IV. Environmental Impact Analysis

I. Hydrology and Water Quality

1. Introduction

This section analyzes the Project's potential impacts on hydrology (drainage flows), surface water quality, groundwater levels, and groundwater quality. The analysis is based on the Hydrology and Water Quality Report prepared for the Project by KPFF Consulting Engineers dated October 2024,[1] and the Dewatering Simulation and Analysis for Excavation and Underground Parking Structure Construction Report (Dewatering Report)[2] prepared for the Project by Geosyntec Consultants dated March 2024, and included in their entirety in Appendix J and H.2 of this Draft EIR, respectively.

2. Environmental Setting

a. Regulatory Framework

There are several plans, policies, and programs regarding hydrology and water quality at the federal, state, regional, and local levels. Described below, these include:

- Clean Water Act
- Federal Antidegradation Policy
- Safe Drinking Water Act
- National Flood Insurance Program
- Porter-Cologne Water Quality Act (California Water Code)
- California Antidegradation Policy
- California Toxics Rule

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[1] *KPFF Consulting Engineers, Hydrology and Water Quality Report, Radford Studio Center Project, 4024–4200 Radford Avenue, Los Angeles, CA 90035, October 2024.*

[2] *Geosyntec, Dewatering Simulation and Analysis for Excavation and Underground Parking Structure Construction, 4024–4200 Radford Avenue, Studio City, California, March 13, 2024.*

- Sustainable Groundwater Management Act of 2014
- Water Replenishment District of Southern California
- County of Los Angeles Hydrology Manual
- National Pollutant Discharge Elimination System Permit Program
- Los Angeles River Watershed Master Plan
- Los Angeles Municipal Code Section 62.105, Construction "Class B" Permit
- Los Angeles Municipal Code Sections 12.40 through 12.43, Landscape Ordinance
- Los Angeles Municipal Code Section 64.70, Stormwater and Urban Runoff Pollution Control Ordinance
- Los Angeles Municipal Code Section 64.72, Stormwater Pollution Control Measures for Development Planning and Construction Activities
- Low Impact Development Ordinance
- Water Quality Compliance Master Plan for Urban Runoff
- Stormwater Program—Los Angeles County MS4 Permit Citywide Implementation Flood Hazard Management Ordinance

(1) Federal

(a) Clean Water Act

The Clean Water Act (CWA), formerly known as the Federal Water Pollution Control Act, was first introduced in 1948, with major amendments in the 1960s, 1970s, and 1980s.[3] The CWA authorizes federal, state, and local entities to cooperatively create comprehensive programs for eliminating or reducing the pollution of state waters and tributaries. Amendments to the CWA in 1972 established the National Pollutant Discharge Elimination System (NPDES) permit program, which prohibits discharge of pollutants into the nation's waters without procurement of a NPDES permit from the United States Environmental Protection Agency (USEPA). The purpose of the permit is to translate general requirements of the CWA into specific provisions tailored to the operations of each organization that is discharging pollutants. Although federally mandated, the NPDES permit program is generally administered at the state and regional levels.

[3] *U.S. Environmental Protection Agency, Clean Water Act, November 2002.*

The USEPA NPDES Program requires NPDES permits for: (1) Municipal Separate Storm Sewer Systems (MS4) generally serving, or located in, incorporated cities with 100,000 or more people (referred to as municipal permits); (2) 11 specific categories of industrial activity (including landfills); and (3) construction activity that disturbs five acres or more of land. As of March 2003, Phase II of the NPDES Program extended the requirements for NPDES permits to numerous small MS4s, construction sites of one to five acres, and industrial facilities owned or operated by small municipal separate storm sewer systems, which were previously exempted from permitting.

(b) Federal Antidegradation Policy

The Federal Antidegradation Policy has been incorporated within the CWA and requires states to develop statewide antidegradation policies and identify methods for implementing them.[4] Pursuant to the Code of Federal Regulations (CFR), state antidegradation policies and implementation methods must, at a minimum, protect and maintain: (1) existing in-stream water uses; (2) existing water quality, where the quality of the waters exceeds levels necessary to support existing beneficial uses, unless the state finds that allowing lower water quality is necessary to accommodate economic and social development in the area; and (3) water quality in waters considered an outstanding national resource.

(c) Safe Drinking Water Act

The Safe Drinking Water Act (SDWA) is the main federal law that ensures the quality of the Nation's drinking water.[5] The SDWA was originally passed by Congress in 1974 to protect public health by regulating the nation's public drinking water supply and its sources, including rivers, lakes, reservoirs, springs, and groundwater wells. Under the SDWA, the USEPA sets standards for drinking water quality and oversees the states, localities, and water suppliers that implement those standards. The SDWA regulates contaminants of concern in domestic water supply, including the maximum contaminant levels (MCLs), and that the USEPA has delegated the California Department of Public Health the responsible agency for administering California's drinking water program. MCLs are established under California Code of Regulations (CCR) Title 22, Div. 4, Ch. 15, Article 4 (Title 22 Standards).

(d) National Flood Insurance Program

The National Flood Insurance Act of 1968 and the Flood Disaster Protection Act of 1973 mandate the Federal Emergency Management Agency (FEMA) to evaluate flood

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[4] *U.S. Environmental Protection Agency, Water Quality Standards Handbook, Chapter 4: Antidegradation, 2010.*

[5] *United States Code, Title 42—The Public Health and Welfare, Chapter 6A Public Health and Service, Safe Drinking Water Act. 2006 Edition, Supplement 4, https://uscode.house.gov/view.xhtml?path=/prelim@title42/chapter6A/subchapter12&edition=prelim, accessed January 16, 2025.*

hazards.[6] FEMA provides flood insurance rate maps (FIRMs) for local and regional planners to promote sound land use and development practices, by identifying potential flood areas based on the current conditions. To delineate a FIRM, FEMA conducts engineering studies referred to as flood insurance studies (FIS). Using information gathered in these studies, FEMA engineers and cartographers delineate special flood hazard areas (SFHA) on FIRMs.

The Flood Disaster Protection Act requires owners of all structures within identified SFHAs to purchase and maintain flood insurance as a condition of receiving federal or federally-related financial assistance, such as mortgage loans from federally-insured lending institutions. Community members within designated areas are able to participate in the National Flood Insurance Program (NFIP) afforded by FEMA.

(2) State

(a) Porter-Cologne Water Quality Control Act (California Water Code)

The Porter-Cologne Water Quality Control Act established the legal and regulatory framework for California's water quality control.[7] The California Water Code (CWC) authorizes the State Water Resources Control Board (SWRCB) to implement the provisions of the CWA, including the authority to regulate waste disposal and require cleanup of discharges of hazardous materials and other pollutants. In California, the NPDES stormwater permitting program is administered by the SWRCB.

Under the CWC, the State of California is divided into nine Regional Water Quality Control Boards (RWQCBs), which govern the implementation and enforcement of the CWC and the CWA. The Project Site is located within Region 4, also known as the Los Angeles RWQCB (LARWQCB). The RWQCBs develop and enforce water quality objectives and implement plans that will best protect California's waters, acknowledging areas of different climate, topography, geology, and hydrology. Each RWQCB is required to formulate and adopt a Water Quality Control Plan or Basin Plan for its region. The Basin Plan establishes beneficial use definitions for the various types of water bodies, and serves as the basis for establishing water quality objectives, discharge conditions and prohibitions, and must adhere to the policies set forth in the CWC and established by the SWRCB. In this regard, the LARWQCB issued the Los Angeles Basin Plan on August 29, 2014, for the Coastal Watersheds of Los Angeles and Ventura Counties, with subsequent amendments. The

[6] *The National Flood Insurance Act of 1968, as amended, and The Flood Disaster Protection Act of 1973, 42 USC 4001 et. seq.*

[7] *State Water Resources Control Board, Porter-Cologne Water Quality Control Act, 2018.*

RWQCB is also given authority to issue waste discharge requirements, enforce actions against stormwater discharge violators, and monitor water quality.[8]

(b) California Antidegradation Policy

The California Antidegradation Policy, otherwise known as the Statement of Policy with Respect to Maintaining High Quality Water in California, was adopted by the SWRCB in 1968.[9] Unlike the Federal Antidegradation Policy, the California Antidegradation Policy applies to all waters of the state, not just surface waters. The policy states that, whenever the existing quality of a water body is better than the quality established in individual Basin Plans, such high quality shall be maintained and discharges to that water body shall not unreasonably affect present or anticipated beneficial use of the water resource.

(c) California Toxics Rule

In 2000, the California Environmental Protection Agency (CalEPA) promulgated the California Toxics Rule, which establishes water quality criteria for certain toxic substances to be applied to waters in the state.[10] CalEPA promulgated this rule based on CalEPA's determination that the numeric criteria of specific concentrations of regulated substances are necessary for the state to protect human health and the environment. The California Toxics Rule establishes acute (i.e., short-term) and chronic (i.e., long-term) standards for bodies of water, such as inland surface waters and enclosed bays and estuaries, that are designated by the LARWQCB as having beneficial uses protective of aquatic life or human health.

(d) Sustainable Groundwater Management Act of 2014

The Sustainable Groundwater Management Act of 2014 (SGMA) requires the designation of groundwater sustainability agencies (GSAs) by one or more local agencies and the adoption of groundwater sustainability plans (GSPs) for basins designated as medium- or high-priority by the California Department of Water Resources (DWR). SGMA grants new powers to GSAs, including the power to adopt rules, regulations, ordinances, and resolutions; regulate groundwater extractions; and to impose fees and assessments. SGMA also allows the SWRCB to intervene if local agencies will not or do not meet the SGMA requirements, in addition to mandating that critically overdrafted basins be sustainable by 2040, and medium- or high-priority by 2042.

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[8] *U.S. Environmental Protection Agency, State Review Framework, last updated December 31, 2024, www.epa.gov/compliance/state-review-framework-compliance-and-enforcement-performance, accessed January 16, 2025.*

[9] *California State Water Resources Control Board, State Board Resolution No. 68-16, October 1968.*

[10] *U.S. Environmental Protection Agency, Water Quality Standards, Establishment of Numeric Criteria for Priority Toxic Pollutants for the State of California, last updated October 8, 2024, www.epa.gov/wqs-tech/water-quality-standards-establishment-numeric-criteria-priority-toxic-pollutants-state, accessed January 16, 2025.*

(3) Regional

(a) Water Replenishment District of Southern California

The City of Los Angeles (City) is included within the Water Replenishment District of Southern California (WRD). The WRD service area is categorized as a High Priority basin and pursuant to the SGMA must either (a) form a GSA to prepare and submit a groundwater sustainability plan or (b) directly submit an Alternative Analysis in lieu of forming a GSA. The WRD, in conjunction with key stakeholders including the Los Angeles Department of Water and Power (LADWP), has prepared and submitted an Alternative Analysis that satisfies the requirements of the SGMA.[11] The Alternative Analysis demonstrates compliance with applicable portions of the CWC and provides adequate information to show that the applicable, underlying Central Subbasin has operated within its sustainable yield over a period of at least 10 years, and that the Alternative Analysis satisfies SGMA's objectives by promoting sustainable management of the groundwater in the Central Subbasin.

(b) County of Los Angeles Hydrology Manual

Drainage and flood control in the City are subject to review and approval by the Department of Public Works, Bureau of Engineering (Bureau of Engineering). Storm drains within the City are constructed by both the City and the Los Angeles County Flood Control District (County Flood Control). The County Flood Control constructs and has jurisdiction over regional facilities, such as major storm drains and open flood control channels, while the City constructs and is responsible for local interconnecting tributary drains.

Per the City's Special Order No. 007-1299, December 3, 1999, the City has adopted the Los Angeles County Department of Public Works' Hydrology Manual as its basis of design for storm drainage facilities.[12] The Department of Public Works' Hydrology Manual requires that a storm drain conveyance system be designed for a 25-year storm event and that the combined capacity of a storm drain and street flow system accommodate flow from a 50-year storm event. The County also limits the allowable discharge into existing storm drain (MS4) facilities based on the County's MS4 Permit, which is enforced on all new developments that discharge directly into the County's MS4 system.

Drainage and flood control structures and improvements within the City are subject to review and approval by the City's Department of Public Works and Department of Building and Safety. As required by the Department of Public Works, all public storm facilities must be designed in conformity with the standards set forth by Los Angeles County. The

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[11] *Board of Directors of the Water Replenishment District of Southern California, Resolution No. 16-1048, December 8, 2016.*

[12] *Los Angeles County Department of Public Works, Hydrology Manual, January 2006.*

Department of Public Works reviews and approves MS4 plans prior to construction. Any proposed increases in discharge directly into County facilities, or proposed improvements of County-owned MS4 facilities, such as catch basins and drainage lines, require approval from County Flood Control to ensure compliance with the County's Municipal NPDES Permit requirements.

(c) NPDES Permit Program

As indicated above, in California, the NPDES stormwater permitting program is administered by the SWRCB through its nine RWQCBs. This NPDES permit, General Permit for Stormwater Discharges from Construction Activities by the SWRCB (Construction General Permit), establishes a risk-based approach to stormwater control requirements for construction projects.

(i) Construction: Stormwater Pollution Prevention Plan

For all construction activities disturbing one acre of land or more, California mandates the development and implementation of Stormwater Pollution Prevention Plans (SWPPP). The SWPPP documents the selection and implementation of best management practices (BMPs) to prevent discharges of water pollutants to surface or groundwater. The SWPPP also charges owners with stormwater quality management responsibilities. The developer or contractor for a construction site subject to the Construction General Permit must prepare and implement a SWPPP that meets the requirements of the Construction General Permit.[13] The purpose of an SWPPP is to identify potential sources and types of pollutants associated with construction activity and list BMPs that would prohibit pollutants from being discharged from the construction site into the public stormwater system. BMPs typically address stabilization of construction areas, minimization of erosion during construction, sediment control, control of pollutants from construction materials, and post-construction stormwater management (e.g., the minimization of impervious surfaces or treatment of stormwater runoff). The SWPPP is also required to include a discussion of the proposed program to inspect and maintain all BMPs. A site-specific SWPPP could include, but not be limited to, the following BMPs:

- Erosion Control BMPs—to protect the soil surface and prevent soil particles from detaching. Selection of the appropriate erosion control BMPs would be based on minimizing areas of disturbance, stabilizing disturbed areas, and protecting slopes/channels. Such BMPs may include, but would not be limited to, use of geotextiles and mats, earth dikes, drainage swales, and slope drains.

[13] *State Water Resources Control Board, Construction Stormwater Program, last updated August 15, 2024, www.waterboards.ca.gov/water_issues/programs/stormwater/construction.html, accessed January 16, 2025.*

- Sediment Control BMPs—are treatment controls that trap soil particles that have been detached by water or wind. Selection of the appropriate sediment control BMPs would be based on keeping sediments on-site and controlling the site boundaries. Such BMPs may include, but would not be limited to, use of silt fences, sediment traps, and sandbag barriers, street sweeping and vacuuming, and storm drain inlet protection.

- Wind Erosion Control BMPs—consist of applying water to prevent or minimize dust nuisance.

- Tracking Control BMPs—consist of preventing or reducing the tracking of sediment off-site by vehicles leaving the construction area. These BMPs include street sweeping and vacuuming. Project sites are required to maintain a stabilized construction entrance to prevent off-site tracking of sediment and debris.

- Non-Stormwater Management BMPs—also referred to as "good housekeeping practices," involve keeping a clean, orderly construction site.

- Waste Management and Materials Pollution Control BMPs—consist of implementing procedural and structural BMPs for handling, storing, and disposing of wastes generated by a construction project to prevent the release of waste materials into stormwater runoff or discharges through the proper management of construction waste.

The SWRCB adopted a General Permit for Stormwater Discharges from Construction Activities on September 2, 2009, and amended the permit on September 8, 2022 (Order WQ 2022-0057-DWQ, General NPDES Permit No. CAS000002). The Construction General Permit regulates construction activity, including clearing, grading, and excavation of areas 1 acre or more in size, and prohibits the discharge of materials other than stormwater, authorized non-stormwater discharges, and all discharges that contain a hazardous substance, unless a separate NPDES permit has been issued for those discharges.

To obtain coverage under the Construction General Permit, a developer is required to file a Notice of Intent (NOI) with the appropriate RWQCB and provide proof of the NOI prior to applying for a grading or building permit from the local jurisdiction and must prepare a State SWPPP that incorporates the minimum BMPs required under the permit, as well as appropriate project-specific BMPs. The SWPPP must be completed and certified by the developer and BMPs must be implemented prior to the commencement of construction, and may require modification during the course of construction as conditions warrant. When project construction is complete, the developer is required to file a Notice of Termination with the RWQCB certifying that all the conditions of the Construction General permit, including conditions necessary for termination, have been met.

(ii) NPDES Permit for Discharges of Groundwater from Construction and Project Dewatering

Dewatering operations are practices that discharge non-stormwater, such as groundwater, that must be removed from a work location to proceed with construction into the drainage system. Discharges from dewatering operations can contain high levels of fine sediments, which, if not properly treated, could lead to exceedance of the NPDES requirements. An NPDES Permit for dewatering discharges was adopted by the LARWQCB on December 21, 2023 (Order No. R4-2023-0429, General NPDES Permit No. CAG994004) that went into effect on March 21, 2024. Similar to the Construction General Permit, to be authorized to discharge under this permit, the developer must submit a NOI to discharge groundwater generated from dewatering operations during construction in accordance with the requirements of this Permit and shall continue in full force until it expires March 21, 2029.[14] In accordance with the NOI, among other requirements and actions, the discharger must demonstrate that the discharges shall not cause or contribute to a violation of any applicable water quality objective/criteria for the receiving waters and perform reasonable potential analysis using a representative sample of groundwater or wastewater to be discharged. The discharger must obtain and analyze (using appropriate methods) a representative sample of the groundwater to be treated and discharged under the Order. The analytical method used shall be capable of achieving a detection limit at or below the minimum level. The discharger must also provide a feasibility study on conservation, reuse, and/or alternative disposal methods of the wastewater and provide a flow diagram of the influent to the discharge point.[15]

(iii) Operation: Los Angeles County Municipal Stormwater NPDES Program

The County of Los Angeles and the City are two of the Co-Permittees under the Los Angeles County MS4 Permit (Order No. R4-2012-0175 [as amended by SWRCB Order WQ 2015-0075], NPDES Permit No. CAS004001). The Los Angeles County MS4 Permit has been determined by the SWRCB to be consistent with the requirements of the CWA and the Porter-Cologne Act for discharges through the public storm drains in Los Angeles County to statutorily-defined waters of the U.S. (33 United States Code [USC] §1342(p); 33 CFR Part 328.11). On September 8, 2016, the LARWQCB amended the Los Angeles County MS4 Permit to incorporate modifications consistent with the revised Ballona Creek Watershed Trash Total Maximum Daily Load (TMDL) and the revised Los Angeles River Watershed Trash TMDL, among other TMDLs incorporated into the Los Angeles County MS4 Permit and the Basin Plan for the Coastal Waters of Los Angeles and Ventura Counties.

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[14] *Los Angeles Regional Water Quality Control Board, Order No. R4-2023-0429, General NPDES Permit No. CAG994004, Waste Discharge Requirements for Discharges of Groundwater from Construction and Project Dewatering to Surface Waters in Coastal Watersheds of Los Angeles and Ventura Counties, December 21, 2023.*

[15] *Los Angeles Regional Water Quality Control Board, Order No. R4-2023-0429, General NPDES Permit No. CAG994004, Waste Discharge Requirements for Discharges of Groundwater from Construction and Project Dewatering to Surface Waters in Coastal Watersheds of Los Angeles and Ventura Counties, December 21, 2023.*

Under the amended Los Angeles County MS4 Permit, permittees are required to implement a development planning program to address stormwater pollution. This program requires project applicants for certain types of projects to implement a Low Impact Development (LID) Plan. The purpose of the LID Plan is to reduce the discharge of pollutants in stormwater by outlining BMPs, which must be incorporated into the design of new development and redevelopment. These treatment control BMPs must be sufficiently designed and constructed to treat or retain the greater of an 85th percentile rain event or first 0.75 inch of stormwater runoff from a storm event.

The Los Angeles County MS4 Permit (Part VI.D.7.c, New Development/ Redevelopment Project Performance Criteria) includes design requirements for new development and substantial redevelopment. These requirements apply to all projects that create or replace more than 5,000 square feet of impervious cover. Where redevelopment results in an alteration to more than 50 percent of impervious surfaces of a previously existing development and the existing development was not subject to post-construction stormwater quality control requirements, the entire project would be subject to post-construction stormwater quality control measures.

This Enhanced Watershed Management Program for the Upper Los Angeles River (ULAR EWMP) describes a customized compliance pathway that participating agencies will follow to address the pollutant reduction requirements of the Los Angeles County MS4 Permit.[16] By electing the optional compliance pathway in the MS4 Permit, the Upper Los Angeles River Watershed Management Group (EWMP Group) has leveraged this EWMP to facilitate a robust, comprehensive approach to stormwater planning for the Upper Los Angeles River watershed. The objective of the EWMP Plan is to determine the network of control measures (BMPs) that will achieve required pollutant reductions while also providing multiple benefits to the community and leveraging sustainable green infrastructure practices. The Permit requires the identification of Watershed Control Measures, which are strategies and BMPs that will be implemented through the EWMP, individually or collectively, at watershed-scale to address the Water Quality Priorities. The EWMP Implementation Strategy is used as a recipe for compliance for each jurisdiction to address Water Quality Priorities and comply with the provisions of the MS4 Permit. The EWMP Implementation Strategy includes individual recipes for each of the 18 jurisdictions and each watershed/ assessment area—Los Angeles River above Sepulveda Basin, Los Angeles River below Sepulveda Basin, Compton Creek, Rio Hondo, Verdugo Wash, Arroyo Seco, Burbank Western Channel, Tujunga Wash, Bull Creek, Aliso Wash, Bell Creek, McCoy-Dry Canyon, and Browns Canyon Wash. Implementation of the EWMP Implementation Strategy will provide a BMP-based compliance pathway for each jurisdiction under the MS4 Permit. The permit specifies that an adaptive management process will be revisited every two years to evaluate the EWMP and update the program. The EWMP strategy will evolve based on

[16] *Upper Los Angeles River Watershed Management Group, Enhanced Watershed Management Program, January 2016.*

monitoring results by identifying updates to the EWMP Implementation Plan to increase its effectiveness.

The Los Angeles County MS4 Permit contains provisions for implementation and enforcement of the Stormwater Quality Management Program. The objective of the Stormwater Quality Management Program is to reduce pollutants in urban stormwater discharges to the "maximum extent practicable" to attain water quality objectives and protect the beneficial uses of receiving waters in Los Angeles County. Special provisions are provided in the Los Angeles County MS4 Permit to facilitate implementation of the Stormwater Quality Management Program. In addition, the Los Angeles County MS4 Permit requires that permittees implement a LID Plan, as discussed above, that designates BMPs that must be used in specified categories of development projects to infiltrate water, filter, or treat stormwater runoff; control peak flow discharge; and reduce the post-project discharge of pollutants into stormwater conveyance systems. In response to the Los Angeles County MS4 Permit requirements, the City adopted Ordinance No. 173,494 (Stormwater Ordinance), as authorized by LAMC Section 64.72.

The City supports the requirements of the Los Angeles County MS4 Permit through the City of Los Angeles' *Development Best Management Practices Handbook, Low Impact Development Manual, Part B: Planning Activities* (5th edition, May 2016) (LID Handbook),[17] which provides guidance to developers to ensure the post-construction operation of newly developed and redeveloped facilities comply with the Developing Planning Program regulations of the City's Stormwater Program. The LID Handbook assists developers with the selection, design, and incorporation of stormwater source control and treatment control BMPs into project design plans, and provides an overview of the City's plan review and permitting process. The City of Los Angeles passed Ordinance No. 188,125 on February 20, 2024, which amends Section 64.72 to establish definitions for "Priority Development and Redevelopment Projects" for which LID provisions shall be required. Projects which apply for a building or grading permit on or after April 2, 2024 shall be subject to these amendments.

The City implements the requirement to incorporate stormwater BMPs, including LID BMPs, through the City's plan review and approval process. During the review process, project plans are reviewed for compliance with the City's General Plan, zoning ordinances, and other applicable local ordinances and codes, including stormwater requirements. Plans and specifications are reviewed to ensure that the appropriate BMPs are incorporated to address stormwater pollution prevention goals.

[17] *City of Los Angeles Department of Public Works, Bureau of Sanitation, Watershed Protection Division, Planning and Land Development for Low Impact Development (LID), Part B: Planning Activities, 5th Edition, May 2016.*

(d) Los Angeles River Watershed Master Plan

The Los Angeles River Master Plan recognizes the river as a resource of regional importance and that those resources must be protected and enhanced. The Los Angeles River Master Plan was adopted in 1996, and is intended to maintain the river as a resource that provides flood protection and opportunities for recreational and environmental enhancement, improves the aesthetics of the region, enriches the quality of life for residents, and helps sustain the economy of the region.[18] Environmental goals of the Watershed Master Plan are to preserve, enhance, and restore environmental resources in and along the river, including improving water quality and cleanliness of the river. Soil contamination on riverfront lands that have supported railroads and other industries is cited as an issue of concern.

(4) Local

(a) Los Angeles Municipal Code Section 62.105, Construction "Class B" Permit

Proposed drainage improvements within the street rights-of-way or any other property owned by, to be owned by, or under the control of the City require the approval of a B-permit (LAMC Section 62.105). Under the B-permit process, storm drain installation plans are subject to review and approval by the Bureau of Engineering. Additionally, connections to the MS4 system from a property line to a catch basin or a storm drain pipe require a storm drain permit from the Bureau of Engineering.

(b) Los Angeles Municipal Code Sections 12.40 through 12.43, Landscape Ordinance

In 1996, Ordinance No. 170,978 amended LAMC Sections 12.40 through 12.43 to establish consistent landscape requirements for new projects within the City. LAMC Section 12.40 contains general requirements, including a point system for specific project features and techniques in order to determine compliance with the ordinance, and defines exemptions from the ordinance. LAMC Section 12.41 sets minimum standards for water delivery systems (irrigation) to landscapes. LAMC Section 12.43 defines the practices addressed by the ordinance, of which two are applicable to stormwater management. The Heat and Glare Reduction practice states among its purposes the design of vehicular use areas that reduce stormwater runoff and increase groundwater recharge. The Soil and Watershed Conservation practice is intended to encourage the restoration of native areas that are unavoidably disturbed by development; to conserve soil and accumulated organic litter and reduce erosion by utilization of a variety of methods; and to increase the "residence time of precipitation" (i.e., the time between the original evaporation and the returning of water

[18] *City of Los Angeles, The Los Angeles River Revitalization Master Plan, April 2007.*

masses to the land surface as precipitation) within a given watershed. Implementation guidelines developed for the ordinance provide specific features and techniques for incorporation into projects, and include water management guidelines addressing runoff, infiltration, and groundwater recharge. This ordinance is incorporated into the LID Ordinance discussed below.

(c) Los Angeles Municipal Code Section 64.70, Stormwater and Urban Runoff Pollution Control Ordinance

LAMC Section 64.70, the Stormwater and Urban Runoff Pollution Control Ordinance, was added by Ordinance No. 172,176 in 1998 and prohibits the discharge of unauthorized pollutants in the City. The Watershed Protection Program (Stormwater Program) for the City is managed by the Bureau of Sanitation along with all City Flood Protection and Pollution Abatement (Water Quality) Programs, including, but not limited to, regulatory compliance, implementation, operations, reporting and funding. Section 64.70 sets forth uniform requirements and prohibitions for discharges and places of discharge into the storm drain system and receiving waters necessary to adequately enforce and administer all federal and state laws, legal standards, orders and/or special orders that provide for the protection, enhancement, and restoration of water quality. Through a program employing watershed-based approaches, the regulation implements the following objectives:

1. To comply with all Federal and State laws, lawful standards, and orders applicable to stormwater and urban runoff pollution control;

2. To prohibit any discharge which may interfere with the operation of, or cause any damage to the storm drain system, or impair the beneficial use of the receiving waters;

3. To prohibit illicit discharges to the storm drain system;

4. To reduce stormwater runoff pollution;

5. To reduce non-stormwater discharge to the storm drain system to the maximum extent practicable; and

6. To develop and implement effective educational outreach programs designed to educate the public on issues of stormwater and urban runoff pollution.

The ordinance applies to all dischargers and places of discharge that discharge stormwater or non-stormwater into any storm drain system or receiving waters. While this practice is prohibited under the County's Municipal NPDES Permit, adoption of the ordinance allows enforcement by the Department of Public Works, as well as the levy of fines for violations. General Discharge Prohibitions require that no person shall discharge, cause,

permit, or contribute to the discharge any hazardous materials and substances (liquids, solids, or gases) into to the storm drain system or receiving waters that constitute a threat and/or impediment to life and the storm drain system, singly or by interaction with other materials. A specific list of prohibited substances can be found under LAMC Section 64.70.

Under LAMC Section 64.70.02 D, Requirement to Prevent, Control, and Reduce Stormwater Pollutants, any owner of a facility engaged in activities or operations as listed in the Critical Sources Categories, Section III of the Board's Rules and Regulations shall be required to implement BMPs as promulgated in the Rules and Regulations. The owner/ developer of a property under construction shall be required to implement the stormwater pollution control requirements for construction activities as depicted in the project plans approved by the Department of Building and Safety. In the event a specified BMP proves to be ineffective or infeasible, additional and/or alternative, site-specific BMPs or conditions deemed appropriate to achieve the objectives of this ordinance as defined in LAMC Section 64.70 B would be implemented.

(d) Los Angeles Municipal Code Section 64.72, Stormwater Pollution Control Measures for Development Planning and Construction Activities

LAMC Section 64.72, Stormwater Pollution Control Measures for Development Planning and Construction Activities, was added by Ordinance 173,494 (LID Ordinance) in 2000 and sets forth requirements for construction activities and facility operations of development and redevelopment projects to comply with the requirements of the NPDES permit requirements. The provisions of this section contain requirements for construction activities and facility operations of development and redevelopment projects to comply with the Land Development requirements of the Los Angeles County MS4 Permit through integrating LID practices and standards for stormwater pollution mitigation, and maximize open, green, and pervious space on all developments and redevelopments consistent with the City's Landscape Ordinance and other related requirements in the Development Best Management Practices Handbook.

(e) Low Impact Development Ordinance (No. 181,899)

In 2011, the City adopted a Citywide Low Impact Development Ordinance (LID Ordinance) that amended the City's existing Stormwater Ordinance (LAMC Section Nos. 64.70 and 64.72, discussed above). The LID Ordinance became effective on May 12, 2012. The current City of Los Angeles Planning and Land Development Handbook for LID was published on May 9, 2016. The City of Los Angeles passed Ordinance No. 188,125 on February 20, 2024, which amends Section 64.72 to establish definitions for "Priority Development and Redevelopment Projects" for which LID provisions shall be required. Projects which apply for a building or grading permit on or after April 2, 2024 shall be subject to these amendments.

The LID Ordinance enforces the requirements of the Los Angeles County MS4 Permit. LID is a stormwater management strategy with goals to mitigate the impacts of increased runoff and stormwater pollution as close to their source as possible and that promotes the use of natural infiltration systems, evapotranspiration, and the reuse of stormwater. The goal of LID practices is to remove nutrients, bacteria, and metals from stormwater while also reducing the quantity and intensity of stormwater flows. Through the use of various infiltration strategies, LID is aimed at minimizing impervious surface area. Where infiltration is not feasible, the use of bioretention, rain gardens, green roofs, and rain barrels that will store, evaporate, detain, and/or treat runoff can be used.[19]

The intent of LID standards is to:

- Require the use of LID practices in future developments and redevelopments to encourage the beneficial use of rainwater and urban runoff;
- Reduce stormwater/urban runoff while improving water quality;
- Promote rainwater harvesting;
- Reduce off-site runoff and provide increased groundwater recharge;
- Reduce erosion and hydrologic impacts downstream; and
- Enhance the recreational and aesthetic values in our communities.

The Citywide LID strategy addresses land development planning, as well as storm drain infrastructure. Toward this end, LID is implemented through BMPs that fall into four categories: site planning BMPs, landscape BMPs, building BMPs, and street and alley BMPs. While the LID Ordinance and the BMPs contained therein comply with Los Angeles County MS4 Permit requirements for stormwater management, the MS4 requirements apply only to proposed new development and redevelopment of a certain size, primarily address stormwater pollution prevention as opposed to groundwater recharge, and vary over time as the permit is reissued every five years. The LID Ordinance provides a consistent set of BMPs that apply to existing, as well as new, development and emphasize natural drainage features and groundwater recharge in addition to pollution prevention in receiving waters. The LID Ordinance requires the capture and management of the greater of an 85th percentile rain event or the first 0.75 inch of runoff flow during storm events defined in the City's LID BMPs, through one or more of the City's preferred LID improvements in priority order: on-site infiltration, capture and reuse, or biofiltration/biotreatment BMPs, to the maximum extent feasible.

[19] *City of Los Angeles Department of Public Works, Bureau of Sanitation, Watershed Protection Division, Planning and Land Development for Low Impact Development (LID), Part B: Planning Activities, 5th Edition, May 2016.*

Per the City's 2016 LID Manual's Figure 3.3 and Section 4.1, the City's preferred LID improvement is on-site infiltration of stormwater, since it allows for groundwater recharge and reduces the volume of stormwater entering municipal drains.[20] If project site conditions are not suitable for infiltration, the City requires on-site retention via stormwater capture and reuse. Should capture and reuse be deemed technically infeasible, high efficiency biofiltration/bioretention systems should be utilized. Lastly, under the LID Ordinance (LAMC Section 64.72 C.6), as interpreted in the LID Manual, if no single approach listed in the LID Manual is feasible, then a combination of approaches may be used.[21]

The LID Ordinance applies first to a project in lieu of Standard Urban Stormwater Mitigation Plan (SUSMP) provisions. If a large project cannot meet the requirements of the LID Ordinance, then SUSMP applies instead.

(f) Water Quality Compliance Master Plan for Urban Runoff

The Water Quality Compliance Master Plan for Urban Runoff (Water Quality Compliance Master Plan)[22] was developed by the Department of Public Works, Bureau of Sanitation, Watershed Protection Division, and was adopted in April 2009.

The Water Quality Compliance Master Plan addresses planning, budgeting, and funding for achieving clean stormwater and urban runoff for the next 20 years and presents an overview of the status of urban runoff management within the City. The Water Quality Compliance Master Plan identifies the City's four watersheds; summarizes water quality conditions in the City's receiving waters, as well as known sources of pollutants; summarizes regulatory requirements for water quality; describes BMPs required by the City for stormwater quality management; and discusses related plans for water quality that are implemented within the Los Angeles region, particularly TMDL Implementation Plans and Watershed Management Plans in Los Angeles.

(g) Stormwater Program—Los Angeles County MS4 Permit Citywide Implementation

The Watershed Protection Division of the Department of Public Works, Bureau of Sanitation is responsible for stormwater pollution control throughout the City in compliance with the Los Angeles County MS4 Permit. The Watershed Protection Division administers the City's Stormwater Program, which has two major components: Pollution Abatement and

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[20] *City of Los Angeles Department of Public Works, Bureau of Sanitation, Watershed Protection Division, Planning and Land Development for Low Impact Development (LID), Part B: Planning Activities, 5th Edition, May 2016.*

[21] *City of Los Angeles Department of Public Works, Bureau of Sanitation, Watershed Protection Division, Planning and Land Development for Low Impact Development (LID), Part B: Planning Activities, 5th Edition, May 2016.*

[22] *City of Los Angeles Department of Public Works, Bureau of Sanitation, Watershed Protection Division, Planning and Land Development for Low Impact Development (LID), Part B: Planning Activities, 5th Edition, May 2016.*

Flood Control. The Watershed Protection Division publishes the two-part *Development Best Management Practices Handbook* that provides guidance to developers for compliance with the Los Angeles County MS4 Permit through the incorporation of water quality management into development planning.[23] The *Development Best Management Practices Handbook, Part A: Construction Activities*, provides specific minimum BMPs for all construction activities. The *Development Best Management Practices Handbook*, Low Impact Development Manual, Part B: Planning Activities (LID Handbook) provides guidance to developers to ensure the post-construction operation of newly developed and redeveloped facilities comply with the Developing Planning Program regulations of the City's Stormwater Program.[24] The LID Handbook assists developers with the selection, design, and incorporation of stormwater source control and treatment control BMPs into project design plans, and provides an overview of the City's plan review and permitting process. The LID Handbook addresses the need for frequent and/or regular inspections of infiltration facilities in order to ensure on-site compliance of BMP standards, soil quality, site vegetations, and permeable surfaces. These inspections are required to guarantee that facilities follow all proprietary operation and maintenance requirements.

During the development review process, project plans are reviewed for compliance with the City's General Plan, zoning ordinances, and other applicable local ordinances and codes, including stormwater requirements. Plans and specifications are reviewed to ensure that the appropriate BMPs are incorporated to address stormwater pollution prevention goals.

(h) Flood Hazard Management Ordinance

Effective April 19, 2021, Ordinance 186,952 amends the Specific Plan for the Management of Flood Hazards, established by Ordinance No. 154,405 and amended by Ordinance Nos. 163,913 and 172,081, to update it to meet current federal standards and to rename it the Flood Hazard Management Ordinance. The ordinance applies to all public and private development and provides for the establishment, management, and regulatory control of Flood Hazard areas. For properties within areas of Special Flood Hazard Areas as identified by FEMA in the FIS for the Los Angeles County dated December 2, 1980, the ordinance establishes certain policies that include development and construction standards and regulations that may require additional permitting and discretionary review. Being hazard-specific, the provisions of the ordinance deal with the unique problems of each hazard in addition to the Citywide policies and goals.

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[23] *City of Los Angeles Department of Public Works, Bureau of Sanitation, Watershed Protection Division, Planning and Land Development for Low Impact Development (LID), Part B: Planning Activities, 5th Edition, May 2016.*

[24] *City of Los Angeles Department of Public Works, Bureau of Sanitation, Watershed Protection Division, Planning and Land Development for Low Impact Development (LID), Part B: Planning Activities, 5th Edition, May 2016.*

b. Existing Conditions

(1) Surface Water Quality

(a) Regional

As described in the Hydrology and Water Quality Report included in Appendix J of this Draft EIR, the Project Site is located within the Los Angeles River Watershed. According to the SWRCB, water quality in the middle and lower portion of the Los Angeles River Watershed has been impaired by pollutants from dense clusters of residential, industrial, and other urban activities.[25] Constituents of concern listed for the Los Angeles River Watershed under California's CWA Section 303(d) List include ammonia, benthic community effects, cadmium, chlordane, copper, dissolved copper, cyanide, dichlorodiphenyltrichloroethane (DDT) (sediment), indicator bacteria, lead, nutrients (algae), oil, polychlorinated biphenyls (PCBs), pH, selenium, toxicity, trash, and dissolved zinc.

Pursuant to Section 303(d) of the federal CWA, the state and RWQCBs identify impaired bodies of water that do not meet water quality standards and prioritize and schedule them for development of TMDLs.[26] A TMDL specifies the maximum amount of a pollutant that a water body can receive while still meeting water quality standards. The facilities and activities that are discharging into the water body, collectively, must not exceed the TMDL. The Los Angeles River Watershed has TMDLs for ammonia, cadmium, chlordane, copper, dissolved copper, DDT (sediment), indicator bacteria, lead, nutrients (algae), pH, selenium, trash, and dissolved zinc.

(b) Local

In general, urban stormwater runoff occurs following precipitation events, with the volume of runoff flowing into the drainage system depending on the intensity and duration of the rain event. Contaminants that may be found in stormwater from developed areas include sediments, trash, bacteria, metals, nutrients, organics, and pesticides. The sources of contaminants include surface areas where precipitation falls, as well as the air through which it falls. Contaminants on surfaces, such as roads, maintenance areas, parking lots, and buildings, which are usually contained in dry weather conditions, may be carried by rainfall runoff into drainage systems. The City typically installs catch basins with screens to capture debris before entering the storm drain system. In addition, the City conducts routine street

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[25] *KPFF Consulting Engineers, Hydrology and Water Quality Report, Radford Studio Center Project, 4024–4200 Radford Avenue, Los Angeles, CA 90035, October 2024.*

[26] *California Water Boards, The 303(d) List of Impaired Water Bodies, last updated July 31, 2024, www.waterboards.ca.gov/rwqcb2/water_issues/programs/TMDLs/303dlist.html, accessed January 16, 2025.*

cleaning operations, as well as periodic cleaning and maintenance of catch basins to reduce stormwater pollution within the City.[27]

(c) On-Site

While some of the parking areas include landscaped stormwater infiltration basins, the Project Site does not otherwise currently implement structural BMPs for the treatment of stormwater runoff from existing impervious surfaces, such as building roof areas and pavement, because the existing buildings were developed prior to the adoption of stormwater quality BMP requirements. The Project Site also does not currently have a means of treatment for stormwater runoff beyond the landscaped stormwater infiltration basins mentioned above. Based on existing operations within the Project Site, the on-site runoff is anticipated to contain the following typical pollutants of concern: sediment, nutrients, pesticides, metals, pathogens, oil, and grease.

(2) Surface Water Hydrology

(a) Regional

As previously noted, the Project Site is located within the Los Angeles River Watershed. The Los Angeles River Watershed encompasses a land area of 834 square miles. The western portion of the Los Angeles River Watershed spans from the Santa Monica Mountains to the Simi Hills and the eastern portion spans from the Santa Susana Mountains to the San Gabriel Mountains. The Los Angeles River Watershed is shaped by the path of the Los Angeles River, which flows from its headwaters in the mountains eastward toward the northern corner of Griffith Park. There the channel turns southward through Glendale Narrows before it flows across the coastal plan and into San Pedro near Long Beach. The entire length of the Los Angeles River is concrete-lined. The Los Angeles River is fed by a network of open channels and underground storm drains. Major tributaries include the Pacoima Wash, Tujunga Wash, Burbank Western Channel, and Verdugo Wash.[28]

(b) Local

As described in the Hydrology and Water Quality Report, stormwater runoff from the North Lot is conveyed into an on-site storm system, which outlets to the Los Angeles River at two discharge points and to the Tujunga Wash at one discharge point. Stormwater from the South Lot is conveyed into an on-site storm system, which outlets to Radford Avenue at one discharge point and to the Los Angeles River at six discharge points. There is an existing

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[27] *KPFF Consulting Engineers, Hydrology and Water Quality Report, Radford Studio Center Project, 4024–4200 Radford Avenue, Los Angeles, CA 90035, October 2024.*

[28] *KPFF Consulting Engineers, Hydrology and Water Quality Report, Radford Studio Center Project, 4024–4200 Radford Avenue, Los Angeles, CA 90035, October 2024.*

84-inch underground stormwater pipe under Radford Avenue that outlets to the Los Angeles River upstream from the Project Site. Other surface stormwater runoff from the Project Site and surrounding properties will discharge toward City catch basins and underground storm drain pipes which convey stormwater through various underground pipe networks into the Los Angeles River.

(c) On-Site

As shown in Figure IV.I-1 on page IV.I-21, the Los Angeles River runs west to east through the Project Site and divides the Project Site into three drainage areas: the North Lot, the South Lot, and the area proposed for the County's Los Angeles River Bike Path improvements (referred to herein as the 1.77-Acre Parcel). The North Lot generally slopes towards the southeast and the South Lot generally slopes from its southwest corner both to the northwest and southeast. The 1.77-Acre Parcel area east of the Tujunga Wash generally slopes from north to south.

As shown in Table IV.I-1 on page IV.I-22, the Project Site is currently 92-percent impervious. Table IV.I-2 on page IV.I-40 in the analysis further below shows the existing volumetric flow rate (measured in cubic feet per second [cfs]) generated by the 50-year frequency storm event peak flow rate within the existing Project Site. The existing runoff rate during a 50-year storm event (Q_{50}) is approximately 128.40 cfs.

(3) Groundwater Quality

(a) Regional

The San Fernando Valley region in the City overlies the San Fernando Groundwater Basin. The Project Site is located within the San Fernando Groundwater Basin. This basin falls under the jurisdiction of the LARWQCB. According to LARWQCB's Basin Plan, water quality objectives applying to all ground waters of the region include bacteria, chemical constituents and radioactivity, mineral quality, nitrogen (nitrate and nitrite), and taste and odor.

(b) Local

The Project Site is not located within a local subbasin of the regional basin (i.e., the San Fernando Groundwater Basin discussed above). Therefore, the same groundwater quality objectives apply to the local condition as the regional condition.

(c) On-Site

Although it is possible for surface water-borne contaminants to percolate into the groundwater and affect groundwater quality, given the relatively small amount of permeable

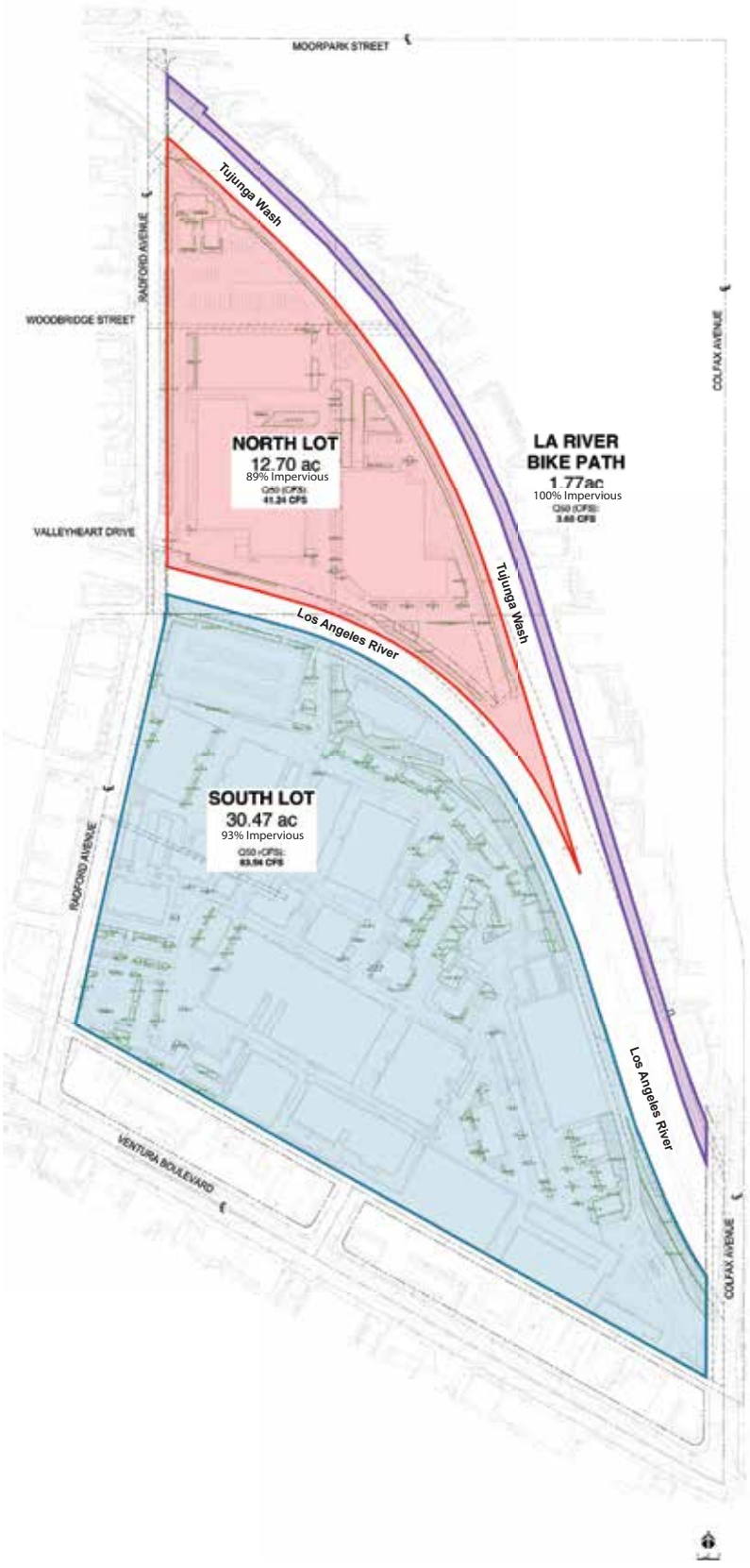

Figure IV.I-1
Project Site Drainage

Source: Eyestone Environmental, 2024.

Table IV.I-1
Existing Site Drainage Stormwater Runoff Calculations Summary

Drainage Area	Area (acres)[a]	Impervious Area (acres)	Percent Impervious	Q_{50}[b] (cfs)
North Lot	12.70	11.30	89%	41.24
South Lot	30.47	28.33	93%	83.56
1.77-Acre Parcel	1.77	1.77	100%	3.60
Site Total	**44.94**	**41.40**	**92%**	**128.40**

cfs = cubic feet per second

[a] *Total acreage does not include the Los Angeles River and Tujunga Wash areas.*

[b] *Q_{50} is the volumetric flow rate generated by a 50-year storm event.*

Source: KPFF Consulting Engineers, 2024.

area on the Project Site (approximately eight percent) and the depth of existing groundwater on-site, as well as the flow direction of current Project Site drainage, the Project Site does not substantially contribute to groundwater recharge. Therefore, the existing Project Site does not substantially contribute to groundwater pollution or otherwise adversely impact groundwater quality.

Other conditions, such as the presence of underground storage tanks (USTs), have a greater potential to impact groundwater. As discussed in Section IV.I, Hazards and Hazardous Materials, of this Draft EIR, all former USTs have been removed from the Project Site, and there is no evidence of remaining USTs on-site.

(4) Groundwater Hydrology

(a) Regional

Groundwater use for domestic water supply is a major beneficial use of groundwater basins in Los Angeles County. As previously noted above, the Project Site is located within the San Fernando Groundwater Basin. Groundwater in the San Fernando Groundwater Basin generally flows from the edges towards the middle, then below the Los Angeles River narrows into the Central Subbasin of the Coastal Plain of Los Angeles Basin. Flow may be restricted by natural geological features. Replenishment of the San Fernando Groundwater Basin occurs mainly by the spreading of imported water and runoff at spreading grounds and percolation of precipitation throughout the region via permeable surfaces.

(b) Local

The Project Site is located near the southern limits of the San Fernando Groundwater Basin and the northern limits of the Santa Monica Mountains. Average annual precipitation within the San Fernando Valley ranges from 15 inches to 23 inches.[29] However, surface runoff drains to the Los Angeles River, which is entirely concrete-lined and, therefore, does not contribute to groundwater recharge. Paving of streets and lining of drainage channels near the Project Site have decreased the surface area open to direct percolation.

(c) On-Site

As part of the Geotechnical Investigation included in Appendix H.1 of this Draft EIR, six borings were drilled to depths between 30 feet and 80 feet below the existing Project Site grade in the South Lot. Groundwater was encountered at varying depths ranging between 30 feet and 42 feet below the existing Project Site grade. Historically, the highest groundwater reported in the South Lot ranges from approximately 0 feet below the existing Project Site grade (immediately below the ground surface because of the Project Site's close proximity to the Los Angeles River) at the northern portion to approximately 20 feet below the existing Project Site grade at the southern portion. In the North Lot, groundwater was encountered in three of the 39 previous borings at depths of 58 feet, 65.5 feet, and 73 feet below the existing Project Site grade. Historically, the highest groundwater reported for the entire North Lot is 0 feet below the existing Project Site grade. As noted in the Hydrology and Water Quality Report, the historic high groundwater levels are based on 1944 groundwater levels, which occurred prior to excessive pumping in the basin. Fluctuations on the level of groundwater may occur due to variations in rainfall and temperature.

As stated previously, the existing Project Site is approximately 92 percent impervious. Accordingly, there is currently limited groundwater recharge potential within the Project Site. There are no groundwater production wells or public water supply wells within the Project Site or in the vicinity of the Project Site.

(5) Flood Zone

Based on the FEMA FIRMs for the Project Site, the Project Site is not located within a 100-year flood zone.

[29] *KPFF Consulting Engineers, Hydrology and Water Quality Report, Radford Studio Center Project, 4024–4200 Radford Avenue, Los Angeles, CA 90035, October 2024*

3. Project Impacts

a. Thresholds of Significance

In accordance with Appendix G of the CEQA Guidelines, a project would have a significant impact related to hydrology and water quality if it would:

Threshold (a): Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality;

Threshold (b): Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin;

Threshold (c): Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:

(i) result in substantial erosion or siltation on- or off-site;

(ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;

(iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or

(iv) impede or redirect flood flows?

Threshold (d): In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?

Threshold (e): Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

Threshold (f): 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.[30] For this analysis, the Appendix G thresholds listed above are relied

[30] *In the CEQA Guidelines, this threshold appears under Section XIX, Utilities and Service Systems as Threshold (a). However, as it relates to water, wastewater, stormwater, and energy and telecommunications infrastructure, it is addressed in each of these respective sections of the EIR. Refer to Sections IV.O.1, Utilities and Service Systems—Water Supply and Infrastructure, IV.O.2, Utilities and Service Systems—Wastewater, and IV.O.4, Utilities and Service Systems—Energy Infrastructure, respectively, for a discussion of the other topics in this threshold.*

upon. The analysis utilizes factors and considerations identified in the City's *2006 L.A. CEQA Thresholds Guide*, as appropriate, to assist in answering the Appendix G threshold questions.

The *L.A. City CEQA Thresholds Guide* identifies the following factors to evaluate hydrology and water quality impacts:

(1) Surface Water Hydrology

- Would the project cause flooding during the projected 50-year developed storm event, which would have the potential to harm people or damage property or sensitive biological resources?

- Would the project substantially reduce or increase the amount of surface water in a water body?

- Would the project result in a permanent, adverse change to the movement of surface water sufficient to produce a substantial change in the current or direction of water flow?

(2) Surface Water Quality

- Would the project result in discharges that would create pollution, contamination or nuisance as defined in Section 13050 of the California Water Code or that cause regulatory standards to be violated, as defined in the applicable NPDES stormwater permit or Water Quality Control Plan for the receiving water body.

As defined in the California Water Code:[31]

- "Pollution" means an alteration of the quality of the waters of the state to a degree which unreasonably affects either of the following: (1) the waters for beneficial uses; or (2) facilities which serve these beneficial uses. Pollution may include contamination.

- "Contamination" means an impairment of the quality of the waters of the state by waste to a degree which creates a hazard to the public health through poisoning or through the spread of diseases. Contamination includes any equivalent effect resulting from the disposal of waste whether or not waters of the state are affected.

- "Nuisance" means anything which meets all of the following requirements: (1) is injurious to health, or is indecent or offensive to the senses, or an obstruction to the free use of property so as to interfere with the comfortable enjoyment of life or

[31] *California Water Code Section 13050 Definitions, 1996.*

property; (2) affects at the same time an entire community or neighborhood, or any considerable number of persons although the extent of the annoyance or damage inflicted upon individuals may be unequal; and (3) occurs during or as a result of the treatment or disposal of wastes.

(3) Groundwater

- Change potable water levels sufficiently to:
  - Reduce the ability of a water utility to use the groundwater basin for public water supplies, conjunctive use purposes, storage of imported water, summer/ winter peaking, or to respond to emergencies and drought;
  - Reduce yields of adjacent wells or well fields (public or private); or
  - Adversely change the rate or direction of flow of groundwater;
- Result in demonstrable and sustained reduction of groundwater recharge capacity;
- Affect the rate or change direction of movement of existing contaminants;
- Expand the area affected by contaminants;
- Result in an increased level of groundwater contamination (including that from direct percolation, injection or salt water intrusion); or
- Cause regulatory water quality standards at an existing production well to be violated, as defined in the CCR, Title 22, Division 4, Chapter 15 and in the Safe Drinking Water Act.

b. Methodology

The analysis is based on the Hydrology and Water Quality Report prepared by KPFF Consulting Engineers dated October 2024. This report is included as Appendix J of this Draft EIR.

(1) Surface Water Quality

The analysis of surface water quality impacts identifies the types of pollutants associated with construction and operation of the Project and considers their potential effects on surface water quality.

Project consistency with relevant regulatory permits/requirements, including BMPs and applicable plans, is evaluated to demonstrate how compliance would reduce potential Project impacts. Under Section 3.1.3 of the City's LID Manual, post-construction stormwater

runoff from a new development must be infiltrated, captured and used, and/or treated through high efficiency on-site biofiltration/bioretention systems for at least the volume of water produced by the greater of the 85th percentile storm or the 0.75-inch storm event. In accordance with these requirements, the feasibility of the different potential BMPs outlined in the LID Manual is evaluated in the analysis, and the required capacity of the identified preferred feasible BMP is calculated.

As previously described above, the Project Site drainage has been analyzed as three areas: north of the Los Angeles River (North Lot), south of the Los Angeles River (South Lot), and the Los Angeles River Bike Path (referred to as the 1.77-Acre Parcel). The total disturbed area within the North Lot is 2.66 acres, which is 20.9 percent of the total North Lot area of 12.70 acres. As the Project would disturb less than 50 percent of the total North Lot, per the City of Los Angeles LID Standards Manual, only the disturbed areas would be treated as part of the Project. The total disturbed area within the South Lot is 25.0 acres, which is 82.0 percent of the total South Lot area of 30.47 acres. As the proposed developments on the South Lot would disturb more than 50 percent of the entire area, the South Lot must, therefore, meet the requirements of the LID Standards Manual. There is no proposed improvement within the 1.77-Acre Parcel; therefore, no LID treatment would be required.

Feasibility screening delineated in the LID Manual is applied to determine which BMPs would best suit the Project. Specifically, LID guidelines require that infiltration systems maintain at least 10 feet of clearance to the found groundwater, property line, and any building structure. The highest elevation at which groundwater was located on the South Lot was 30 feet, and the highest elevation at which groundwater was found on the North Lot, was 58 feet. Based on these parameters, if infiltration is feasible, the Project would be required to infiltrate a total of approximately 791,000 gallons of water on-site. If infiltration is deemed infeasible, the next tier in the City of Los Angeles LID Manual is a stormwater capture and reuse system. To implement this BMP, the Project would be required to capture and reuse approximately 791,000 gallons of water on-site for irrigation.

If capture and reuse is later determined to not be feasible during the City's building permit review process, the Project would then be required to implement high efficiency biofiltration/bioretention systems pursuant to applicable regulatory requirements.

Ultimately, one or multiple stormwater management strategies would be incorporated into LADBS' building permit review and approval process. Through this existing regulatory process, stormwater management strategies would be implemented to conform to the City of Los Angeles Sanitation Department's (LASAN) regulatory guidelines.

(2) Surface Water Hydrology

The surface water hydrology analysis evaluates the change in surface water runoff patterns and quantity for the Project Site due to the construction and operation of the Project, and the impact of these changes on the existing downstream stormwater system. As discussed in the Regulatory Framework Section above, the City has adopted the Los Angeles County Department of Public Works Hydrology Manual as its basis of design for storm drainage facilities. The Hydrology Manual requires that a storm drain conveyance system be designed for a 25-year storm event and that the combined capacity of a storm drain and street flow system accommodate flow from a 50-year storm event. The City's *L.A. City CEQA Thresholds Guide* establishes the 50-year frequency design storm event as the threshold to evaluate potential impacts on surface water hydrology. Thus, to determine the ability of the existing storm drain infrastructure to accommodate any changes in runoff flows associated with the Project, potential flows from each drainage area during a 50-year frequency design storm event was evaluated.

As part of the surface water hydrologic analysis, stormwater runoff generated from the Project Site was quantified using the Modified Rational Method.[32] The Modified Rational Method assumes that a steady, uniform rainfall rate will produce maximum runoff when all parts of the basin area are contributing to outflow. This occurs when the storm event lasts longer than the time of concentration. The time of concentration (Tc) is the time it takes for rain in the most hydrologically remote part of the basin area to reach the outlet.

As part of its Hydrology Manual, the Los Angeles County Department of Public Works developed a time of concentration calculator, HydroCalc, to automate time of concentration, peak runoff rate, and total volume calculations. HydroCalc was used to calculate the stormwater peak runoff flow rate for the Project Site with implementation of the Project by evaluating the changes within the individual drainage areas.

(3) Groundwater Quality and Hydrology

The analysis of the Project's potential impacts associated with groundwater was based on a review of existing groundwater conditions and groundwater uses, and an evaluation of the potential impacts for construction and operation of the Project to affect those

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[32] *The equation used in the Modified Rational Method is Q=C x I x A, where "Q" equals the volumetric flow rate (cfs), "C" equals the runoff coefficient, "I" equals the rainfall intensity (inches per hour [inch/hr]), and "A" equals the tributary drainage area (acres). The Modified Rational Method assumes that the runoff coefficient (C) remains constant during a storm. The runoff coefficient is a function of both the soil characteristics and the percentage of impervious surfaces in the drainage area. The rainfall intensity was determined using isohyets rainfall values according to the Los Angeles County Department of Public Works Hydrology Manual. The tributary drainage area was determined by delineating high points to create drainage boundaries and any subareas.*

uses and groundwater quality. Construction and operational activities evaluated include any potential dewatering activities during construction; changes in groundwater recharge based on proposed land use changes; infiltration capacity of the underlying soil; potential soil or shallow groundwater exposure to construction materials, wastes, or spilled materials; handling and storage of hazardous materials; and any potential groundwater remediation activities.

With regard to potential dewatering activities, an analysis of the Project's potential impacts associated with dewatering was conducted based on a simulation of construction dewatering associated with the excavation for the Excavation Area 1 (refer to Figure 2 of the Dewatering Report included in Appendix H.2 of this Draft EIR). Excavation Area 1 is the largest of the excavations by volume in the South Lot and where the recent groundwater occurs at a depth shallower than 50 feet below ground surface. As part of the Dewatering Report, a Project Site-specific, three-dimensional (3D) numerical groundwater model was developed in order to:

- Estimate the influx of groundwater with time into the excavation during construction of Excavation Area 1;
- Estimate the time required to lower the groundwater table to the target dewatering depth below the base of the excavation;
- Estimate the extent of groundwater drawdown and resulting change in groundwater flow directions (i.e., cone of depression) that would result from temporary construction dewatering activities;
- Simulate the lateral infiltration control measures; and
- Conduct sensitivity analyses to the dewatering simulations using a range of hydraulic conductivities and initial groundwater levels.

c. Project Design Features

No specific Project Design Features are proposed with regard to hydrology and water quality beyond applicable regulatory requirements, including improvements designed to meet LID requirements.

d. Analysis of Project Impacts

Threshold (a): Would the Project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?

(1) Impact Analysis

(a) Surface Water Quality

(i) Construction

During Project construction, particularly during the grading phase, stormwater runoff from precipitation events could cause exposed and stockpiled soils to be subject to erosion and convey sediments into municipal storm drain systems. In addition, on-site watering activities to reduce airborne dust could contribute to pollutant loading in runoff. Pollutant discharges relating to the storage, handling, use, and disposal of chemicals, adhesives, coatings, lubricants, and fuel could also occur. Additionally, the construction of the Radford Bridge may require the use of falsework within the Tujunga Wash. However, because Project construction would disturb more than one acre of soil, the Project would be required to obtain coverage under the NPDES Construction General Permit. In accordance with the requirements of the NPDES Construction General Permit, the Project would prepare and implement a Project Site-specific SWPPP adhering to the California Stormwater Quality Association BMP Handbook. The SWPPP would specify BMPs to be used during construction to manage stormwater and non-stormwater discharges. BMPs would include, but would not be limited to, the following: erosion control, sediment control, non-stormwater management, and materials management BMPs.

With the implementation of the SWPPP and Project Site-specific BMPs, the Project would reduce or eliminate the discharge of potential pollutants into stormwater runoff. In addition, Project construction activities would occur in accordance with City grading permit regulations (Chapter IX, Division 70 of the LAMC), which require the preparation and implementation of necessary measures, plans (including a wet weather erosion control plan if construction on the Project Site occurs during the rainy season), and inspections to reduce sedimentation and erosion. Erosion control BMPs may include slope drains that would be used to intercept and direct surface runoff or groundwater into a stabilized area or compost socks and berms that would act as three-dimensional biodegradable filtering structures to intercept runoff where sheet flow occurs. Furthermore, the construction of the Radford Bridge would also be subject to Los Angeles County Flood Control District permit requirements, which prohibit construction within the channel during the rainy season (October 15 to April 15) and require at least 33 percent of the channel be available for flow through with a temporary diversion for the remainder of the year.

As discussed in Section II, Project Description, of this Draft EIR, Project excavation would extend to a maximum depth of 50 feet. As discussed above in Section 2.b.(4)(c), the historic high groundwater level in both the North Lot and South Lot is 0 feet below the existing Project Site grade and was encountered at varying depths ranging between 30 feet and 42 feet below the existing Project Site grade within the South Lot and approximately 58 to 73 feet below the existing Project Site Grade within the North Lot. Therefore, dewatering

activities are expected during construction within the South Lot. Dewatering operations are practices that remove and discharge non-stormwater from an earthwork location into a drainage system in order to proceed with construction. Discharges from dewatering operations can contain high levels of fine sediments, which, if not properly treated, could lead to exceedance of NPDES requirements. During construction, temporary dewatering pumps and filtration would be used in compliance with all applicable NPDES requirements related to construction and discharges from dewatering operations, as well as the LARWQCB's Waste Discharge Requirements for Discharges of Groundwater from Construction and Project Dewatering to Surface Waters in Coastal Watersheds of Los Angeles and Ventura Counties.[33]

Overall, through compliance with NPDES requirements, site-specific BMPs included as part of the SWPPP, implementation of an erosion control plan as required by the LAMC, and all applicable City and County of Los Angeles regulations, construction of the Project would not result in discharges that would cause any of the applicable regulatory standards or waste discharge requirements to be violated in the Los Angeles River Watershed. Project construction activities also would not create substantial additional sources of polluted runoff, which could substantially degrade surface water quality. Thus, temporary construction-related impacts on surface water quality would be less than significant.

(ii) Operation

As is typical of most urban developments, stormwater runoff from the Project Site has the potential to introduce pollutants into the stormwater system. Anticipated and potential pollutants that may be generated by the Project include sediment, nutrients, pesticides, metals, pathogens, and oil and grease similar to existing conditions.

As previously described, under the City's LID Ordinance, post-construction stormwater runoff from new projects must be infiltrated, evapotranspirated, captured and used, and/or treated through high efficiency BMPs on-site for the volume of water produced by the greater of the 0.75-inch, 24-hour event and the 85th percentile 24-hour storm event. The Project would comply with the City's LID Ordinance. As noted above, the City's preferred LID improvement is on-site infiltration of stormwater. If infiltration is determined to be infeasible for the Project Site, the next tier in the LID Manual is a stormwater capture and reuse system. If capture and reuse is later determined to be infeasible, the Project would implement high efficiency biofiltration/bioretention systems pursuant to LID requirements.

[33] *Los Angeles Regional Water Quality Control Board, Coast Watersheds of Los Angeles and Ventura Counties, available at www.waterboards.ca.gov/rwqcb4/board_decisions/tentative_orders/general/npdes/cag994004/index.html, accessed January 16, 2025.*

Overall, the implementation of BMPs required by the City's LID Ordinance would reduce the pollutants generated by the Project that could potentially be carried in stormwater runoff. Furthermore, operation of the Project would not result in discharges that would cause regulatory standards to be violated as the Project would allocate a portion of the Project Site to BMPs specifically intended to control and treat stormwater runoff in compliance with the City's LID requirements, and, as discussed further under Threshold (b) below, decrease the amount of impervious surface. Additionally, since the existing Project Site discharges stormwater without any means of treatment, the introduction of on-site BMPs to treat stormwater runoff would represent an improvement as compared to existing conditions. The stormwater that would bypass the BMP systems would be greater than the 85th percentile storm volume and would have significantly less pollutants than the "first flush,", which would be captured by the Project's installed BMPs. Therefore, as the majority of potential contaminants are anticipated to be contained within the "first flush" 85th percentile storm event, major storms are not anticipated to cause an exceedance of regulatory standards. Overall, upon implementation of the Project, the Project Site would not increase concentrations of the pollutants listed as constituents of concern for the Los Angeles River Watershed.

The Project may modify the public alley along the southern boundary of the Project Site, consistent with City of Los Angeles Bureau of Engineering (BOE) standard plans for green streets.[34] Since the alley is wholly outside the Project property line, this potential improvement is not a requirement for storm water treatment. The potential alley improvements would allow runoff to be collected in the center of the alley and infiltrated into the ground, if infiltration is feasible. If infiltration is not feasible, the bottom of the alley would be lined with an impermeable liner, and water would pass through a gravel layer that may filter out larger pollutants before discharging to the Los Angeles River without infiltrating. This will provide a slightly higher level of treatment than currently exists within the alley. Overflow in the alley would sheet flow to the point of low elevation in the alley near the southeastern corner of the Project Site towards Colfax Avenue, where there is an existing catch basin that discharges to the Los Angeles River. The potential modifications to the alley would, therefore, reduce the amount of untreated stormwater runoff that discharges to a downstream receiving body.

Based on the above, with the incorporation of LID BMPs required by the City's LID Ordinance, operation of the Project would not result in discharges that would violate any surface water quality standards or waste discharge requirements, or create substantial additional sources of polluted runoff, which could substantially degrade surface water quality. Impacts to surface water quality during operation of the Project would be less than significant.

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[34] *City of Los Angeles, Bureau of Engineering, GREEN STREETS Standard Plans, https://apps.engineering.lacity.gov/techdocs/stdplans/s-400.htm, accessed December 3, 2024.*

(b) Groundwater Quality

(i) Construction

As provided in Section II, Project Description, of this Draft EIR, approximately 880,000 net cubic yards of soil would be exported from the Project Site throughout Project construction. Any contaminated soils found during excavation would be captured within that volume of excavated material, removed from the Project Site, and remediated at an approved disposal facility in accordance with applicable regulatory requirements and the Project's Soil Management Plan required by Mitigation Measure HAZ-MM-1.

As discussed above, Project construction activities are expected to encounter groundwater, and temporary dewatering would likely be required. If conditions warrant a temporary dewatering system, it would be installed and operated in accordance with NPDES requirements. Any discharge of groundwater during Project construction would comply with the applicable NPDES permit or industrial user sewer discharge permit and applicable LARWQCB requirements. As such, groundwater quality would not be negatively affected by potential dewatering activities.

As discussed in Section IV.I, Hazards and Hazardous Materials, of this Draft EIR, hazardous materials, such as fuels, paints, solvents, and concrete additives, could be used and would, therefore, require proper management and, in some cases, disposal. The management of any resultant hazardous wastes that may be encountered could increase the potential for hazardous materials to be released into the groundwater if these materials are released while the Project Site soils are exposed. Compliance with all applicable federal, state, and local requirements concerning the handling, storage and disposal of hazardous waste, including the applicable provisions of the CCR Title 22, which describes the protocol in the event of a hazardous waste discharge, transportation guidelines, standards for disposal facilities, contingency plans, emergency procedures, recordkeeping, and reporting, would reduce the potential for the construction of the Project to release contaminants into the groundwater that could affect existing contaminants, expand the area of groundwater contamination, or increase the level of contamination. In addition, as there are no existing groundwater production wells or public water supply wells within one mile of the Project Site, construction activities would not be anticipated to affect existing wells.

Based on the above, through compliance with applicable regulatory requirements, construction of the Project would not result in discharges that would violate any groundwater quality standard or waste discharge requirements or otherwise substantially degrade groundwater quality. Therefore, construction-related impacts on groundwater quality would be less than significant.

(ii) Operation

The Project does not include the installation or operation of permanent water wells, any extraction or recharge system that is in the vicinity of the coast, an area of known groundwater contamination or seawater intrusion, a municipal supply well, or a spreading ground facility.

In general, operational activities, which could affect groundwater quality, include spills of hazardous materials and leaking USTs. Surface spills from the handling of hazardous materials most often involve small quantities and are cleaned up in a timely manner, thereby resulting in little threat to groundwater. Other types of risks, such as leaking USTs, have a greater potential to affect groundwater. As discussed in Section IV.I, Hazards and Hazardous Materials, of this Draft EIR, no USTs are currently operated at the Project Site, and the Project would not introduce any new USTs that would have the potential to expose groundwater to contaminants. In addition, source control measures per the City's LID requirements, which include good housekeeping, removal of trash and maintenance of driveways and parking areas, and proper use and storage of pesticides, would also reduce surface water quality impacts and prevent pollutants from entering the groundwater by percolation within landscaped areas or other permeable surfaces. Any on-site use of hazardous materials to be used in association with operation of the Project, such as small quantities of potentially hazardous materials in the form of cleaning solvents, painting supplies, and pesticides for landscaping, as well as fuel storage associated with maintenance and/or emergency equipment, would be contained, stored, and used in accordance with manufacturers' instructions and handled in compliance with applicable standards and regulations such that no hazardous materials would be exposed to or otherwise adversely impact groundwater quality. The California Stormwater Quality Association provides suggested protocols, including, but not limited to, "spot cleaning" leaks and drips routinely, labeling drains within the facility boundary, posting signs to remind employees not to top off the fuel tank when filling, and reporting leaking vehicles to fleet maintenance, with which the Project would comply. Additionally, the Project does not involve drilling to or through a clean or contaminated aquifer.

Overall, the Project would comply with all applicable existing regulations that would prevent the Project from affecting or expanding any potential areas of contamination, increasing the level of contamination, or causing regulatory water quality standards at an existing production well to be violated, as defined in CCR Title 22, Division 4, Chapter 15 and the Safe Drinking Water Act. **Therefore, operation of the Project would not result in discharges that would violate any groundwater quality standard or waste discharge requirements or otherwise substantially degrade groundwater quality. The Project's potential impact on groundwater quality during operation would be less than significant.**

(2) Mitigation Measures

Project-level impacts related to water quality would be less than significant. Therefore, no mitigation measures are required.

(3) Level of Significance After Mitigation

Project-level impacts related to water quality were determined to be less than significant without mitigation. Therefore, no mitigation measures were required or included, and the impact level remains less than significant.

Threshold (b): Would the Project substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the Project may impede sustainable groundwater management of the basin?

(1) Impact Analysis

(a) Construction

As described in Section II, Project Description, of this Draft EIR, Project excavation would extend to a maximum depth of approximately 50 feet. While recent geotechnical investigations on the Project Site encountered groundwater beginning at a depth of 20 feet below grade, the City requires the use of the highest historical level for design and engineering purposes. As noted above, the historic high groundwater level on the Project Site is approximately 0 to 20 feet below ground surface for both the North and South Lots. Therefore, dewatering activities are expected during construction. In areas where excavations are planned and dewatering is necessary, the general contractor or designated subcontractor would obtain a discharge permit from an applicable agency for groundwater extracted during dewatering operations and would implement any required treatment. Notifications and reporting related to the applicable discharge permit would be the responsibility of the general contractor. Any water accumulated in excavations (e.g., from rainfall) would be managed in accordance with the SWPPP previously discussed.

All dewatering methods would be designed and plans submitted in compliance with the requirements of the local jurisdiction, which includes the LADBS Grading Division, LARWQCB, and/or LASAN, for review and approval, and their implementation would be performed, inspected, and monitored in compliance with all applicable regulatory requirements.

As previously discussed, a preliminary construction dewatering analysis was performed as part of the Dewatering Report that examined dewatering operations during construction of one of the proposed parking structures, and estimated total required

dewatering across the Project Site.[35] As detailed in the Dewatering Report included in Appendix H.2 of this Draft EIR, the total groundwater dewatering quantity that may be required during Project excavations was estimated to be approximately 35.7 million gallons or approximately 110 acre-feet. The San Fernando Valley Groundwater Basin surface area is approximately 226 square miles (approximately 145,000 acres), and the total basin groundwater storage capacity is reported to be approximately 3,670,000 acre feet. Thus, the quantity of groundwater removed via dewatering would be approximately 0.003 percent of the basin storage capacity, which would not interfere with any groundwater supply pumping in the vicinity of the Project Site.[36] Furthermore, no water supply wells are located at the Project Site or within one mile of the Project Site that could be impacted by construction. Also, as determined in the Subsidence Evaluation conducted to evaluate potential dewatering impacts, which is included in Appendix A of the Dewatering Simulation and Analysis, the depth and extent of groundwater drawdown would result in less than significant impacts and subsidence effects on the surrounding properties and structures. **Thus, construction activities for the Project would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the Project would impede sustainable groundwater management of the basin. Impacts on groundwater supplies during construction of the Project would be less than significant.**

(b) Operation

The Project Site is currently comprised of approximately 92-percent impervious surfaces, resulting in limited groundwater recharge. With implementation of the Project, the Project Site would be comprised of approximately 87 percent impervious surfaces. As such, the Project would decrease impervious surfaces. In addition, consistent with LID requirements to reduce the quantity and improve the quality of rainfall runoff that leaves the Project Site, if infiltration is feasible, the Project would include the installation of an infiltration system in the public alley adjacent to the southern Property line of the South Lot, which would allow runoff to be collected in the center of the alley and infiltrated into the ground. If infiltration is determined to be infeasible for the Project Site due to insufficient infiltration rates, subsurface conditions, or other factors related to the underlying soils, the next tier in the LID Manual is a stormwater capture and reuse system and biofiltration planter BMPs. Regardless of the system ultimately required to be installed within the Project Site, a portion of the stormwater would be captured to be infiltrated into the ground, while the excess stormwater would bypass the BMP systems and discharge to the Los Angeles River through an existing or proposed piped connection. This excess stormwater would not have the

[35] *Geosyntec, Preliminary Dewatering Simulation and Analysis for Excavation and Underground Parking Structure Construction, 4024–4200 Radford Avenue, Studio City, California, March 13, 2024.*

[36] *Dewatering would remove an estimated 110 acre-feet out of a basin that has an estimated 3,670,000 acre-feet. Accordingly, 110 acre-feet / 3,670,000 acre-feet = approximately 0.00003. 0.00003 x 100% = 0.003 percent.*

opportunity to discharge or infiltrate into the ground and would, thus, not affect groundwater hydrology, including the direction of groundwater flow. The quantity of water that would infiltrate through a LID BMP is not significant enough to permanently affect groundwater hydrology, including the direction of groundwater flow.

Therefore, the Project would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the Project may impede sustainable groundwater management. Impacts on groundwater supplies during operation of the Project would be less than significant.

In addition, per Project Design Feature GEO-PDF-1, the subterranean levels of the Project would be designed to withstand hydrostatic forces and incorporate comprehensive waterproofing systems in accordance with current industry standards, and permanent dewatering operations would not be required.

(2) Mitigation Measures

Project-level impacts related to groundwater supplies and groundwater recharge would be less than significant. Therefore, no mitigation measures are required.

(3) Level of Significance After Mitigation

Project-level impacts related to groundwater supplies and groundwater recharge were determined to be less than significant without mitigation. Therefore, no mitigation measures were required or included, and the impact level remains less than significant.

Threshold (c): Would the Project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or thorough the addition of impervious surfaces, in a manner which would:

i. Result in substantial erosion or siltation on- or off-site?

ii. Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?

iii. Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?

(1) Impact Analysis

(a) Construction

The Los Angeles River and Tujunga Wash are within and immediately adjacent to the Project Site. As previously described, the construction of the Radford Bridge may require the use of falsework within the Tujunga Wash. The construction of the Radford Bridge would be subject to County Flood Control permit requirements, which prohibit construction within the channel during the rainy season (October 15 to April 15) and require at least 33 percent of the channel capacity to be available for flow through with a temporary diversion for the remainder of the year.

Moreover, construction activities for the Project, including demolition, grading, and excavation, have the potential to temporarily alter existing drainage patterns and flows on the Project Site by exposing the underlying soils, modifying flow direction, and making the Project Site temporarily more permeable. Exposed and stockpiled soil could also be subject to erosion and conveyance into nearby storm drains during storm events. In addition, on-site watering activities to reduce airborne dust could contribute to pollutant loading in runoff. However, as discussed above, because the construction site would be greater than one acre, the Project would be required to obtain coverage under the NPDES Construction General Permit. In accordance with the requirements of this permit, the Project would implement a SWPPP that specifies BMPs and erosion control measures to be used during construction to manage runoff flows. These BMPs would be designed and selected to contain stormwater or construction watering on the Project Site such that runoff would not impact the capacities of off-site drainage facilities or the water quality of receiving waters. An erosion control plan, prepared and implemented in accordance with City grading permit regulations (LAMC Chapter IX, Division 70), would contain and treat stormwater or construction watering on-site to prevent runoff from resulting in substantial pollution or impacting off-site drainage facilities or receiving waters. Additionally, applicable California Stormwater Quality Association BMPs would be implemented for the proposed Radford Bridge construction.

In addition, Project construction activities would occur in accordance with all applicable City grading and off-site permit regulations that require necessary measures, plans, and inspections to reduce sedimentation and erosion.

Thus, through compliance with all applicable NPDES Construction General Permit requirements, including preparation of a SWPPP and implementation of BMPs, as well as compliance with applicable City grading permit regulations, Project construction activities would not substantially alter the Project Site drainage patterns in a manner that would result in substantial erosion, siltation, or flooding on- or off-site. In addition, the Project would not create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide

substantial additional sources of polluted runoff. As such, construction impacts related to erosion and flooding on- or off-site would be less than significant.

(b) Operation

As discussed above, the Project Site is currently comprised of approximately 92-percent impervious surfaces. With implementation of the Project, the Project Site would be comprised of approximately 87 percent impervious surfaces. As such, the Project would decrease impervious surfaces on the Project Site, and, similar to existing conditions, there would be a limited potential for erosion or siltation to occur from exposed soils or large expanses of pervious areas. In addition, as summarized in Table IV.I-2 on page IV.I-40, the overall flow rate would decrease with implementation of the Project. Specifically, the existing runoff flow during a 50-year storm event[37] is 128.40 cfs. As shown in Table IV.I-2, the Project's runoff flow would be 106.82 cfs during a 50-year storm event. Accordingly, there would be no increase in runoff volumes into the existing storm drain system. Rather, a comparison of the pre- and post-peak flow rates indicates an overall decrease of 16.8 percent. Therefore, the proposed on-site improvements would generate less runoff than the existing condition and would reduce the impact of the Project Site on the existing municipal drainage infrastructure.

Moreover, in terms of polluted runoff, the Project's proposed uses would be typical of studio operations and would not introduce substantial sources of pollution into the stormwater drainage system. As discussed above under Threshold (a), potential pollutants generated by the Project include sediment, nutrients, pesticides, metals, pathogens, and oil and grease. The implementation of BMPs required by the City's LID Ordinance would reduce the quantity of these pollutants on-site that could potentially be carried in stormwater runoff.

Regarding the Project's off-site improvements, these would consist of a new pedestrian and vehicular bridge (the Radford Bridge), as well as modifications to the public alley along the southern boundary of the Project Site. The proposed Radford Mobility Connector would not impact the amount of impervious area on the Project Site because it would be constructed above an existing concrete-lined channel. Therefore, any runoff generated would be the same as the runoff generated via rainfall on the existing concrete channel. Additionally, any runoff generated by rainfall would also still be routed back to the

[37] *Per the City's Special Order No. 007-1299, the City has adopted the Los Angeles County Department of Public Works (LACDPW) Hydrology Manual as its basis of design for storm drainage facilities. The Hydrology Manual requires projects to have drainage facilities to meet the Urban Flood level of protection, which is defined as runoff from a 25-year frequency storm falling on a saturated watershed. The L.A. CEQA Thresholds Guide, however, establishes the 50-year frequency design storm event as the threshold to evaluate potential impacts on surface water hydrology. Therefore, to provide a more conservative analysis of the ability of storm drain infrastructure to accommodate the demand generated by the Project, the higher 50-year storm event threshold was used.*

Table IV.I-2
Existing and Proposed Drainage Stormwater Runoff Calculations Summary

Drainage Area	Area (acres)[a]		Q_{50}[b] (cfs)		Percent Impervious	
	Existing	Proposed	Existing	Proposed	Existing	Proposed
North Lot	12.70	12.70	41.24	38.68	89%	89%
South Lot	30.47	30.47	83.56	64.54	93%	85%
1.77-Acre Parcel	1.77	1.77	3.60	3.60	100%	100%
Site Total	**44.94**	**44.94**	**128.40**	**106.82**	**92%**	**87%**

cfs = cubic feet per second

[a] *Total acreage does not include the Los Angeles River and Tujunga Wash areas.*

[b] *Q_{50} is the volumetric flow rate generated by a 50-year storm event.*

Source: KPFF Consulting Engineers, 2024.

channel below. Therefore, the proposed vehicular bridge would not have an impact on overall peak runoff rates or the existing municipal infrastructure.

Additionally, as previously discussed, if infiltration is feasible, the modifications to the public alley adjacent to the southern property line of the South Lot would convert the existing impervious area to mostly pervious area, which would contribute to the overall decrease in volumetric flow rate. If infiltration is infeasible, the proposed alley would not impact the amount of impervious area (as the alley is currently 100 percent impervious) and, thus, would not have an impact on the overall runoff rates. The proposed alley may also potentially slightly decrease runoff flow rates because the stormwater would first need to percolate through the proposed gravel layer that would underlay the green alley before being discharged to the municipal infrastructure.

Overall, the proposed on- and off-site improvements for the Project would not increase the total and peak runoff rates. **Therefore, operation of the Project would not substantially alter the existing drainage pattern of the Project Site or surrounding area such that substantial erosion, siltation, or on-site or off-site flooding would occur. In addition, the Project would not create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff. As such, operational impacts related to erosion, flooding on- or off-site, stormwater drainage systems would be less than significant.**

(2) Mitigation Measures

Project-level impacts related to erosion, flooding on- or off-site, and stormwater drainage systems would be less than significant. Therefore, no mitigation measures are required.

(3) Level of Significance After Mitigation

Project-level impacts related to erosion, flooding on- and off-site, and stormwater drainage systems were determined to be less than significant. Therefore, no mitigation measures were required or included, and the impact level remains less than significant.

Threshold (c): Would the Project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:

iv. impede or redirect flood flows?

As discussed in Section VI, Other CEQA Considerations, of this Draft EIR, and evaluated in the Initial Study included as Appendix A of this Draft EIR, the Project Site is not located within a 100-year flood hazard area as mapped by FEMA or by the City.[38,39] Thus, the Project would not impede or redirect flood flows. **As such, as determined in the Initial Study, the Project would not alter the existing drainage pattern of the Project Site in a manner that would impede or redirect flood flows. Therefore, no impacts relative to Threshold (c)iv would occur. No further analysis is required.**

Threshold (d): In flood hazard, tsunami, or seiche zones, would the Project risk release of pollutants due to project inundation?

As discussed in Section VI, Other CEQA Considerations, of this Draft EIR, and evaluated in the Initial Study prepared for the Project, included as Appendix A of this Draft EIR, the Project Site is not located within a 100-year flood hazard area as mapped by FEMA or by the City.[40,41] Also, given the distance of the Project Site from the Pacific Ocean, the

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[38] *Federal Emergency Management Agency, Flood Insurance Rate Map, Panel Number 06037C1320F, effective on September 25, 2008.*

[39] *City of Los Angeles, 2018 Local Hazard Mitigation Plan, Central APC, Figure 10-12., FEMA DFIRM Flood Hazard Areas, p. 10-34.*

[40] *Federal Emergency Management Agency, Flood Insurance Rate Map, Panel Number 06037C1320F, effective on September 25, 2008.*

[41] *City of Los Angeles, 2018 Local Hazard Mitigation Plan, Central APC, Figure 10-12., FEMA DFIRM Flood Hazard Areas, p. 10-34.*

City of Los Angeles does not map the Project Site as being located within a tsunami hazard area. Therefore, no tsunami or tsunami events would be expected to impact the Project Site. Additionally, there are no standing bodies of water near the Project Site that may experience a seiche. **As such, as determined in the Initial Study, the Project would not be located in flood hazard, tsunami, or seiche zones, and the Project would not risk release of pollutants due to Project inundation. Therefore, no impacts related to Threshold (d) would occur. No further analysis is required.**

Threshold (e): Would the Project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

As discussed in Section VI, Other CEQA Considerations, of this Draft EIR, and evaluated in the Initial Study prepared for the Project, included as Appendix A of this Draft EIR, potential pollutants generated by the Project would be typical of studio-related land uses and similar to existing conditions. The implementation of BMPs required by the City's LID Ordinance would reduce the quantity of these pollutants on-site that could potentially be carried in stormwater runoff. While the existing Project Site does not have any structural or LID BMPs to treat or infiltrate stormwater beyond landscaped stormwater infiltration basins in some of the parking areas, implementation of the LID features proposed as part of the Project would result in an improvement in surface water quality runoff as compared to existing conditions. As such, the Project would not introduce new pollutants or an increase in pollutants that could conflict with or obstruct any water quality control plans for the Upper Los Angeles River Watershed.

With regard to conflicting or obstructing any sustainable groundwater management plans, with implementation of the Project, the Project Site would decrease impervious surfaces. Further, consistent with LID requirements to reduce the quantity and improve the quality of rainfall runoff that leaves the Project Site, the Project would include the installation of LID BMPs as established by the LID Manual. The Project's increase in pervious surfaces, as well as the installation of the capture and reuse or biofiltration system, would improve the groundwater recharge capacity of the Project Site compared to existing conditions.

As such, as determined in the Initial Study, with compliance with existing regulatory requirements and implementation of LID BMPs, the Project would not conflict with or obstruct implementation of a water quality control plan or a sustainable groundwater management plan. Therefore, impacts relative to Threshold (e) would be less than significant. No further analysis is required.

Threshold (f): Require or result in the relocation or construction of new or expanded water, wastewater or storm water drainage, electric power, natural gas,

or telecommunications facilities, the construction or relocation of which could cause significant environmental effects.[42]

(1) Impact Analysis

In accordance with LID requirements, the Project BMPs would control stormwater runoff, with no increase in runoff resulting from the Project, as shown in Table IV.I-2 on page IV.I-40. Specifically, the existing flow rate of approximately 128.40 cfs would decrease with implementation of the Project to approximately 106.82 cfs. Therefore, stormwater flows from the Project Site would not increase due to the Project. **As such, the Project would not create or contribute additional runoff water that would exceed the capacity of the existing stormwater system and require or result in the relocation or construction of new or expanded stormwater drainage facilities. Therefore, Project impacts associated with requiring or resulting in the relocation or construction of new or expanded stormwater drainage facilities would be less than significant.**

(2) Mitigation Measures

Project-level impacts related to stormwater drainage facilities would be less than significant. Therefore, no mitigation measures are required.

(3) Level of Significance After Mitigation

Project-level impacts related to stormwater drainage facilities were determined to be less than significant. Therefore, no mitigation measures were required or included, and the impact level remains less than significant.

e. Project Impacts with Long-Term Buildout

While Project buildout is anticipated in 2028, the Applicant is seeking a Development Agreement with a term of 20 years, which could extend the full buildout year to approximately 2045. The Development Agreement would confer a vested right to develop the Project in accordance with the Specific Plan and Mitigation Monitoring Program (MMP) throughout the term of the Development Agreement. The Specific Plan and MMP would continue to regulate development of the Project Site and provide for the implementation of all applicable Project design features and mitigation measures associated with any development activities during

[42] *In the CEQA Guidelines, this threshold appears under Section XIX, Utilities and Service Systems as Threshold (a). However, as it relates to water, wastewater, stormwater, and energy and telecommunications infrastructure, it is addressed in each of these respective sections of the EIR. Refer to Sections IV.O.1, Utilities and Service Systems—Water Supply and Infrastructure, IV.O.2, Utilities and Service Systems—Wastewater, and IV.O.4, Utilities and Service Systems—Energy Infrastructure, respectively, for a discussion of the other topics in this threshold.*

and beyond the term of the Development Agreement. Additionally, given that impacts related to hydrology and water quality are site-specific and do not typically vary over the course of relatively short timeframes, a later buildout date would not affect the impacts or significance conclusions presented above.

f. Cumulative Impacts

(1) Impact Analysis

(a) Surface Water Quality

As detailed in Section III, Environmental Setting, of this Draft EIR, a total of 13 related projects have been identified in the vicinity of the Project Site through 2028, the Project's anticipated buildout year.[43] These related projects reflect the diverse range of land uses in the vicinity of the Project Site. Specifically, the related projects comprise a variety of uses, including residential, restaurants, office, and retail uses, as well as mixed-use developments incorporating some or all of these elements. As discussed above, stormwater runoff from most urban development sites has the potential to introduce pollutants into the stormwater system. Given the similar types of land uses proposed by the related projects (as compared to heavy industrial, agricultural, or other such uses which may be expected to produce more pollution), anticipated and potential pollutants generated by the related projects could also include sediment, nutrients, pesticides, metals, pathogens, and oil and grease. As with the Project, related projects would also be subject to NPDES requirements relating to water quality for both construction and operation. In particular, related projects would be required, pursuant to the City's LID Ordinance, to implement BMPs that would target potential pollutants that could be carried in stormwater runoff. **Therefore, through full compliance with all applicable local, state, and federal laws, rules and regulations, as well as implementation of site-specific recommendations for the Project and related projects, cumulative impacts associated with surface water quality would be less than significant.**

(b) Groundwater Quality

As noted above, the related projects comprise a variety of uses, including residential, restaurants, hotels, office, and retail uses, as well as mixed-use developments incorporating some or all of these elements. As with the Project, these related projects would be anticipated to involve the use, handling, storage, and disposal of similar potentially hazardous materials and wastes typical of such urban uses that could be released into the groundwater. However, as with the Project, the related projects would be required to comply

[43] *While Project buildout is anticipated in 2028, the Applicant is seeking a Development Agreement with a term of 20 years, which could extend the full buildout year to approximately 2045. A later buildout date would not affect the cumulative impact analysis related to land use and planning.*

with all applicable federal, state, and local requirements concerning the handling, storage and disposal of hazardous waste, which would reduce the potential for the release of contaminants into groundwater. Other potential effects to groundwater quality, including from USTs and oil wells, are site-specific and would be addressed by each individual related project. As with the Project, related projects would also comply with applicable regulations during construction as discussed above for the Project and would implement site-specific measures where needed. **Therefore, through full compliance with all applicable local, state, and federal laws, rules and regulations, as well as implementation of site-specific recommendations for the Project and related projects, cumulative impacts associated with groundwater quality would be less than significant.**

(c) Surface Water Hydrology

The geographic context for the cumulative impact analysis on surface water hydrology is the Los Angeles River Watershed. In accordance with City requirements, the related projects would be required to implement BMPs to manage stormwater in accordance with LID guidelines. Furthermore, the City of Los Angeles Department of Public Works would review each related project on a case-by-case basis to ensure sufficient local and regional storm water drainage infrastructure is available to accommodate stormwater runoff. **Therefore, through full compliance with all applicable local, state, and federal laws, rules and regulations, as well as implementation of site-specific recommendations for the Project and related projects,cumulative impacts associated with surface water hydrology would be less than significant.**

(d) Groundwater Hydrology

Cumulative groundwater hydrology impacts could result from the overall utilization of groundwater basins located in proximity to the Project Site and other related projects in the vicinity of the Project Site. In addition, interruptions to existing hydrology flow by dewatering operations during construction would have the potential to temporarily affect groundwater levels. However, no water supply wells, spreading grounds, or injection wells are located within a one-mile radius of the Project Site. As with the Project, any related project would be required to evaluate its individual impacts to groundwater hydrology due to temporary or permanent dewatering operations. Similar to the Project, other development projects within the groundwater basin would likely incorporate structural designs for subterranean levels that are able to withstand hydrostatic forces and incorporate comprehensive waterproofing systems in accordance with current industry standards and construction methods. If any related project requires permanent dewatering systems, such systems would be regulated by the SWRCB. Should excavation for other related projects extend beneath the groundwater level, temporary groundwater dewatering systems would be designed and implemented in accordance with NPDES permit requirements. Additionally, as with the Project, related projects would be required to implement BMPs to capture stormwater runoff on-site, thereby minimizing effects on groundwater recharge. **Therefore, through full**

compliance with all applicable local, state, and federal laws, rules and regulations, as well as implementation of site-specific recommendations for the Project and related projects,cumulative impacts associated with groundwater hydrology would be less than significant.

(2) Mitigation Measures

Cumulative impacts related to hydrology and water quality would be less than significant. Therefore, no mitigation measures are required.

(3) Level of Significance After Mitigation

Cumulative impacts related to hydrology and water quality were determined to be less than significant without mitigation. Therefore, no mitigation measures are required or included, and the impact level remains less than significant.