IV. Environmental Impact Analysis
G. 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 (Hydrology Report) prepared by KPFF Consulting Engineers (KPFF), which is provided in Appendix H of this Draft EIR.[1]

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
- Sustainable Groundwater Management Act of 2014
- Water Replenishment District of Southern California
- County of Los Angeles Hydrology Manual

[1] KPFF Consulting Engineers, Hydrology and Water Quality Report, TVC 2050 Project, 7800 Beverly Boulevard, Los Angeles, CA 90035, October 2021.

- NPDES Permit Program
- Enhanced Watershed Management Program for the Ballona Creek Watershed
- 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 (No. 181,899)
- 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.[2] 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 Clean Water Act 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.

The USEPA NPDES Program requires NPDES permits for: (1) Municipal Separate Storm Sewer Systems (MS4) Permit 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

[2] United States Environmental Protection Agency, Clean Water Act, 2002.

requirements for NPDES permits to numerous small municipal separate storm sewer systems, 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 Clean Water Act and requires states to develop state-wide antidegradation policies and identify methods for implementing them.[3] Pursuant to the Code of Federal Regulations, 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.[4] 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: rivers, lakes, reservoirs, springs, and groundwater wells. Under 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 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 hazards.[5] FEMA provides flood insurance rate maps (FIRMs) for local and regional

[3] United States Environmental Protection Agency, Water Quality Standards Handbook—Chapter 4: Antidegradation, 2010.

[4] United States Code, Title 42—The Public Health and Welfare, Chapter 6A Public Health and Service, Safe Drinking Water Act. 2006 Edition, Supplement 4, 2006.

[5] The National Flood Insurance Act of 1968, as amended, and The Flood Disaster Protection Act of 1973, 42 U.S.C. 4001 et. seq.

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.[6] 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 Region (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 RWQCB is also given authority to issue waste discharge requirements, enforce actions against stormwater discharge violators, and monitor water quality.[7]

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

[7] U.S. Environmental Protection Agency, Clean Water Act, 2016.

(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.[8] 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 (Cal-EPA) promulgated the California Toxics Rule, which establishes water quality criteria for certain toxic substances to be applied to waters in the State.[9] Cal-EPA promulgated this rule based on Cal-EPA'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 State Water Resources Control Board (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.

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

[9] U.S. Environmental Protection Agency, Water Quality Standards, Establishment of Numeric Criteria for Priority Toxic Pollutants for the State of California, 2001.

(3) Regional

(a) Water Replenishment District of Southern California

The City of Los Angeles 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 groundwater sustainability agency (GSA) to prepare and submit a groundwater sustainability plan; or 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.[10] 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 of Los Angeles (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.[11] 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. Areas with sump conditions are required to have a storm drain conveyance system capable of conveying 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.

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

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

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 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, referred to as General Permit for Stormwater Discharges from Construction Activities by the SWRCB, 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 General Permit must prepare and implement a SWPPP that meets the requirements of the General Permit.[12] 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:

[12] State Water Resources Control Board, Construction Stormwater Program, June 10, 2021, www.waterboards.ca.gov/water_issues/programs/stormwater/construction.html, accessed August 24, 2021.

- 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.

- 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 most recently amended the permit on July 17, 2012 (Order No. 2012-0006-DWQ, General NPDES Permit No. CAS000002). The Construction General Permit regulates construction activity, including clearing, grading, and excavation of areas one 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 ground water, 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. A NPDES Permit for dewatering discharges was adopted by the LARWQCB on September 13, 2018 (Order No. R4-2018-0125, General NPDES Permit No. CAG994004. 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 November 13, 2023.[13] 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, 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.[14]

(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, NPDES Permit No. CAS004001).

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[13] Los Angeles Regional Water Quality Control Board, Order No. R4-2018-0125, 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, 2018.

[14] Los Angeles Regional Water Quality Control Board, Order No. R4-2013-0095, 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, 2013.

The Los Angeles County MS4 Permit has been determined by the State Water Resources Control Board to be consistent with the requirements of the Clean Water Act and the Porter-Cologne Act for discharges through the public storm drains in Los Angeles County to statutorily defined waters of the United States (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.

Under the amended Los Angeles County MS4 Permit, the County and City are both required to implement development planning guidance and control measures that control and mitigate stormwater quality and runoff volume impacts to receiving waters as a result of new development and redevelopment. The County and the City also are required to implement other municipal source detection and elimination programs, as well as maintenance measures.

Under the 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, except where the Standard Urban Stormwater Mitigation Plan (SUSMP) is proven applicable. 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.

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 (LID Ordinance), as authorized by Los Angeles Municipal Code (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), 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.[15] 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 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.

(d) Enhanced Watershed Management Program for the Ballona Creek Watershed

The Enhanced Watershed Management Program (EWMP) for the Ballona Creek Watershed describes a customized compliance pathway that Los Angeles County MS4 Permittees in the watershed will utilize to fulfill the Watershed Management Program requirements contained in the 2012 MS4 Permit (Order No. R4-2012-0175; NPDES Permit No. CAS004001). The EWMP for the Ballona Creek Watershed identifies a detailed implementation strategy that provides not only water quality improvement but also environmental, aesthetic, recreational, water supply and/or other community enhancements.[16]

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[15] 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.

[16] Ballona Creek Watershed Management Group, Enhanced Watershed Management Program for the Ballona Creek Watershed, January 2016, Pages 1-1.

The EWMP utilizes a multi-pollutant approach that maximizes the retention and use of urban runoff as a resource for water reuse, irrigation, and indoor use, while also creating additional benefits for the communities in the Ballona Creek Watershed. The EWMP also presents watershed control measures to address applicable stormwater quality regulations, including LID control measures, green streets wherein street rights-of-way are landscaped to provide surfaces that retain runoff, and regional projects that are able to capture runoff from large upstream areas.[17]

(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 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

[17] Ballona Creek Watershed Management Group, Enhanced Watershed Management Program for the Ballona Creek Watershed, January 2016, Pages 1-1 and 1-2.

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, the additional and/or alternative, site-specific BMPs or conditions deemed appropriate to achieve the objectives of this Ordinance as defined in Subsection B of LAMC Section 64.70.

(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 SUSMP 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. The LID Ordinance (see below) applies first to a project in lieu of SUSMP. If a large project cannot meet the requirements of the LID Ordinance, then SUSMP measures are applied.

(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, effective May 12, 2012, and updated in updated September 2015 (Ordinance No. 183,833), 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.[18]

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 are intended to be inclusive of, and potentially exceed, SUSMP standards, 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.

[18] 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.[19] 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 bio-filtration/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.[20]

The LID Ordinance applies first to a project in lieu of SUSMP. 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) was developed by the Department of Public Works, Bureau of Sanitation, Watershed Protection Division, and was adopted in April 2009.[21]

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.

[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.

[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.

(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 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. The Development Best Management Practices Handbook, Part A: Construction Activities, provides specific minimum BMPs for all construction activities.[22] The Development Best Management Practices Handbook, Low Impact Development Manual, Part B: Planning Activities (5th edition, May 2016) (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.[23] 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

[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.

[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.

rename it the Flood Hazard Management Ordinance (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 Flood Insurance Study (FIS) for The Los Angeles County dated December 2, 1980, the Ordinance establishes certain polices 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.

b. Existing Conditions

(1) Surface Water Quality

(a) Regional

The Project Site is located within the Ballona Creek Watershed. As discussed in the Hydrology Report, water quality in the majority of Ballona Creek (8.75 miles, including the Ballona Estuary, terminating in the Pacific Ocean) has been impaired by pollutants from dense clusters of residential, industrial, and other urban activities. Constituents of concern listed for the Ballona Creek Watershed under California's Clean Water Act Section 303(d) List include cadmium (sediment), chlordane (tissue and sediment), coliform bacteria, copper (dissolved), cyanide, Dichlorodiphenyltrichloroethane (DDT), lead, polycyclic aromatic hydrocarbons (PAHs), polychlorinated biphenyls (PCBs), selenium, sediment toxicity, Shellfish Harvesting Advisory, silver, toxicity, trash, viruses (enteric), and zinc.

Pursuant to Section 303(d) of the federal Clean Water Act, the State and RWQCBs identify impaired bodies of water that do not meet water quality standards and prioritizes and schedules them for development of Total Maximum Daily Loads (TMDLs). A TMDL specifies the maximum amount of a pollutant that a water body can receive and still meet water quality standards. Those facilities and activities that are discharging into the water body, collectively, must not exceed the TMDL. The Ballona Creek Watershed has TMDLs for PCBs, DDT, cadmium, zinc, chlordane, indicator bacteria, PAHs, copper, toxicity, lead, silver, trash, and viruses (enteric).

(b) Local

In general, urban stormwater runoff occurs following precipitation events. The volume of runoff flowing into the drainage system depends 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 of Los Angeles typically installs catch basins with screens to capture debris before entering the storm drain system. In addition, the City conducts routine street cleaning operations as well as periodic cleaning and maintenance of catch basins to reduce stormwater pollution within the City.

(c) On-Site

The Project Site does not currently have structural BMPs in place for the treatment of stormwater runoff from existing impervious surfaces such as building roof areas and pavement since the existing buildings were developed prior to the adoption of stormwater quality BMP requirements, nor does the Project Site currently have a means of treatment for stormwater runoff. Based on existing operations within the Project Site, the on-site runoff is anticipated to contain the following typical pollutants of concern: nutrients, pesticides, metals, pathogens, oil, and grease.

(2) Surface Water Hydrology

(a) Regional

As previously noted, the Project Site is located within the Ballona Creek Watershed in the Los Angeles Basin. The Ballona Creek Watershed covers approximately 130 square miles in the coastal plain of the Los Angeles Basin. The Ballona Creek Watershed drains westerly towards the Pacific Ocean and is bounded by the Santa Monica Mountains to the north, the Harbor Freeway (I-110) to the east, and the Baldwin Hills to the south. The Ballona Creek Watershed includes the cities of Beverly Hills, West Hollywood, portions of the cities of Los Angeles, Culver City, Inglewood and Santa Monica, unincorporated areas of Los Angeles County, and areas under the jurisdiction of Caltrans. The watershed is highly developed, predominantly consisting of 64 percent residential uses, four percent industrial uses, 17 percent vacant/open space, and eight percent commercial uses. Overall, 76 percent of the watershed is covered by buildings, roads, rooftops, and other impervious surfaces.

Ballona Creek flows as an open channel for just under 10 miles from mid-Los Angeles (south of Hancock Park) through Culver City, reaching the Pacific Ocean at Playa del Rey (Marina del Rey Harbor), where it discharges into Santa Monica Bay. Ballona Creek is designed to discharge up to approximately 71,400 cubic feet of stormwater per second (cfs) into the Santa Monica Bay from a 50-year frequency storm event. The estuary portion of the creek, from Centinela Avenue to the outlet, is soft bottomed, while the remainder of the creek is lined in concrete. Ballona Creek is fed by a network of underground storm drains, which reaches north into Beverly Hills and West Hollywood. Major tributaries of the creek and estuary include Centinela Creek, Sepulveda Channel, and Benedict Canyon Channel. The average dry weather flow at the watershed's terminus

in Playa del Rey is 25 cfs which indicates a slow, steady flow. The average wet weather flow is at least 10 times higher during large storms.

(b) Local

Stormwater runoff is collected from the Project Site and conveyed through off-site storm drain facilities under the public streets surrounding the Project Site. According to City of Los Angeles records, near the southern Project Site boundary there is an existing drainage system consisting of valley gutters, inlets, and an existing 24-inch underground stormwater pipe that slopes west to the existing 90-inch by 144-inch stormwater pipe within Fairfax Avenue. Stormwater runoff from the Project Site and surrounding properties discharges toward City catch basins and underground storm drainpipes which convey stormwater through various underground pipe networks into Ballona Creek.

(c) On-Site

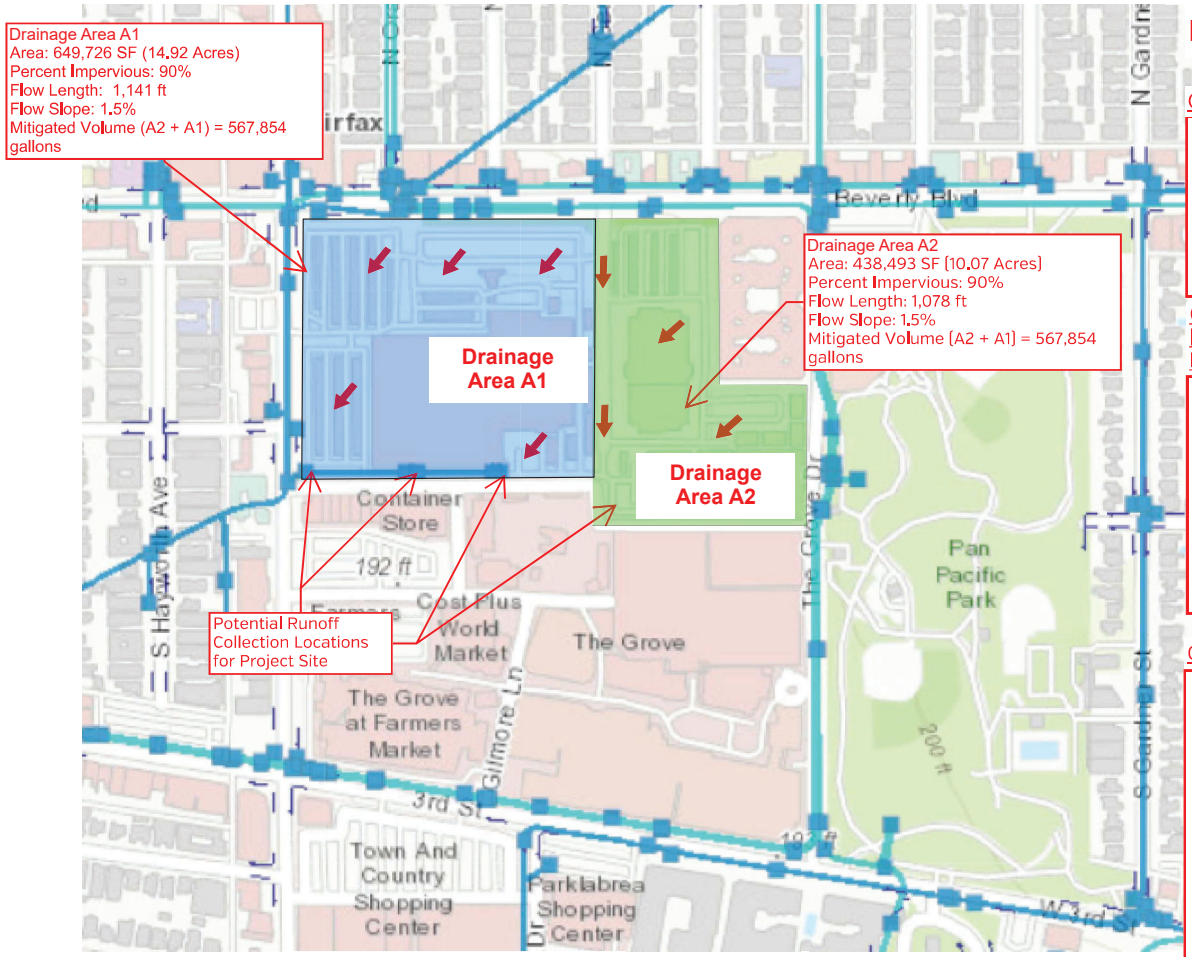
The Project Site is currently developed with approximately 90 percent impervious surfaces associated with large expanses of surface parking, buildings, and limited landscaping. As shown in Figure IV.G-1 on page IV.G-21, based on the Project Site survey by Psomas dated October 28, 2020 and Project Site observations, it was determined that under existing conditions, the Project Site is divided into two drainage areas which are divided by the extension of Genesee Avenue. The western portion of the Project Site is considered Drainage Area A1 and the eastern portion is considered Drainage Area A2. Both drainage areas generally slope south towards the southern Project Site boundary, specifically from the northeast to the southwest corner with approximately 16 feet of elevation change (from approximately 201 to 185 feet above mean sea level [AMSL]).[24] The Project Site sheet flows towards the southern boundary and into the underground drainage system described above. As shown in Table IV.G-1 on page IV.G-36 in the analysis below, the 50-year frequency storm event peak flow rate within the existing Project Site is 53.47 cfs.

(3) Groundwater Quality

(a) Regional

The City overlies the Los Angeles Coastal Plain 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 those concerning

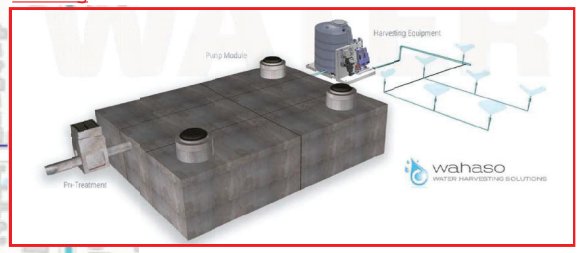
[24] The Project Site's grade level is established at an elevation of 201 feet AMSL (referred to herein as Project Grade), which represents the base level of production activity and a substantial portion of the existing topographic elevation of the Project Site.



Proposed Capture and Use System

Contech CDS Pretreatment Unit

Oldcastle STORMCAPTURE® Harvesting System (image below) or Cistern to be interrogated into the building



Oldcastle STORMCAPTURE® Harvesting System - Line Diagram

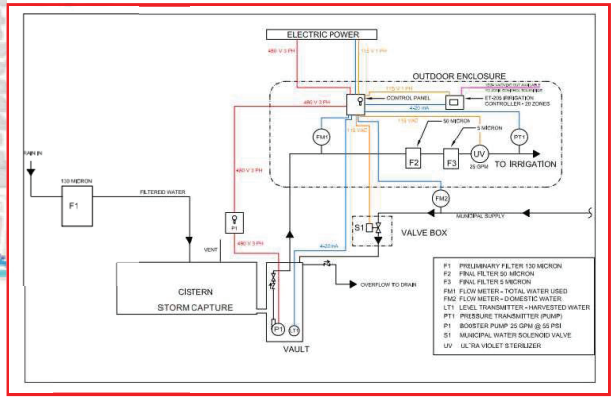


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Figure IV.G-1
Project Site Drainage

Source: KPFF Consulting Engineers, 2021

bacteria, chemical constituents and radioactivity, mineral quality, nitrogen (nitrate and nitrite), taste, and odor.

(b) Local

The Project Site overlies the Hollywood Subbasin within the Los Angeles Coastal Plain Groundwater Basin. Pursuant to LARWQCB's Basin Plan, constituents of concern listed for the Hollywood Subbasin include boron, chloride, sulfate, and Total Dissolved Solids (TDS).

(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 unpaved area (approximately 10 percent, or 108,900 square feet) on the Project Site and the depth of existing groundwater on-site as shallow as eight feet, as well as the flow direction of current Project Site drainage, the Project Site contributes minimally 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.F, 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 the groundwater basins in Los Angeles County. As indicated above, the City of Los Angeles overlies the Los Angeles Coastal Plain Groundwater Basin. The Los Angeles Coastal Plain Groundwater Basin is comprised of the Hollywood, Santa Monica, Central, and West Coast Groundwater Subbasins. Groundwater flow in the Los Angeles Coastal Plain Groundwater Basin is generally south-southwesterly and may be restricted by natural geological features. Replenishment of groundwater basins occurs mainly by percolation of precipitation throughout the region via permeable surfaces, spreading grounds, and groundwater migration from adjacent basins; stream flow from the higher elevation areas to the north; as well as injection wells designed to pump fresh water along specific seawater barriers to prevent the intrusion of salt water. The paving of streets and lining of drainage channels have greatly decreased the surface area open to direct percolation. Subsurface inflow may take place to a limited extent from underflow through fractured rock of the Santa Monica Mountains.

(b) Local

As previously discussed, the Project Site is located within the Los Angeles Coastal Plain Groundwater Basin and specifically overlies the Hollywood Subbasin. The Hollywood Subbasin is bounded on the north by the Santa Monica Mountains and the Hollywood fault, on the east by the Elysian Hills, on the west by the Inglewood fault zone, and on the south by the La Brea High, which is formed by an anticline that brings impermeable rocks close to the surface. Surface drainage in the subbasin flows southward to join Ballona Creek, then westward to the Pacific Ocean. The Hollywood Subbasin encompasses a surface area of approximately 16.4 square miles and is estimated to have a total storage capacity of approximately 200,000 acre-feet (af).[25] Groundwater in the Hollywood Subbasin is replenished by percolation of precipitation and stream flow from the higher areas to the north. The average annual precipitation of the subbasin ranges from 12 to 14 inches. The paving of streets and lining of drainage channels have greatly decreased the surface area open to direct percolation. Subsurface inflow may potentially take place to a limited extent from underflow around the La Brea High. Therefore, natural recharge is somewhat limited. The natural safe yield of the Hollywood Subbasin is undetermined.[26] The City of Beverly Hills is currently the only major pumper in the subbasin and operates at an estimated maximum safe yield of 4,400 af per year.[27]

(c) On-Site

As previously noted, the Project Site overlies the Hollywood Subbasin of the Coastal Plain of the Los Angeles Groundwater Basin. The Project Site slopes downward from the northeast to the southwest corner with approximately 16 feet of elevation change.

With regard to groundwater levels, as discussed in Section IV.D, Geology and Soils, soil borings were drilled to depths between 50 and 70 feet below the ground surface at the Project Site during a field investigation performed by Geotechnologies, Inc. in April 2021, and groundwater was first encountered at varying depths between 20 and 30 feet below ground surface. Prior to backfilling the boreholes, the groundwater level rose to depths between eight to 15.5 feet below the existing Project Site grade of 201 feet AMSL, indicating an artesian groundwater condition where groundwater with a positive hydrostatic

[25] California Department of Water Resources, California's Groundwater Bulletin 118, Coastal Plain of Los Angeles Groundwater Basin, Hollywood Subbasin, February 27, 2004.

[26] Ibid.

[27] Ibid.

pressure is trapped between relatively impermeable clay layers.[28] Historically, the highest groundwater reported is approximately eight feet below the existing Project Site grade.

As discussed above, the Project Site is currently approximately 90 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 surrounding vicinity.

(5) Flood Zone

Based on the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps, the Project Site is not located within a 100-year flood zone. The northwestern portion of the Project Site is located within an area of minimal flood hazard while the remainder is located within Zone X, which is a flood hazard zone with a 0.2 percent annual chance of flooding.

3. Project Impacts

a. Thresholds of Significance

In accordance with Appendix G of the State 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;

[28] As discussed in Section IV.F, Hazards and Hazardous Materials, of this Draft EIR, investigations conducted by Geosyntec between 2018 and 2020 encountered groundwater at depths of approximately 10 and 25 feet bgs. Groundwater was slow to enter the boreholes at most locations and tended to rise in the boreholes above where it was first observed, similarly indicating confined or semi-confined groundwater conditions.

(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 a 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.

For this analysis, the Appendix G Thresholds listed above are relied upon. The analysis utilizes factors and considerations identified in the City's 2006 L.A. CEQA Thresholds Guide, as appropriate, to assist in answering the Appendix G Threshold questions.

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

- "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 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 Report prepared by KPFF dated October 2021, included as Appendix H 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.

(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 (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. 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.[29] 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

[29] The equation used in the Modified Rational Method is Q=C x I x A, where "Q" equals the volumetric flow, "C" equals the runoff coefficient, "I" equals the rainfall intensity, and "A" equals the basin area. 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.

concentration calculations as well as the peak runoff rates and volumes using the Modified Rational Method design criteria. The data input requirements include: sub-area size, soil type, land use, flow path length, flow path slope and rainfall isohyet. HydroCalc was used to calculate the storm water peak runoff flow rate for the Project Site by evaluating an individual sub-area independent of all adjacent subareas.

(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, including groundwater level, quality, and direction of flow, as well as groundwater uses and an evaluation of the potential impacts due to construction and operation of the Project to affect those uses and groundwater quality. As part of this analysis, the area and degree of permeability of soils on the Project Site were also assessed. Construction and operational activities evaluated include any potential dewatering activities during construction; the reduction of groundwater resources; changes in local or regional groundwater flow patterns; changes in groundwater quality; 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.

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. It is anticipated that Project earthwork activities would include an estimated 772,000 cubic yards of cut, potentially 50,000 cubic yards of imported fill, and up to 772,000 cubic yards of export. These

activities would temporarily expose the underlying soils and may make the Project Site temporarily more permeable. 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. However, as 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 site-specific SWPPP that specifies BMPs to be used during construction to manage stormwater and non-stormwater discharges. BMPs would include, but would not be limited to, erosion control, sediment control, non-stormwater management, and materials management BMPs. In addition, Project construction activities would occur in accordance with City grading permit regulations (LAMC Chapter IX, Division 70), including the preparation and implementation of an erosion control plan, to reduce the effects of sedimentation and erosion. Erosion control BMPs may include slope drains that can be used to intercept and direct surface runoff or groundwater into a stabilized area or compost socks and berms that act as three-dimensional biodegradable filtering structures to intercept runoff where sheet flow occurs.

As discussed in Section II, Project Description, of this Draft EIR, excavation for below-grade parking would extend to a maximum depth of 45 feet below Project Grade. As discussed in Section IV.D, Geology and Soils, of this Draft EIR, the historic high groundwater level on the Project Site is approximately eight feet below the existing Project Site grade. Therefore, Project construction activities could encounter groundwater, and dewatering may be necessary. 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 utilized in compliance with the NPDES permit. These temporary systems would comply 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.[30]

With the implementation of site-specific BMPs included as part of the SWPPP and implementation of an erosion control plan as required by the LAMC, the Project would

[30] 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 August 31, 2021.

reduce or eliminate the discharge of potential pollutants from stormwater runoff. **As such, with compliance with NPDES requirements and City of Los Angeles grading permit regulations, construction of the Project would not result in discharges that would violate any surface water quality standard or waste discharge requirements or otherwise substantially degrade surface water quality. Thus, temporary construction-related impacts on surface water quality would be less than significant.**

(ii) Operation

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 85th percentile storm event. According to the Geotechnical Investigation prepared for the Project (see Appendix E of this Draft EIR), groundwater infiltration is not feasible for the Project Site. The next tier in the LID Manual is a stormwater capture and use system. Therefore, consistent with LID requirements to reduce the quantity and improve the quality of rainfall runoff from the Project Site, the Project would include the installation of a capture and use system to be used for irrigation purposes. If capture and use is later determined to not be feasible, the Project would implement high efficiency biofiltration/bioretention systems pursuant to LID requirements. The installed BMP systems would be designed with an internal bypass overflow system to prevent upstream flooding during major storm events. The stormwater which bypasses the BMP systems would discharge to an approved discharge point in the public right-of-way. 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. 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 generated by the Project include sediment, nutrients, pesticides, metals, pathogens, and oil and grease, similar to existing conditions. The implementation of BMPs required by the City's LID Ordinance would target these pollutants that could potentially be carried in stormwater runoff. Further, the introduction of BMPs on-site to treat stormwater runoff would represent an improvement as compared to existing conditions. **Therefore, with the incorporation of LID BMPs, operation of the Project would not result in discharges that would violate any surface water quality standards or waste discharge requirements and impacts to surface water quality during operation of the Project would be less than significant.**

(b) Groundwater Quality

(i) Construction

As discussed above, Project construction activities could encounter groundwater, and temporary dewatering would likely be required. If conditions warrant, a temporary

dewatering system consisting of pumps and filtration 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.

The presence of any UST or the removal of a UST also could affect groundwater quality. As discussed in Section IV.F, Hazards and Hazardous Materials, of this Draft EIR, all former USTs have been removed from the Project Site, and there is no evidence of existing USTs on-site.

Oil wells may also affect groundwater quality. As discussed in Section IV.F, Hazards and Hazardous Materials, of this Draft EIR, the Project Site is located within the Salt Lake Oil Fields and the La Brea Oil Field. However, no oil/gas production wells or oil derricks were identified on-site in any topographic maps, aerial photographs, or CalGEM's Well Finder database.

As also discussed in Section IV.F, Hazards and Hazardous Materials, of this Draft EIR, based on recent subsurface investigations, elevated concentrations of fuel-related constituents have been detected in soil and groundwater on-site.[31] Residual concentrations would be appropriately managed during all soil disturbance activities through implementation of the protocols described in the Soil Management Plan set forth in Mitigation Measure HAZ-MM-1. Additionally, the Project Site is located within a City-designated Methane Zone as defined by the Los Angeles Department of Building and Safety. A subsurface investigation conducted in 2018 identified elevated methane concentrations of up to 90.7 percent by volume in soils at the Project Site, as well as naturally occurring hydrogen sulfide. As such, the Project would implement Mitigation Measure HAZ-MM-2 to ensure potential impacts to the public related to subsurface gases and associated impacts to soil and groundwater are less than significant. Moreover, chlorinated volatile organic compounds (VOCs) such as tetrachloroethene (PCE) and trichloroethene (TCE) were detected in groundwater below their respective MCLs at isolated locations, with the exception of PCE at one boring, which was detected slightly above the MCL. As previously discussed, during construction-phase dewatering, any discharge of groundwater would comply with the applicable NPDES permit or industrial user sewer discharge permit requirements. Pursuant to such regulatory requirements, the extracted groundwater would be chemically analyzed to determine whether the groundwater is contaminated and the appropriate treatment and/or disposal methods. As

[31] These investigations have included a Limited Phase II Investigation in October 2018 and Supplemental Phase II Investigations in November 2018, August 2019, and May 2020, all of which were performed by Geosyntec.

concluded in Section IV.F, Hazards and Hazardous Materials, with compliance with applicable regulations and requirements, Project construction activities would not create or exacerbate a significant hazard to the public or the environment involving the handling and disposal of extracted groundwater.

Furthermore, hazardous materials, such as fuels, oils, paints, solvents, and concrete additives, as well as resulting hazardous wastes, could be used/handled during on-site grading and building construction and would require proper management and, in some cases, disposal. The management of such hazardous materials and wastes could increase the potential to release contaminants into the groundwater. Compliance with all applicable federal, state, and local requirements concerning the handling, storage, and disposal of hazardous materials and waste would reduce the potential for Project construction activities to release contaminants into groundwater. 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, with regulatory compliance and implementation of mitigation to reduce impacts related to hazardous materials (see Section IV.F, Hazards and Hazardous Materials), 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

Operational activities that could affect groundwater quality include spills of hazardous materials. In accordance with City requirements, source control measures, including good housekeeping, removal of trash and maintenance of driveways and parking areas, and proper use and storage of pesticides, would reduce water quality impacts and prevent pollutants from entering the groundwater by percolation within landscaped areas or other permeable surfaces. As discussed in Section IV.F, Hazards and Hazardous Materials, of this Draft EIR, any potentially hazardous materials associated with Project operations, such as the use of small quantities of cleaning solvents, painting supplies and adhesives during set construction, pesticides for landscaping, as well as fuel storage associated with production vehicles, maintenance, and emergency equipment, would be acquired, handled, used, contained, stored, and disposed of in accordance with manufacturers' instructions and all applicable regulatory requirements such that no hazardous materials would contaminate or otherwise affect groundwater. Such protocols may include, but would not be limited to, "spot cleaning" leaks and drips routinely, labeling drains within the Project Site boundary, posting signs to remind employees not to top off the fuel tank when filling, and reporting leaking vehicles to fleet maintenance.

Other types of activities which could affect groundwater quality include leaking USTs. As discussed in Section IV.F, Hazards and Hazardous Materials, of this Draft EIR, there are currently no USTs within the Project Site, and no new USTs are proposed as part of the Project. In addition, the Project would comply with all applicable regulations and would not affect or expand any areas of contamination, increase the level of contamination, or cause regulatory water quality standards at an existing production well to be violated, as defined in the California Code of Regulations, 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

Refer to Section IV.F, Hazards and Hazardous Materials, of this Draft EIR for Mitigation Measures HAZ-MM-1 and HAZ-MM-2, which would address potential water quality impacts associated with construction of the Project. Project-level operational impacts to water quality would be less than significant.

(3) Level of Significance After Mitigation

Project-level impacts related to water quality would be less than significant with implementation of Mitigation Measures HAZ-MM-1 and HAZ-MM-2 included in Section IV.F, Hazards and Hazardous Materials, of this Draft EIR.

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 previously noted, excavation for below-grade parking would extend to a maximum depth of 45 feet below Project Grade, and the historic high groundwater level on the Project Site is approximately eight feet below the existing Project Site grade. Therefore, dewatering activities are anticipated during construction. However, due to the limited and temporary nature of dewatering operations, and with compliance with all applicable regulatory requirements, impacts to regional groundwater levels would be less than significant. Furthermore, no water supply wells, spreading grounds, or injection wells are located at the Project Site or within a one-mile radius of the Project Site that could be

impacted by Project construction. **Thus, Project construction activities 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

As discussed above, the Project Site is currently comprised of approximately 90 percent impervious surfaces, and, as such, limited groundwater recharge occurs. Project buildout would result in up to approximately 90 percent impervious surfaces throughout the Project Site. Furthermore, consistent with LID requirements to reduce the quantity and improve the quality of runoff that leaves the Project Site, the Project would include the installation of stormwater capture and use or biofiltration/bioretention BMPs as established by the LID Manual. In addition, the stormwater which bypasses the BMP systems would discharge to an approved discharge point in the public right-of-way and would not result in infiltration of a large amount of rainfall that would affect groundwater hydrology, including the rate or 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.**

(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 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?

(1) Impact Analysis

(a) Construction

There are no streams or rivers within or immediately surrounding the Project Site, although two former drainage courses historically traversed the western and southern portions of the Project Site and have since been backfilled, as discussed in Section IV.D, Geology and Soils, of this Draft EIR. Construction activities for the Project have the potential to temporarily alter existing drainage patterns on-site by exposing the underlying soils, modifying flow direction, and making the Project Site temporarily more permeable. Exposed and stockpiled soils 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 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 are designed to contain stormwater or construction watering on the Project Site such that runoff does not impact off-site drainage facilities or receiving waters. In addition, Project construction activities would occur in accordance with City grading permit regulations (LAMC Chapter IX, Division 70), such as the preparation of an erosion control plan, to reduce the effects of 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. As such, construction impacts related to erosion and flooding on- or off-site would be less than significant.**

(b) Operation

As illustrated in Figure IV.G-1 on page IV.G-21, the existing drainage areas and overall drainage patterns would remain unchanged as a result of Project implementation. As discussed above, similar to existing conditions, the Project Site would continue to be comprised of up to approximately 90 percent impervious surfaces following Project buildout. As such, there would be a limited potential for erosion or siltation to occur from exposed soils or large expanses of pervious areas. In addition, as determined in the Hydrology Report and as summarized in Table IV.G-1 on page IV.G-36, the overall surface water flow rate would not change with implementation of the Project. Specifically, existing

Table IV.G-1
Stormwater Runoff Summary

Drainage Area[a]	Area (acres)		Q_{50} (cfs)	
	Existing	Proposed	Existing	Proposed
Drainage Area A1	14.92	24.99	31.95	53.47
Drainage Area A2	10.07		21.57	
Site Total	**24.99**	**24.99**	**53.47**	**53.47**

cfs = volumetric flow rate measured in cubic feet per second

[a] *Refer to Figure IV.G-1 on page IV.G-21 for an illustration of the Project Site's drainage areas.*

Source: KPFF Consulting Engineers, 2021.

runoff flows during a 50-year storm event are 53.47 cfs.[32] As shown in Table IV.G-1, runoff flows during Project operation would remain the same at 53.47 cfs during a 50-year storm event. Accordingly, there would be no increase in runoff volumes into the existing storm drain system. Furthermore, the Project's stormwater infrastructure would be designed to convey the 50-year storm to the designated discharge location. Inlets within the Project Site would be sized to eliminate the potential for ponding. Accordingly, drainage within the Project Site during operations would be similar to current conditions. **Therefore, 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. Operational impacts related to erosion and flooding on- or off-site would be less than significant.**

(2) Mitigation Measures

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

[32] 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.

(3) Level of Significance After Mitigation

Project-level impacts related to erosion and flooding on- and off-site 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:

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

Under existing conditions, stormwater sheet flows from the Project Site without infiltration or capturing. In accordance with LID requirements, the Project BMPs would control stormwater runoff, with no increase in runoff resulting from the Project Site, as shown in Table IV.G-1 on page IV.G-36. Specifically, the existing flow rate of 53.47 cfs would remain with implementation of the Project. Therefore, stormwater flows from the Project Site would not increase due to the Project. In terms of polluted runoff, the Project's uses would be typical of studio operations, similar to existing conditions, and would not introduce new or substantial sources of polluted water. As discussed above under Threshold (a), anticipated and potential pollutants generated by the Project would include sediment, nutrients, pesticides, metals, pathogens, oil, and grease. The implementation of BMPs required by the City's LID Ordinance would target these pollutants and prevent pollution of stormwater runoff. **As such, the Project would not create or contribute additional runoff water that would exceed the capacity of the existing stormwater system or provide substantial sources of polluted runoff. Therefore, potential impacts to the capacity of existing stormwater drainage systems would be less than significant.**

(2) Mitigation Measures

Project-level impacts related to 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 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?

(1) Impact Analysis

As discussed above, the Project Site is not located within a 100-year flood plain as mapped by FEMA. The northwestern portion of the Project Site is within an area of minimal flood hazard while the remainder is located within Zone X, which is a flood hazard zone with a 0.2 percent annual chance of flooding. While minor changes in the direction of surface water flow could result from new finished grades on-site, overall drainage patterns would be maintained as shown in Figure IV.G-1 on page IV.G-21, and the Project Site would continue to sheet flow towards the southern boundary. **As such, the Project would not alter the existing drainage pattern of the Project Site in a manner that would impede or redirect flood flows, and no impacts would occur.**

(2) Mitigation Measures

No Project-level impacts related to flood flows would occur. Therefore, no mitigation measures are required.

(3) Level of Significance After Mitigation

No Project-level impacts related to flood flows would occur. Therefore, no mitigation measures are required or included.

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

(1) Impact Analysis

As previously discussed, the Project Site is not located within a 100-year flood plain as mapped by FEMA. The northwestern portion of the Project Site is within an area of minimal flood hazard while the remainder is located within Zone X, which is a flood hazard

zone with a 0.2 percent annual chance of flooding. Furthermore, the Project Site is not located adjacent to or in proximity to the Pacific Ocean, which lies approximately 10 miles to the southwest, and the Safety Element of the City of Los Angeles General Plan (General Plan) does not map the Project Site within an area potentially affected by a tsunami.[33]

Additionally, earthquake-induced flooding can result from the failure of dams or other water-retaining structures resulting from earthquakes. The Safety Element of the General Plan maps the Project Site within the potential inundation area for the Hollywood Reservoir, which is held by the Mulholland Dam.[34] The Mulholland Dam is a Los Angeles Department of Water and Power (LADWP) dam located in the Hollywood Hills, approximately five miles northeast of the Project Site. The Mulholland Dam was built in 1924 and is designed to hold 4,036 af of water.[35] Dam safety regulations are the primary means of reducing damage or injury due to inundation occurring from dam failure. The Mulholland Dam, as well as others in California, are continually monitored by various governmental agencies (such as the State of California Division of Safety of Dams and the U.S. Army Corps of Engineers) to prevent dam failure. Specifically, the California Division of Safety of Dams regulates the siting, design, construction, and periodic review of all dams in the state. In addition, LADWP operates the dams in the Los Angeles area and mitigates the potential for overflow and seiche hazards through control of water levels and dam wall height. These measures include seismic retrofits and other related dam improvements completed under the requirements of the 1972 State Dam Safety Act. The City's Local Hazard Mitigation Plan, which was adopted in July 2011, provides a list of existing programs, proposed activities and specific projects that may assist the City in reducing risk and preventing loss of life and property damage from natural and human-caused hazards including dam failure. The Local Hazard Mitigation Plan evaluation of dam failure vulnerability classifies dam failure as a moderate risk. Given the oversight by the Division of Safety of Dams, including regular inspections, and the LADWP's emergency response program, the potential for substantial adverse impacts related to inundation at the Project Site as a result of dam failure would be less than significant. Additionally, as discussed above, the Project would include new structural BMPs throughout the Project Site which would reduce the amount of pollutants entering the stormwater system and groundwater. **As such, the Project would not risk release of pollutants due to project inundation in flood hazard, tsunami, or seiche zones. Therefore, impacts related to Threshold (d) would be less than significant.**

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[33] City of Los Angeles, Safety Element of the Los Angeles City General Plan, Exhibit G, November 26, 1996, p. 59.

[34] Ibid.

[35] City of Los Angeles, 2018 Local Hazard Mitigation Plan, January 2018, Dam Failure, pp. 7-1–7-12.

(2) Mitigation Measures

No Project-level impacts related to the release of pollutants in flood hazard, tsunami, or seiche zones would occur. Therefore, no mitigation measures are required.

(3) Level of Significance After Mitigation

No Project-level impacts related to the release of pollutants in flood hazard, tsunami, or seiche zones would occur. Therefore, no mitigation measures were required or included.

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, under Section 303(d) of the Clean Water Act, states are required to identify water bodies that do not meet their water quality standards. Biennially, the LARWQCB prepares a list of impaired waterbodies in the region, referred to as the 303(d) list. The 303(d) list outlines the impaired waterbody and the specific pollutant(s) for which it is impaired. All waterbodies on the 303(d) list are subject to the development of a TMDL. The Project Site is located within the Ballona Creek Watershed. Constituents of concern listed for the Ballona Creek Watershed include PCBs, DDT, cadmium, zinc, chlordane, indicator bacteria, PAHs, copper, toxicity, lead, silver, trash, cyanide, and viruses (enteric).

The County of Los Angeles, the City of Los Angeles, and all other cities in the regional watershed are responsible for the implementation of watershed improvement plans or Enhanced Watershed Management Programs to improve water quality and assist in meeting the TMDL thresholds. The objective of the EWMP Plan for the Ballona Creek is to determine the BMPs that will achieve required pollutant reductions while also providing multiple benefits to the community and leveraging sustainable green infrastructure practices. Compliance with the NPDES program would ensure that stormwater pollutants do not substantially degrade water quality. Further, the Project would be required to comply with the City's SUSMP requirements.

The Project Site is also located in the Coastal Plain of Los Angeles Groundwater Basin, Hollywood Subbasin. This subbasin is listed as very low priority by the California Department of Water Resources and thus is not subject to a GSP or management by a GSA per the SGMA.

Potential pollutants generated by the Project would be those typical of studio land uses and may include sediment, nutrients, pesticides, metals, pathogens, and oil and

grease. The implementation of BMPs required by the City's LID Ordinance would target these pollutants to minimize pollutant loads in stormwater runoff. Implementation of LID BMPs as part of the Project would result in improved surface water runoff quality as compared to existing conditions. As such, the Project would not introduce new pollutants or an increase in pollutants that would conflict with or obstruct any water quality control plans for the Ballona Creek Watershed.

As such, as determined in the Initial Study, with compliance with existing applicable 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. Impacts would be less than significant.

e. Project Impacts with Long-Term Buildout

While Project buildout is anticipated in 2026, the Project Applicant is seeking a Development Agreement with a term of 20 years, which could extend the full buildout year to approximately 2043. The Development Agreement would confer a vested right to develop the Project in accordance with the Specific Plan and a Mitigation Monitoring and Reporting Program (MMRP) throughout the term of the Development Agreement. The Specific Plan and MMRP 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 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 68 related development projects have been identified in the vicinity of the Project Site through 2026, the Project's anticipated buildout year.[36] These related projects comprise a variety of

[36] Construction could begin as soon as 2023 and end as soon as 2026. While Project buildout is anticipated in 2026, the Project Applicant is seeking a Development Agreement with a term of 20 years, which could extend the full buildout year to approximately 2043. A later buildout date would not affect the cumulative impact analysis related to hydrology and water quality.

uses, including apartments, condominiums, restaurants, office space, institutional uses, 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 urban land uses (as compared to heavy industrial, agricultural or other such uses which may be expected to produce more pollution), proposed by the related projects, anticipated and potential pollutants generated by the related projects could also include sediment, nutrients, pesticides, metals, pathogens, oil, and grease. As with the Project, related projects would 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 (or equivalent requirements in other jurisdictions, including the Cities of West Hollywood and Beverly Hills), to implement BMPs that target potential pollutants that could be carried in stormwater runoff. **Therefore, the Project and related projects would not result in significant cumulative impacts associated with surface water quality. As such, the Project's contribution would not be cumulatively considerable, and cumulative impacts on surface water quality would be less than significant.**

(b) Ground Water Quality

As noted above, the related projects comprise a variety of uses, including apartments, condominiums, restaurants, office space, institutional uses, and retail uses, as well as mixed-use developments incorporating some or all of these elements. As such, these related projects would be anticipated to involve the use, handling, storage, and disposal of potentially hazardous materials and wastes typical of such urban uses, which could be released into the groundwater. However, as with the Project, the related projects would be required to comply with all applicable federal, state, and local requirements concerning the handling, storage, and disposal of hazardous materials and waste, which would reduce the potential for the release of contaminants into groundwater. Other potential activities that may affect groundwater quality, including USTs and oil wells, are site-specific and would be addressed by each individual related project in compliance with regulatory requirements. As discussed above, with implementation of regulatory requirements mitigation to reduce impacts related to hazardous materials (see Section IV.F, Hazards and Hazardous Materials), potential groundwater quality impacts during construction of the Project would be reduced to a less-than-significant level. Like the Project, the related projects would be required to comply with applicable regulations during construction and would implement site-specific measures where needed. **Therefore, the Project and related projects would not result in significant cumulative impacts associated with groundwater quality. As such, the Project's contribution would not be cumulatively considerable, and cumulative impacts on 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 Ballona Creek Watershed. In accordance with City requirements, related projects and other future development 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 (or comparable agency in other jurisdictions) would review each future development project on a case-by-case basis to ensure sufficient local and regional storm water drainage infrastructure is available to accommodate stormwater runoff. **Therefore, the Project and related projects would not result in significant cumulative impacts associated with surface water hydrology. As such, the Project's contribution would not be cumulatively considerable, and cumulative impacts on 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 surrounding vicinity. In addition, interruptions to existing hydrology flows due to dewatering operations would have the potential to 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. If any related project requires permanent dewatering systems, such systems would be regulated by the LARWQCB. 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, the Project and related projects would not result in significant cumulative impacts associated with groundwater hydrology. As such, the Project's contribution would not be cumulatively considerable, and cumulative impacts on groundwater hydrology would be less than significant.**

(2) Mitigation Measures

Cumulative impacts related to hydrology and surface water quality would be less than significant, and no mitigation measures are required. Relative to groundwater quality, as discussed above, with implementation of Mitigation Measures HAZ-MM-1 and HAZ-MM-2 (refer to Section IV.F, Hazards and Hazardous Materials, of this Draft EIR) and compliance with applicable regulatory requirements, potential groundwater quality impacts associated with the Project would be less than significant. Such impacts are largely

site-specific and would not be cumulatively considerable. Thus, no additional mitigation is necessary.

(3) Level of Significance After Mitigation

Cumulative impacts related to hydrology and surface water quality were determined to be less than significant without mitigation. In addition, with implementation of applicable regulatory requirements and Mitigation Measures HAZ-MM-1 and HAZ-MM-2 (refer to Section IV.F, Hazards and Hazardous Materials, of this Draft EIR), cumulative impacts associated with groundwater quality would not be cumulatively considerable. Therefore, no additional mitigation measures are required or included.