IV. Environmental Impact Analysis

F. 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 primarily based on the *Morrison Hotel Project, Water Resources Technical Report* ("Water Resources Report")[1] prepared for the Project, and included in their entirety in **Appendix F** of this Draft EIR, respectively.

2. Environmental Setting

a) Regulatory Framework

There are several plans, policies, and programs regarding Hydrology and Water Quality at the federal, state, regional, and local levels. Described below, these include:

- Clean Water Act
- Federal Antidegradation Policy
- Safe Drinking Water Act
- National Flood Insurance Program
- Porter-Cologne Water Quality Act (California Water Code)
- California Antidegradation Policy
- California Toxics Rule
- Sustainable Groundwater Management Act of 2014
- Water Replenishment District of Southern California
- County of Los Angeles Hydrology Manual
- NPDES Permit Program
- Los Angeles River Watershed Master Plan
- Los Angeles Municipal Code Section 62.105, Construction "Class B" Permit
- Los Angeles Municipal Code Sections 12.40 through 12.43, Landscape Ordinance
- Los Angeles Municipal Code Section 64.70, Stormwater and Urban Runoff Pollution Control Ordinance
- Los Angeles Municipal Code Section 64.72, Stormwater Pollution Control Measures for Development Planning and Construction Activities
- Low Impact Development Ordinance
- Water Quality Compliance Master Plan for Urban Runoff

[1] *KPFF Consulting Engineers, Morrison Hotel Project, Water Resources Technical Report for APNs 5139-022-003, 5139-022-004, 5139-022-020, 5139-022-006, and 5139-022-02, 1220-1246 South Hope Street and 427-435 Pico Boulevard, Los Angeles, California, 90015, October 9, 2020.*

- 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 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.

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[2] *United States Environmental Protection Agency, Clean Water Act, November 2002, https://www.epa.gov/sites/production/files/2017-08/documents/federal-water-pollution-control-act-508full.pdf. Accessed September 2020.*

[3] *United States Environmental Protection Agency, Water Quality Standards Handbook - Chapter 4: Antidegradation, 2010. https://www.epa.gov/sites/production/files/2014-10/documents/handbook-chapter4.pdf. Accessed September 2020.*

(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 MCLs, and that the EPA has delegated the Cal Dept. of Public Health the responsible agency for administering California's drinking water program. MCLs are established under 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 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 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.

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[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, https://uscode.house.gov/view.xhtml?path=/prelim@title42/chapter6A/subchapter12&edition=prelim. Accessed September 2020.*

[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., https://www.fema.gov/sites/default/files/2020-07/national-flood-insurance-act-1968.pdf. Accessed September 2020.*

[6] *State Water Resources Control Board, Porter-Cologne Water Quality Control Act, January 2018, https://www.waterboards.ca.gov/laws_regulations/docs/portercologne.pdf. Accessed September 2020.*

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]

(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.

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7 *United States Environmental Protection Agency, Clean Water Act, December 2016, https://www.epa.gov/compliance/state-review-framework-compliance-and-enforcement-performance. Accessed September 2020.*

8 *California State Water Resources Control Board, State Board Resolution No. 68-16. October 1968, https://www.waterboards.ca.gov/board_decisions/adopted_orders/resolutions/1968/rs68_016.pdf. Accessed September 2020.*

9 *United States Environmental Protection Agency, Water Quality Standards, Establishment of Numeric Criteria for Priority Toxic Pollutants for the State of California. February 2001, https://www.epa.gov/wqs-tech/water-quality-standards-establishment-numeric-criteria-priority-toxic-pollutants-state. Accessed September 2020.*

(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.

(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

[10] *Board of Directors of the Water Replenishment District of Southern California, Resolution No. 16-1048, December 8, 2016, https://sgma.water.ca.gov/portal/alternative/print/12. Accessed September 2020.*

[11] *Los Angeles County Department of Public Works, Hydrology Manual, January 2006, http://dpw.lacounty.gov/wrd/Publication/engineering/2006_Hydrology_Manual/2006%20Hydrology%20Manual-Divided.pdf. Accessed September 2020.*

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.

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:

- 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

[12] *Construction Stormwater Program, State Water Resources Control Board, October 30, 2019. https://www.waterboards.ca.gov/water_issues/programs/stormwater/construction.html. Accessed September 2020.*

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). 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

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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, September 13, 2018, http://www.waterboards.ca.gov/losangeles/board_decisions/adopted_orders/permits/general/npdes/r4-2013-0095/Dewatering%20Order.pdf. Accessed September 2020.*

[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, June 6, 2013, http://www.waterboards.ca.gov/losangeles/board_decisions/adopted_orders/permits/general/npdes/r4-2013-0095/Dewatering%20Order.pdf. Accessed September 2020.*

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.

This Enhanced Watershed Management Program for the Upper Los Angeles River (ULAR EWMP) describes a customized compliance pathway that participating agencies will follow to address the pollutant reduction requirements of the Los Angeles County MS4 Permit.[15] By electing the optional compliance pathway in the MS4 Permit, the Upper Los Angeles River Watershed Management Group (EWMP Group) has leveraged this EWMP to facilitate a robust, comprehensive approach to stormwater planning for the Upper Los Angeles River watershed. The objective of the EWMP Plan is to determine the network of control measures (BMPs) that will achieve required pollutant reductions while also providing multiple benefits to the community and leveraging sustainable green infrastructure practices. The Permit requires the identification of Watershed Control Measures, which are strategies and BMPs that will be implemented through the EWMP, individually or collectively, at watershed-scale to address the Water Quality Priorities. The EWMP Implementation Strategy is used as a recipe for compliance for each jurisdiction to address Water Quality Priorities and comply with the provisions of the MS4 Permit. The EWMP Implementation Strategy includes individual recipes for each of the 18 jurisdictions and each watershed/assessment area – Los Angeles River above Sepulveda Basin, Los Angeles River below Sepulveda Basin, Compton Creek, Rio Hondo, Verdugo Wash, Arroyo Seco, Burbank Western Channel, Tujunga Wash, Bull Creek, Aliso Wash, Bell Creek, McCoy-Dry Canyon, and Browns Canyon Wash. Implementation of the EWMP Implementation Strategy will provide a BMP-based compliance pathway for each jurisdiction under the MS4 Permit. The Permit specifies that an adaptive management process will be revisited every two years to evaluate the EWMP

[15] *Upper Los Angeles River Watershed Management Group, Enhanced Watershed Management Program, January 2016, https://www.waterboards.ca.gov/losangeles/water_issues/programs/stormwater/municipal/watershed_management/los_angeles/upper_losangeles/20160127/UpperLARiver_mainbody_revEWMP_Jan2016.pdf. Accessed September 2020*

and update the program. The EWMP strategy will evolve based on monitoring results by identifying updates to the EWMP Implementation Plan to increase its effectiveness.

The Los Angeles County MS4 Permit contains provisions for implementation and enforcement of the Stormwater Quality Management Program. The objective of the Stormwater Quality Management Program is to reduce pollutants in urban stormwater discharges to the "maximum extent practicable," to attain water quality objectives and protect the beneficial uses of receiving waters in Los Angeles County. Special provisions are provided in the Los Angeles County MS4 Permit to facilitate implementation of the Stormwater Quality Management Program. In addition, the Los Angeles County MS4 Permit requires that permittees implement a LID Plan, as discussed above, that designates BMPs that must be used in specified categories of development projects to infiltrate water, filter, or treat stormwater runoff; control peak flow discharge; and reduce the post-project discharge of pollutants into stormwater conveyance systems. In response to the Los Angeles County MS4 Permit requirements, the City adopted Ordinance No. 173,494 (Stormwater Ordinance), as authorized by 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)[16], which provides guidance to developers to ensure the post-construction operation of newly developed and redeveloped facilities comply with the Developing Planning Program regulations of the City's Stormwater Program. The LID Handbook assists developers with the selection, design, and incorporation of stormwater source control and treatment control BMPs into project design plans, and provides an overview of the City's plan review and permitting process.

The City 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) Los Angeles River Watershed Master Plan

The Los Angeles River Master Plan recognizes the river as a resource of regional importance and that those resources must be protected and enhanced. The Los Angeles River Master Plan was adopted in 1996, and is intended to maintain the river as a resource that provides flood protection and opportunities for recreational and environmental enhancement, improves the aesthetics of the region, enriches the quality of life for residents, and helps sustain the economy of the region.[17]

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[16] *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, https://www.lacitysan.org/cs/groups/sg_sw/documents/document/y250/mde3/~edisp/cnt017152.pdf. Accessed September 2020.*

[17] *City of Los Angeles, The Los Angeles River Revitalization Master Plan, April 2007, https://tayloryardriverprojects.lacity.org/la-river/la-river-revitalization-master-plan, Accessed September 2020.*

Environmental goals of the Watershed Master Plan are to preserve, enhance, and restore environmental resources in and along the river, including improving water quality and cleanliness of the river. Soil contamination on riverfront lands that have supported railroads and other industries is cited as an issue of concern.

(4) Local

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

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

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

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

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

LAMC Section 64.70, the Stormwater and Urban Runoff Pollution Control Ordinance, was added by Ordinance No. 172,176 in 1998 and prohibits the discharge of unauthorized pollutants in the City. The Watershed Protection Program (Stormwater Program) for the City is managed by the Bureau of Sanitation along with all City Flood Protection and Pollution Abatement (Water Quality) Programs, including but not limited to, regulatory compliance, implementation, operations, reporting and funding. Section 64.70 sets forth uniform requirements and prohibitions for discharges and places of discharge into the storm drain system and receiving waters necessary

to adequately enforce and administer all federal and state laws, legal standards, orders and/or special orders that provide for the protection, enhancement and restoration of water quality. Through a program employing watershed-based approaches, the regulation implements the following objectives:

1. To comply with all Federal and State laws, lawful standards and orders applicable to stormwater and urban runoff pollution control;
2. To prohibit any discharge which may interfere with the operation of, or cause any damage to the storm drain system, or impair the beneficial use of the receiving waters;
3. To prohibit illicit discharges to the storm drain system;
4. To reduce stormwater runoff pollution;
5. To reduce non-stormwater discharge to the storm drain system to the maximum extent practicable; and
6. To develop and implement effective educational outreach programs designed to educate the public on issues of stormwater and urban runoff pollution.

The Ordinance applies to all dischargers and places of discharge that discharge stormwater or non-stormwater into any storm drain system or receiving waters. While this practice is prohibited under the County's Municipal NPDES Permit, adoption of the Ordinance allows enforcement by the Department of Public Works as well as the levy of fines for violations. General Discharge Prohibitions require that no person shall discharge, cause, permit, or contribute to the discharge any hazardous materials and substances (liquids, solids, or gases) into to the storm drain system or receiving waters that constitute a threat and/or impediment to life and the storm drain system, singly or by interaction with other materials. A specific list of prohibited substances can be found under LAMC Section 64.70.

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

[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, https://www.lacitysan.org/cs/groups/sg_sw/documents/document/y250/mde3/~edisp/cnt017152.pdf. Accessed September 2020.*

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.

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, site 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)[21] was developed by the Department of Public Works, Bureau of Sanitation, Watershed Protection Division, and was adopted in April 2009.

The Water Quality Compliance Master Plan addresses planning, budgeting, and funding for achieving clean stormwater and urban runoff for the next 20 years and presents an overview of the status of urban runoff management within the City. The Water Quality Compliance Master Plan identifies the City's four watersheds; summarizes water quality conditions in the City's receiving waters as well as known sources of pollutants; summarizes regulatory requirements for

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[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, https://www.lacitysan.org/cs/groups/sg_sw/documents/document/y250/mde3/~edisp/cnt017152.pdf. Accessed September 2020.*

[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, https://www.lacitysan.org/cs/groups/sg_sw/documents/document/y250/mde3/~edisp/cnt017152.pdf. Accessed September 2020.*

[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, https://www.lacitysan.org/cs/groups/sg_sw/documents/document/y250/mde3/~edisp/cnt017152.pdf. Accessed September 2020.*

water quality; describes BMPs required by the City for stormwater quality management; and discusses related plans for water quality that are implemented within the Los Angeles region, particularly TMDL Implementation Plans and Watershed Management Plans in Los Angeles.

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

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

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[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, https://www.lacitysan.org/cs/groups/sg_sw/documents/document/y250/mde3/~edisp/cnt017152.pdf. Accessed September 2020.*

[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, https://www.lacitysan.org/cs/groups/sg_sw/documents/document/y250/mde3/~edisp/cnt017152.pdf. Accessed September 2020.*

b) Existing Conditions

(1) Groundwater Hydrology

(a) Regional

Groundwater use for domestic water supply is a major beneficial use of groundwater basins in Los Angeles County. The City overlies the Los Angeles Coastal Plain Groundwater Basin (Basin). The Basin is comprised of the Hollywood, Santa Monica, Central, and West Coast Groundwater Subbasins. Groundwater flow in the 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, as well as injection wells designed to pump freshwater along specific seawater barriers to prevent the intrusion of salt water.

(b) Local

The Project Site overlies the north portion of the Central Subbasin.[24] The Central 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, formed by an anticline that brings impermeable rocks close to the surface.[25]

Groundwater in the Subbasin is replenished by percolation of precipitation and stream flow from the Santa Monica Mountains to the north. Over time, urbanization has decreased the amount of pervious surfaces limiting natural recharge through direct percolation. The natural safe yield of the Subbasin is estimated to be approximately 3,000 acre-feet per year (AFY). The Central Subbasin is not designated as critically overdrafted.[26]

(c) Project Site

The earth materials encountered on the Project Site are comprised of artificial fill and alluvial deposits. The artificial fill, consisting of grained silty sand, extends from immediately below the surface asphalt to depths of 2 to 3 feet below the ground surface.[27] The alluvial deposits encountered throughout the Site primarily consists of medium brown to yellowish brown to gray,

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[24] *California Department of Water Resources, Groundwater Information Center Interactive Map.*

[25] *California Department of Water Resources, California's Groundwater Bulletin 118, Coastal Plain of Los Angeles Groundwater Basin, Central Subbasin.*

[26] *State of California, California Natural Resources Agency, Department of Water Resources, Sustainable Groundwater Management Program, Sustainable Groundwater Management Act, 2019 Basin Prioritization, Process and Results Report, Appendix A, Table A-1: Statewide SGMA 2019 Basin Prioritization Results, Phase 1 Final, April 2019, page A-3.*

[27] *GeoConcepts, Inc., Preliminary Geotechnical Engineering Investigation – Proposed 13-story Hotel Expansion Over Partial One Level Subgrade Parking and 22-Story Residential Building Over 3-4 Levels Subgrade Parking for APNs 5139-022-003, 5139-022-004, 5139-022-020, 5139-022-006, and 5139-022-02, 1220-1246 South Hope Street and 427-435 Pico Boulevard, Los Angeles, California, 90015, March 31, 2017, Appendix I Boring Logs. See appendix to* ***Appendix A*** *of this Draft EIR.*

dense to very dense, silty sand to gravelly sands.[28] The Project Site is currently improved with existing buildings and paved parking lots, and is 100 percent impervious. Therefore, the Project Site does not contribute to groundwater recharge.

Based on a review of the Seismic Hazard Zone Report for the Los Angeles Quadrangle (SHZR 029), the historically highest groundwater level in the area is roughly 100 feet beneath the ground surface.[29] As described in the Preliminary Geotechnical Engineering Investigation Report by GeoConcepts, Inc., seeps/perched groundwater[30] was encountered during exploration at depths of 157.5 and 187.5 feet.[31]

3. Project Impacts

a) Thresholds of Significance

In accordance with the State *CEQA Guidelines* Appendix G (Appendix G), the Project would have a significant impact in regards to groundwater hydrology if it would:

Threshold a) ***Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality; or***

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

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; or

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[28] *GeoConcepts, Inc., Preliminary Geotechnical Engineering Investigation – Proposed 13-story Hotel Expansion Over Partial One Level Subgrade Parking and 22-Story Residential Building Over 3-4 Levels Subgrade Parking for APNs 5139-022-003, 5139-022-004, 5139-022-020, 5139-022-006, and 5139-022-02, 1220-1246 South Hope Street and 427-435 Pico Boulevard, Los Angeles, California, 90015, March 31, 2017, page 3. See appendix to* ***Appendix A*** *of this Draft EIR.*

[29] *KPFF Consulting Engineers, Morrison Hotel Project, Water Resources Technical Report for APNs 5139-022-003, 5139-022-004, 5139-022-020, 5139-022-006, and 5139-022-02, 1220-1246 South Hope Street and 427-435 Pico Boulevard, Los Angeles, California, 90015, October 9, 2020, p. 17. See* ***Appendix F*** *of this Draft EIR.*

[30] *"Perched groundwater" refers to an aquifer that occurs above the regional water table. This occurs when there is an impermeable layer of rock or sediment or relatively impermeable layer above the main water table/aquifer but below the land surface. Perched groundwater is typically not used for drinking water supply.*

[31] *GeoConcepts, Inc., Preliminary Geotechnical Engineering Investigation – Proposed 13-story Hotel Expansion Over Partial One Level Subgrade Parking and 22-Story Residential Building Over 3-4 Levels Subgrade Parking for APNs 5139-022-003, 5139-022-004, 5139-022-020, 5139-022-006, and 5139-022-02, 1220-1246 South Hope Street and 427-435 Pico Boulevard, Los Angeles, California, 90015, March 31, 2017. See appendix to* ***Appendix A*** *of this Draft EIR.*

(ii) result in flooding on- or off site; or

(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; or

Threshold d) In flood hazards, tsunami, or seiche zones, risk release of pollutants due to project inundation; or

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

The Thresholds Guide identifies the following criteria to evaluate hydrology and water quality impacts:

Surface Water Hydrology

- *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; or*
- *Substantially reduce or increase the amount of surface water in a water body; or*
- *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.*

Surface Water Quality

- *Discharges associated with the project would create pollution, contamination or nuisance as defined in Section 13050 of the California Water Code (CWC) 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.*

Groundwater Level

- *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.*

Groundwater Quality

- *Affect the rate or change the 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 California Code of Regulations (CCR), Title 22, Division 4, and Chapter 15 and in the Safe Drinking Water Act.*

The potential for the Project to result in impacts to hydrology and water quality is based on the Appendix G thresholds and criteria identified in the Thresholds Guide that provide supplemental analysis to the Appendix G thresholds, as applicable. The City's threshold criteria above are considerations that were -made as part of the analysis of the Appendix G thresholds for hydrology and water quality.

b) Methodology

The analysis in this section addresses potential impacts to groundwater hydrology (supplies and recharge) and consistency with sustainable groundwater management plans. The analysis is partly based on the Water Resources Report, prepared by KPFF Consulting Engineers. The report is provided in **Appendix F** of this Draft EIR.

The evaluation of groundwater hydrology impacts is based on studies describing historic groundwater levels and conditions in the area and on the Project Site. The evaluation focuses on whether construction activities or the Project's built subterranean structures would encounter groundwater resource, would include direct withdrawal or injection of groundwater, or would alter the Project Site's permeability in such a manner that could reduce or increase recharge of the water table over existing conditions. It should be noted that the City may in its discretion permit an 86 percent parking reduction in connection with the Zone Variance to reduce parking at the Project Site from 233 vehicular parking spaces to 52 vehicular parking spaces, which would require one subterranean parking level instead of three levels as proposed by the Project.[32] The analysis in this section assumes the construction of the proposed three-level subterranean parking structure, which would therefore result in a more conservative analysis if the 86 percent parking reduction is permitted by the City for the Project because less grading would be required and the depth of the subterranean parking lot would be reduced from approximately 36 feet to approximately 12 feet.

[32] *The parking reduction would support the anticipated parking requirements in DTLA 2040, the City's joint update of the Central City Community Plan and Central City North Community Plan. In the current draft of DTLA 2040, the Project Site is proposed to have no parking minimums as part of the Transit Core.*

The evaluation of Project consistency with sustainable groundwater management plans is based on a summary of the preceding analyses of Project impacts on groundwater resources. The summary identifies the applicable plans, the regulatory mechanisms for meeting the standards in those plans and the Project characteristics that conform to those regulatory standards.

c) Project Design Features

Construction and operation of the Project would be implemented in accordance with applicable regulatory requirements. No specific Project Design Features are proposed with regard to hydrology and water quality.

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 ground water quality?

(1) Impact Analysis

As discussed in **Section V, Other CEQA Considerations**, and in the Initial Study (**Appendix A**), the Project would not violate any water quality standards or waste discharge requirements or substantially degrade surface or ground water quality. **Therefore, the Project would have a less than significant impact with respect to Threshold a).**

(2) Mitigation Measures

Under the Project, impacts related to violation of water quality standards or waste discharge requirements would be less than significant; no mitigation would be required.

(3) Level of Significance After Mitigation

Under the Project, impacts related to violation of water quality standards or waste discharge requirements would be less than significant without mitigation.

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

Construction activities for the Project would include excavating down for subterranean parking, building up the structure, and hardscape and landscape around the structure. Considering the historic high groundwater level at a depth of roughly 100 feet, the depth to seeps/perched

groundwater encountered in exploratory borings at 157.5 and 187.5,[33] and the depth of the proposed excavation of 36 feet, groundwater is unlikely to be encountered during construction.[34] If the City permits the 86 percent parking reduction option, excavation would be reduced to approximately 12 feet to construct one subterranean parking level instead of three levels, which would further reduce the probability of encountering groundwater during construction. However, it is not uncommon for groundwater levels to vary seasonally or for groundwater seepage conditions to develop where none previously existed, especially in impermeable fine-grained soils which are heavily irrigated or after seasonal rainfall. In addition, recent requirements for stormwater infiltration could result in shallower seepage conditions in the immediate site vicinity. If groundwater were encountered during construction and temporary dewatering systems were to be required, local groundwater hydrology in the immediate vicinity of the Site could be minimally affected. If groundwater is encountered during construction, temporary pumps and filtration would be utilized in compliance with the NPDES permit. Any such temporary system would comply with all relevant NPDES requirements related to construction and discharges from dewatering operations. However, the purpose of dewatering operations is for the protection of both existing and proposed building structures and given the historic high groundwater level, any potential groundwater pumping would likely be limited to a local perched groundwater level, and no impacts to regional groundwater flow and level would occur. Therefore, construction of the Project would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge. **Impacts to sustainable groundwater management during construction would be less than significant.**

(b) Operation

As shown in **Figure II-29, East/West Sections**, in **Section II, Project Description**, of this Draft EIR, the proposed structures would sit at a maximum depth of approximately 31 feet below grade. Based on the historic high groundwater level in the vicinity of roughly 100 feet below grade and the level of seeps/perched groundwater encountered in exploratory borings of 157.5 and 187.5 feet below grade, the Project would not require permanent dewatering.[35] Furthermore, the Project would not include the installation or operation of water wells or any groundwater extraction systems. As discussed in greater detail in **Section IV.M, Utilities and Service Systems,** of this Draft EIR, potable water would be supplied to the Project by the Los Angeles Department of Water

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[33] *GeoConcepts, Inc., Preliminary Geotechnical Engineering Investigation – Proposed 13-story Hotel Expansion Over Partial One Level Subgrade Parking and 22-Story Residential Building Over 3-4 Levels Subgrade Parking for APNs 5139-022-003, 5139-022-004, 5139-022-020, 5139-022-006, and 5139-022-02, 1220-1246 South Hope Street and 427-435 Pico Boulevard, Los Angeles, California, 90015, March 31, 2017. See appendix to* ***Appendix A*** *of this Draft EIR.*

[34] *KPFF Consulting Engineers, Morrison Hotel Project, Water Resources Technical Report for APNs 5139-022-003, 5139-022-004, 5139-022-020, 5139-022-006, and 5139-022-02, 1220-1246 South Hope Street and 427-435 Pico Boulevard, Los Angeles, California, 90015, October 9, 2020, p. 17. See* ***Appendix F*** *of this Draft EIR.*

[35] *GeoConcepts, Inc., Preliminary Geotechnical Engineering Investigation – Proposed 13-story Hotel Expansion Over Partial One Level Subgrade Parking and 22-Story Residential Building Over 3-4 Levels Subgrade Parking for APNs 5139-022-003, 5139-022-004, 5139-022-020, 5139-022-006, and 5139-022-02, 1220-1246 South Hope Street and 427-435 Pico Boulevard, Los Angeles, California, 90015, March 31, 2017, page 2. See appendix to* ***Appendix A*** *of this Draft EIR.*

and Power (LADWP) from existing entitlements and direct withdrawals of groundwater to supply the Project would not be required.

Regarding groundwater recharge, the Project Site is currently 100 percent impervious with minimal groundwater recharge potential. Although the Project would include infiltration basins and trenches as part of the Project design, the groundwater recharge potential would remain minimal as operational stormwater control BMP systems would be installed to capture and treat stormwater prior to discharge into the existing stormdrain network. Any stormwater that bypasses the proposed BMP systems would discharge to an approved discharge point in the public right-of-way and not result in infiltration of a large amount of rainfall that would affect groundwater hydrology, including the direction of groundwater flow. Therefore, operation of the Project would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge. **Impacts to sustainable groundwater management during operation would be less than significant.**

(2) Mitigation Measures

Under the Project, impacts to sustainable groundwater management would be less than significant; no mitigation would be required.

(3) Level of Significance After Mitigation

Under the Project, impacts to sustainable groundwater management would be less than significant without mitigation.

Threshold c(i) ***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 result in substantial erosion or siltation on- or off-site?***

(1) Impact Analysis

As discussed in **Section V, Other CEQA Considerations**, and in the Initial Study (**Appendix A**), the Project would not 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 result in substantial erosion or siltation on- or off-site. **Therefore, the Project would have a less than significant impact with respect to Threshold c(i).**

(2) Mitigation Measures

Under the Project, impacts from erosion or siltation resulting from alteration of the existing drainage pattern would be less than significant; no mitigation would be required.

(3) Level of Significance After Mitigation

Under the Project, impacts from erosion or siltation resulting from alteration of the existing drainage pattern would be less than significant without mitigation.

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

(1) Impact Analysis

As discussed in **Section V, Other CEQA Considerations**, and in the Initial Study (**Appendix A**), the Project would not 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 substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site. **Therefore, the Project would have a less than significant impact with respect to Threshold c(ii).**

(2) Mitigation Measures

Under the Project, impacts from flooding resulting from alteration of the existing drainage pattern would be less than significant; no mitigation would be required.

(3) Level of Significance After Mitigation

Under the Project, impacts from flooding resulting from alteration of the existing drainage pattern would be less than significant without mitigation.

Threshold c(iii) ***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 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

As discussed in **Section V, Other CEQA Considerations**, and in the Initial Study (**Appendix A**), the Project would not 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 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. **Therefore, the Project would have a less than significant impact with respect to Threshold c(iii).**

(2) Mitigation Measures

Under the Project, impacts from runoff resulting from alteration of the existing drainage pattern would be less than significant; no mitigation would be required.

(3) Level of Significance After Mitigation

Under the Project, impacts from runoff resulting from alteration of the existing drainage pattern would be less than significant without mitigation.

Threshold c(iv) 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 impede or redirect flood flows?

(1) Impact Analysis

As discussed in **Section V, Other CEQA Considerations**, and in the Initial Study (**Appendix A**), the Project would not 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 impede or redirect flood flows. **Therefore, the Project would have no impact with respect to Threshold c(iv).**

(2) Mitigation Measures

Under the Project, no impacts related to impeding or redirecting flood flows resulting from alteration of the existing drainage pattern would occur; no mitigation would be required.

(3) Level of Significance After Mitigation

Under the Project, no impacts related to impeding or redirecting resulting from alteration of the existing drainage pattern would occur.

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

(1) Impact Analysis

As discussed in **Section V, Other CEQA Considerations**, and in the Initial Study (**Appendix A**), the Project would not risk release of pollutants due to project inundation. **Therefore, the Project would have no impact with respect to Threshold d).**

(2) Mitigation Measures

Under the Project, no impacts related to the release of pollutants during inundation would occur; no mitigation would be required.

(3) Level of Significance After Mitigation

Under the Project, no impacts related to the release of pollutants during inundation would occur.

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

(1) Impact Analysis

(a) Water Quality Control Plans

As discussed in **Section V, Other CEQA Considerations,** and in the Initial Study (**Appendix A**), the Project would be required to prepare and implement a SUSMP and Storm Water Pollution Prevention Program (SWPPP),[36] which specifies BMPs, that will prevent all construction pollutants from contacting storm water with the intent of keeping all products of erosion from moving off site into receiving waters, in accordance with NPDES requirements and would not include any point-source discharge. Therefore, the Project would have a less-than-significant impact with respect water quality control plans under **Threshold e)**. No significant impacts from conflicts with water quality control plans would occur and no further analysis is required.

(b) Sustainable Groundwater Management Plans

The Project Site overlies the Coastal Plain of Los Angeles – Central groundwater basin which is not designated as critically overdrafted[37] and as such, no GSA has been formed to develop a GSP for its management as of yet. However, as discussed in greater detail in **Section IV.M.1, Utilities and Service Systems – Water,** of this Draft EIR, the Project would receive its water from LADWP. Both LADWP and the California Department of Water Resources have programs in place to monitor wells to prevent overdrafting.[38] The LADWP's groundwater pumping strategy is based on a "safe yield" strategy, in which the amount of water removed over a period of time equals the amount of water entering the groundwater basin through native and imported groundwater recharge. Further, protection from potential overdraft conditions is provided by the court-appointed Los Angeles River Area Watermaster for the San Fernando and Sylmar Basins, and a court-appointed Watermaster Panel for the Central Basin. As detailed in **Section IV.M.1, Utilities and Service Systems – Water**, of this Draft EIR, LADWP addresses water supply needs through preparation of an Urban Water Management Plan (UWMP), which projects future water use demands and identifies water supplies to meet these demands and is updated every five years. The UWMP's water demand projection for 2040 is approximately 710,800 af/y for average

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[36] *For all construction activities disturbing one acre of land or more, California mandates the development and implementation of Storm Water 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.*

[37] *State of California, California Natural Resources Agency, Department of Water Resources, Sustainable Groundwater Management Program, Sustainable Groundwater Management Act, 2019 Basin Prioritization, Process and Results Report, Appendix A, Table A-1: Statewide SGMA 2019 Basin Prioritization Results, Phase 1 Final, April 2019, page A-3.*

[38] *Los Angeles Department of Water and Power, Sources of Supply: Groundwater Website.*

years, 753,400 af/y for single-dry years, and 725,000 af/y for multiple-dry years.[39] As shown in **Table IV.M-3, Estimated Daily Water Consumption**, in **Section IV.M.1,** the Project is anticipated to consume a net increase of approximately 110.19 af/y of water. This projected water demand from the Project falls within the UWMP's projected water supplies through 2040, representing approximately 0.016 percent of the projected water supply during average years (710,800 af/y), approximately 0.015 percent of the projected water supplies during single-dry years (753,400 af/y), and approximately 0.015 percent of projected water supplies during multiple-dry years (725,000 af/y). Accordingly, as detailed in **Section IV.M.1**, the Project's water demand would be within the projections of the UWMP.[40] Additionally, the Project would be required to implement water-saving features to reduce the amount of water used by the Project in accordance with water conservation measures, including Title 20 and Title 24 (CalGreen) of the California Administrative Code, City Ordinance No. 184,248, the 2017 Los Angeles Plumbing Code, and the 2017 Los Angeles Green Building Code. The Project would achieve further water savings due to additional conservation commitments agreed to by the Project Applicant as detailed under project design features PDF WAT-1 through PDF WAT-4 as detailed in **Section IV.M.1**. Furthermore, as previously discussed, neither construction nor operation of the Project is anticipated to encounter groundwater, therefore, the extraction of groundwater would not be required. Additionally, the Project would include infiltration basins and trenches to allow for a minimal amount of groundwater recharge with stormwater runoff. Therefore, the Project would slightly improve recharge on the Site as compared to existing conditions as the Project Site is 100 percent impervious and does not currently provide recharge for the groundwater basin. Accordingly, the Project would not conflict with or obstruct implementation of the SGMA or a local GSP. **Impacts to sustainable groundwater management plans would be less than significant.**

(2) Mitigation Measures

Under the Project, impacts to water quality control plans and sustainable groundwater management plans would be less than significant; no mitigation would be required.

(3) Level of Significance After Mitigation

Under the Project, impacts to water quality control plans and sustainable groundwater management plans would be less than significant without mitigation.

e) Cumulative Impacts

(1) Impact Analysis

The geographic context for the cumulative impact analysis on groundwater level is the Central Subbasin. There are 172 Related Projects (as listed in **Section III, Environmental Setting,** and shown in **Figure III-5** of this Draft EIR). As previously discussed, implementation of the Project

[39] *Los Angeles Department of Water & Power, 2015 Urban Water Management Plan, June 2016.*

[40] *Los Angeles Department of Water & Power, Water Supply Assessment – Morrison Project for APNs 5163-024-009 and 5163-024-014, 1100 E 5th Street, Los Angeles, California, 90013, February 4, 2020. See **Appendix H.2** of this Draft EIR.*

would result in a decrease in impervious surface area. Development of these 172 Related Projects could result in changes in impervious surface area within their respective project sites. However, as with the Project, all of the Related Projects are located within the highly urbanized portion of Los Angeles, predominantly the Downtown area, which includes mostly developed, impervious project sites. Accordingly, their potential to generate a notable amount of new impermeable surface is limited; and any potential increase would be addressed by the specified standards established in the City's LID Ordinance. As the Related Projects are located in a highly urbanized area, any potential reduction in groundwater recharge due to the overall net change in impervious surfaces within the area encompassed by the Related Project sites would be minimal in the context of the regional groundwater basin. Furthermore, in cases where the related projects would require dewatering during excavation, dewatering activities would be temporary and local and would not have the potential to influence regional groundwater flow and level. Additionally, as with the Project, the development of the Related Projects would be subject to review and approval pursuant to all applicable regulatory requirements regarding groundwater hydrology and management, including GSPs, the City's Landscape and LID Ordinances, and any required mitigation of potential groundwater hydrology impacts.

As detailed above, the Project would not significantly impact groundwater hydrology or management and would be required to implement BMPs to prevent infiltration of a large amount of rainfall that would affect groundwater hydrology. Additionally, the Project's water demand would be within the projections of the UWMP and the Project would be required to implement water-saving features to reduce the amount of water used by the Project in accordance with water conservation measures, including Title 20 and 24 of the California Administrative Code.

Accordingly, cumulative impacts to groundwater hydrology would be less than significant and the Project's incremental contribution to the impact would not be cumulatively considerable.

(2) Mitigation Measures

Under the Project, cumulative impacts to hydrology and water quality would be less than significant; no additional mitigation would be required.

(3) Level of Significance After Mitigation

Under the Project, cumulative impacts to hydrology and water quality would be less than significant without mitigation.