sanitary Sewer System has adequate capacity to treat the Project and related projects, Project impacts would not be cumulatively considerable, and cumulative impacts would be less than significant.**

(b) Wastewater Infrastructure

As with the Project, new development projects occurring in the vicinity of the Project Site would be required to coordinate with LASAN via the submittal of a Sewer Capacity Availability Request to determine adequate sewer capacity pursuant to LAMC Section 64.15. 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

[26] *Los Angeles Department of Water and Power, 2015 Urban Water Management Plan, Exhibit 4D, City of Los Angeles Wastewater Treatment Plants Average Dry-Weather Flows, Reuse and Discharge Method. For FY 2024/2025, average flows to the Hyperion Sanitary Sewer System (comprised of the HWRP, the Donald C. Tillman Water Reclamation Plant, and the Los Angeles-Glendale Water Reclamation Plant) are projected to be approximately 456,000 acre feet per year or 406.82 mgd.*

Table IV.K.2-3
Cumulative Wastewater Generation

No.	Project	Land Use	Size	Generation Factor[a,b]	Total Daily Wastewater Generation (gpd)
1	540 S. Santa Fe Ave.	Office	65,800 sf	0.120 gpd/sf	7,896
2	601 S. Main St.	Apartment	452 du	190 gpd/du	85,880
		Retail	25,000 sf	0.025 gpd/sf	625
3	150 N. Los Angeles St.	Office	713,000 sf	0.120 gpd/sf	85,560
		Retail	35,000 sf	0.025 gpd/sf	875
		Child Care (2,500 sf)[c]	34 ch	9 gpd/ch	306
4	534 S. Main St.	Apartment	160 du	190 gpd/du	30,400
		Retail	18,000 sf	0.025 gpd/sf	450
		Restaurant (3,500 sf)	140 seats	30 gpd/seat	4,200
		Fast-Food Restaurant	3,500 sf	25 gpd/seat	87,500
5	1057 S. San Pedro St.	Office	294,600 sf	0.120 gpd/sf	35,352
		Retail	224,900 sf	0.050 gpd/sf	11,245
		Cinema	744 seats	3 gpd/seat	2,232
		Apartment	877 du	190 gpd/du	166,630
		Condominium	68 du	190 gpd/du	12,920
		Hotel	210 rm	120 gpd/rm	25,200
		Medical Office	77,300 sf	0.25 gpd/sf	19,325
6	1525 E. Industrial St.	Apartment	328 du	190 gpd/du	62,320
		Office	27,300 sf	0.120 gpd/sf	3,276
		Retail	6,400 sf	0.025 gpd/sf	160
		Restaurant (5,700 sf)	228 seats	30 gpd/seat	6,840
7	950 E. 3rd St.	School	532 stu	11 gpd/stu	5,852
		Retail	30,100 sf	0.050 gpd/sf	1,505
		Apartment	635 du	190 gpd/du	120,650

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

No.	Project	Land Use	Size	Generation Factor[a,b]	Total Daily Wastewater Generation (gpd)
8	2051 E. 7th St.	Apartment	320 du	190 gpd/du	60,800
		Retail	15,000 sf	0.025 gpd/sf	375
		Restaurant (5,000 sf)	200 seats	30 gpd/seat	6,000
9	963 E. 4th St.	Office	79,000 sf	0.120 gpd/sf	9,480
		Retail	25,000 sf	0.025 gpd/sf	625
		Restaurant (20,000 sf)	800 seats	30 gpd/seat	24,000
10	826 S. Mateo St.	Condominium	90 du	190 gpd/du	17,100
		Retail	11,000 sf	0.025 gpd/sf	275
		Restaurant (5,600 sf)	224 seats	30 gpd/seat	6,720
11	2030 E. 7th St.	Office	243,600 sf	0.120 gpd/sf	29,232
		Retail	40,000 sf	0.025 gpd/sf	1,000
12	360 S. Alameda St.	Apartment	55 du	190 gpd/du	10,450
		Retail	2,500 sf	0.025 gpd/sf	63
		Creative Office	6,300 sf	0.120 gpd/sf	756
13	649 S. Wall St.	Assisted Living[d]	55 beds	70 gpd/bed	3,850
		Office (55 emp)[e]	8,800 sf	0.120 gpd/sf	1,056
14	410 Center St.	Office	110,000 sf	0.120 gpd/sf	13,200
15	500 S. Mateo St.	Restaurant (12,820 sf)	513 seats	30 gpd/seat	15,390
16	400 S. Alameda St.	Hotel	66 rm	120 gpd/rm	7,920
		Retail	840 sf	0.025 gpd/sf	21
		Restaurant (2,130 sf)	85 seats	30 gpd/seat	2,550
17	719 E. 5th St.	Apartment	160 du	190 gpd/du	30,400
		Retail	7,500 sf	0.025 gpd/sf	188
18	2130 E. Violet St.	Office	94,000 sf	0.120 gpd/sf	11,280
		Retail	7,450 sf	0.025 gpd/sf	186
19	929 E. 2nd St.	Mixed Use Private Club[f]	48,900 sf	0.350 gpd/sf	17,115

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

No.	Project	Land Use	Size	Generation Factor[a,b]	Total Daily Wastewater Generation (gpd)
20	1800 E. 7th St.	Apartment	122 du	190 gpd/du	23,180
		Office	13,600 sf	0.120 gpd/sf	1,632
21	1722 E. 16th St.	Restaurant (8,151 sf)	326 seats	30 gpd/seat	9,780
22	454 E. Commercial St.	Bus Facility[g]	87,120 sf	0.020 gpd/sf	1,742
23	118 S. Astronaut E.S. Onizuka St.	Apartment	77 du	190 gpd/du	14,630
24	555 S. Mateo St.	Retail	153,000 sf	0.050 gpd/sf	7,650
25	1000 S. Santa Fe. Ave.	Private Club[f]	59,000 sf	0.350 gpd/sf	20,650
		Guest Rooms	48 rm	120 gpd/rm	5,760
26	2110 Bay St.	Apartment	110 du	190 gpd/du	20,900
		Office	113,000 sf	0.120 gpd/sf	13,560
		Retail	43,700 sf	0.025 gpd/sf	1,093
27	330 S. Alameda St.	Apartment	186 du	190 gpd/du	35,340
		Commercial	22,000 sf	0.050 gpd/sf	1,100
28	668 S. Alameda St.	Apartment	475 du	190 gpd/du	90,250
		Commercial	84,000 sf	0.050 gpd/sf	4,200
29	520 Mateo St.	Live/Work	475 units	190 gpd/du	90,250
		Office	105,000 sf	0.120 gpd/sf	12,600
		Retail	10,000 sf	0.025 gpd/sf	250
		Restaurant (10,000 sf)	400 sf	30 gpd/seat	12,000
30	717 Maple Ave.	Apartment	452 du	190 gpd/du	85,880
		Retail	14,000 sf	0.025 gpd/sf	350
31	433 S. Main St.	Condominium	191 du	190 gpd/du	36,290
		Retail	5,300 sf	0.025 gpd/sf	133
		Coffee Shop	900 sf	0.720 gpd/sf	648
32	676 Mateo St.	Apartment	185 du	190 gpd/du	35,150
		Commercial	27,000 sf	0.050 gpd/sf	1,350

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

No.	Project	Land Use	Size	Generation Factor[a,b]	Total Daily Wastewater Generation (gpd)
33	732 Wall St.	Apartment	323 du	190 gpd/du	61,370
		Office	53,200 sf	0.120 gpd/sf	6,384
		Retail	4,400 sf	0.025 gpd/sf	110
		Wholesale/Storage	63,600 sf	0.030 gpd/sf	1,908
		Restaurant (4,420 sf)	177 seats	30 gpd/seat	5,310
		Event Space[h]	9,200 sf	0.350 gpd/sf	3,220
34	333 S. Alameda St.	Apartment	994 du	190 gpd/du	188,860
		Retail	993,000 sf	0.050 gpd/sf	49,650
35	1129 E. 5th St.	Retail	27,000 sf	0.025 gpd/sf	675
		Restaurant (31,700 sf)	1,268 seats	30 gpd/seat	38,040
		Hotel	113 rm	120 gpd/rm	13,560
		Apartment	129 du	190 gpd/du	24,510
		Art School (3,430 sf)[i]	36 stu	11 gpd/stu	396
		Art Space[j]	10,340 sf	0.030 gpd/sf	310
36	2650 E. Olympic Blvd.	Apartment	1,000 du	190 gpd/du	190,000
		Restaurant (46,000 sf)	1,840 seats	30 gpd/seat	55,200
		Office	230,000 sf	0.120 gpd/sf	27,600
37	670 Mesquit St.	Hotel	236 rm	120 gpd/rm	28,320
		Apartment	308 du	190 gpd/du	58,520
		Retail	79,200 sf	0.025 gpd/sf	1,980
		Restaurant (89,600 sf)	3,584 seats	30 gpd/seat	107,520
		Event Space[h]	93,600 sf	0.350 gpd/sf	32,760
		Gym[k]	62,200 sf	0.650 gpd/sf	40,430
		Grocery/Food Hall[l]	56,900 sf	0.050 gpd/sf	2,845
		Office	944,100 sf	0.120 gpd/sf	113,292
38	237 S. Los Angeles St.	Sports Complex[m]	43,000 sf	0.200 gpd/sf	8,600

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

No.	Project	Land Use	Size	Generation Factor[a,b]	Total Daily Wastewater Generation (gpd)
39	640 S. Santa Fe Ave.	Office	91,200 sf	0.120 gpd/sf	10,944
		Retail	9,400 sf	0.025 gpd/sf	235
		Restaurant (6,600 sf)	264 seats	30 gpd/seat	7,920
40	1745 E. 7th St.	Apartment	57 du	190 gpd/du	10,830
		Commercial	6,000 sf	0.050 gpd/sf	300
41	940 E. 4th St.	Apartment	93 du	190 gpd/du	17,670
		Office	6,000 sf	0.120 gpd/sf	720
		Retail	12,300 sf	0.025 gpd/sf	308
42	609 E. 5th St.	Apartment	151 du	190 gpd/du	28,690
43	713 E. 5th St.	Apartment	51 du	190 gpd/du	9,690
44	1000 S. Mateo St.	Apartment	113 du	190 gpd/du	21,470
		Commercial	134,000 sf	0.050 gpd/sf	6,700
45	2159 E. Bay St.	Creative Office	202,954 sf	0.120 gpd/sf	24,354
		Retail/Restaurant (16,000 sf)	640 seats	30 gpd/seat	19,200
		Event/Meeting Space[n]	3,235 sf	0.120 gpd/sf	388
46	401 S. Hewitt St.	Office	255,500 sf	0.120 gpd/sf	30,660
		Retail	4,970 sf	0.025 gpd/sf	124
47	552 S. San Pedro St.	Affordable Housing	407 du	190 gpd/du	77,330
		Retail	12,300 sf	0.050 gpd/sf	615
48	1005 S. Mateo St.	Industrial Park	94,800 sf	0.050 gpd/sf	4,740
49	1800 E. 1st St.	Apartment	65 du	190 gpd/du	12,350
		Retail	5,000 sf	0.025 gpd/sf	125
50	755 S. Los Angeles St.	Retail	16,700 sf	0.025 gpd/sf	418
		Office	60,200 sf	0.120 gpd/sf	7,224
		Restaurant (27,000 sf)	1,080 seats	30 gpd/seat	32,400

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

No.	Project	Land Use	Size	Generation Factor[a,b]	Total Daily Wastewater Generation (gpd)
51	601 S. Central Ave.	Apartment	236 du	190 gpd/du	44,840
		Retail	12,000 sf	0.025 gpd/sf	300
52	527 Colyton St.	Condominium	310 du	190 gpd/du	58,900
		Retail	11,400 sf	0.050 gpd/sf	570
		Production Space[o]	11,700 sf	0.050 gpd/sf	585
53	1100 E. 5th St.	Apartment (Live/Work)	220 du	190 gpd/du	41,800
		Commercial	49,000 sf	0.050 gpd/sf	2,450
54	600 S. San Pedro St.	Apartment	303 du	190 gpd/du	57,570
		Retail	20,000 sf	0.025 gpd/sf	500
55	655 S. San Pedro St.	Apartment	81 du	190 gpd/du	15,390
56	656 S. Stanford Ave.	Apartment	82 du	190 gpd/du	15,580
57	641 Imperial St.	Residential	140 du	190 gpd/du	26,600
		Office	14,700 sf	0.120 gpd/sf	1,764
58	2901 E. Olympic Blvd.	Apartment	4,400 du	190 gpd/du	836,000
		Retail	185,000 sf	0.050 gpd/sf	9,250
		Office	125,000 sf	0.120 gpd/sf	15,000
		Medical Office	25,000 sf	0.250 gpd/sf	6,250
		Daycare (15,000 sf)[c]	205 ch	9 gpd/ch	1,845
		Library	15,000 sf	0.050 gpd/sf	750
59	2407 E. 1st St.	Apartment	50 du	190 gpd/du	9,500
		Office	8,500 sf	0.120 gpd/sf	1,020
		Retail	3,400 sf	0.025 gpd/sf	85
60	810 E. 3rd St.	Apartment	4 du	190 gpd/du	760
		Restaurant (3,500 sf)	140 seats	30 gpd/seat	4,200
		Retail	6,200 sf	0.025 gpd/sf	155

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

No.	Project	Land Use	Size	Generation Factor[a,b]	Total Daily Wastewater Generation (gpd)
61	1206 E. 6th St.	Apartment	1,305 du	190 gpd/du	247,950
		Condominium	431 du	190 gpd/du	81,890
		Hotel	510 rm	120 gpd/rm	61,200
		Office	253,514 sf	0.120 gpd/sf	30,422
		School (29,316 sf)	300 stu	11 gpd/stu	3,300
		Commercial	127,609 sf	0.050 gpd/sf	6,380
		Live Theater	400 seats	3 gpd/seat	1,200
62	554 S. San Pedro St.	Apartment	303 du	190 gpd/du	57,570
		Commercial	19,900 sf	0.050 gpd/sf	995
63	443 S. Soto St.	School	625 stu	11 gpd/stu	6,875
64	1024 S. Mateo St.	Apartment	104 du	190 gpd/du	19,760
		Office	102,000 sf	0.120 gpd/sf	12,240
		Restaurant (16,300 sf)	652 seats	30 gpd/seat	19,560
		Retail	5,830 sf	0.025 gpd/sf	146
		Industrial	5,500 sf	0.050 gpd/sf	275
65	755 S. Wall St.	Office	53,200 sf	0.120 gpd/sf	6,384
		Apartment	323 du	190 gpd/du	61,370
		Retail	4,400 sf	0.025 gpd/sf	110
66	508 E. 4th St.	Apartment	41 du	190 gpd/du	7,790
67	2001 E. Washington Blvd.	Industrial	187,000 sf	0.050 gpd/sf	9,350
68	300 S. Main St.	Apartment	471 du	190 gpd/du	89,490
		Retail	5,190 sf	0.050 gpd/sf	260
		Restaurant (27,800 sf)	1,112 seats	30 gpd/seat	33,360
69	100 S. Boyle Ave.	Affordable Housing	44 du	190 gpd/du	8,360
		Retail	8,000 sf	0.025 gpd/sf	200
70	2053 E. 7th St.	Hotel (53,400 sf)[p]	82 rm	120 gpd/rm	9,840

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

No.	Project	Land Use	Size	Generation Factor[a,b]	Total Daily Wastewater Generation (gpd)
71	401 E. 7th St.	Affordable Housing	99 du	190 gpd/du	18,810
72	443 S. Soto St.	Elementary School	625 stu	9 gpd/stu	5,625
73	777 S. Alameda St.	Restaurant (117,375 sf)	4,695 seats	30 gpd/seat	140,850
		Retail	66,155 sf	0.025 gpd/sf	1,654
		Office	850,444 sf	0.120 gpd/sf	102,053
		Hotel	125 rm	120 gpd/rm	15,000
74	2124–2132 E. 7th Pl.	Retail/Warehouse-Restaurant conversion (5,055 sf)	202 seats	30 gpd/seat	6,060
Related Projects Wastewater Generation					**5,178,367**
Project Net Wastewater Generation					**107,959**
Total Wastewater Generation for Related Projects and Project					**5,286,326**

ch = children

du = dwelling units

emp = employees

rm = rooms

sf = square feet

stu = students

[a] *This analysis is based on sewage generation rates provided by LASAN's Sewerage Facilities Charge, Sewage Generation Factor for Residential and Commercial Categories, effective April 6, 2012.*

[b] *This analysis conservatively assumes that all dwelling units are 3-bedroom units. In addition, the seat count for restaurant uses assumes 1 seat per 25 square feet.*

[c] *The Elementary School rate of 73 square feet per student or child is used to calculate the number of students/children generated by this use. The rate is provided by the California Department of Education, Report on Complete Schools, May 23, 2007. Report is available for download at www.cde.ca.gov/ls/fa/sf/completesch.asp, accessed March 13, 2020.*

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

No.	Project	Land Use	Size	Generation Factor[a,b]	Total Daily Wastewater Generation (gpd)

[d] *Sewage generation rates provided by LASAN do not include a rate for "Assisted Living" uses. Therefore, the most comparable land use rate of 70 gallons per day per bed for "Rest Home" is applied.*

[e] *The rate of 160 square feet per employee for the Los Angeles market is used to calculate the square footage of the proposed office space. This rate is provided in Cushman & Wakefied's Space Matters—Occupancy Report, published on May 9, 2018. The report is accessible and available for download at www.cushmanwakefield.com/en/united-states/insights/space-matters, accessed March 13, 2020.*

[f] *Sewage generation rates provided by LASAN do not include a rate for "Private Club" uses. Therefore, the most comparable land use rate of 350 gallons per 1,000 square feet for "Dancing Area (of Bars or Nightclub)" is applied.*

[g] *Sewage generation rates provided by LASAN do not include a rate for "Bus Facility" uses. Therefore, the most comparable land use rate of 20 gallons per 1,000 square feet for "Auto Parking" is applied.*

[h] *Sewage generation rates provided by LASAN do not include a rate for "Event Space" uses. Therefore, the most comparable land use rate of 350 gallons per 1,000 square feet for "Banquet Room" is applied.*

[i] *The High School rate of 95 square feet per student is used to calculate the number of students generated by this use. The rate is provided by the California Department of Education, Report on Complete Schools, May 23, 2007. Report is available for download at www.cde.ca.gov/ls/fa/sf/completesch.asp.*

[j] *Sewage generation rates provided by LASAN do not include a rate for "Art Space" uses. Therefore, the most comparable land use rate of 30 gallons per 1,000 square feet for "Museum: All Area" is applied.*

[k] *The rate of 650 gallons per 1,000 square feet for "Health Club/Spa" is applied.*

[l] *Sewage generation rates provided by LASAN do not include a rate for "Grocery/Food Hall" uses. Therefore, the most comparable land use rate of 50 gallons per 1,000 square feet for "Store: Retail" is applied.*

[m] *Sewage generation rates provided by LASAN do not include a rate for "Sports Complex" uses. Therefore, the most comparable land use rate of 200 gallons per 1,000 square feet for "Gymnasium: Basketball, Volleyball" is applied.*

[n] *Sewage generation rates provided by LASAN do not include a rate for "Event/Meeting Space" uses. Therefore, the most comparable land use rate of 120 gallons per 1,000 square feet for "Conference Room of Office Bldg." is applied.*

[o] *Sewage generation rates provided by LASAN do not include a rate for "Production Space" uses. Therefore, the most comparable land use rate of 50 gallons per 1,000 square feet for "Mfg or Industrial Facility (No IW Permit Required)" is applied.*

[p] *To calculate the number of hotel rooms, a square footage rate of 650 square feet per room is applied. Source: Jan A. deRoos, Cornell University School of Hotel Administration, The Scholarly Commons, Planning and Programming a Hotel, 2011. Document is available for download at http://scholarship.sha.cornell.edu/articles/310, accessed March 13, 2020.*

Source: Eyestone Environmental, 2020.

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 LASAN to construct the necessary improvements. As demonstrated above, the Hyperion Sanitary Sewer System has adequate capacity to serve the Project and related Projects. Therefore, any infrastructure improvements associated with the related projects would likely be limited to the immediate area around each related project site to connect to or upgrade existing sewer lines which are unlikely to result in significant environmental impacts. 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 would not be cumulatively considerable, and cumulative impacts would be less than significant.**

(2) Mitigation Measures

Cumulative impacts with regard to wastewater would be less than significant with compliance with regulatory measures and implementation of Project Design Features. Therefore, no mitigation measures are required.

(3) Level of Significance After Mitigation

Cumulative impacts related to wastewater would be less than significant without mitigation.