IV. Environmental Impact Analysis

F. Hydrology and Water Quality

1. Introduction

This section describes the existing surface water and groundwater hydrology, surface water and ground water quality, and their federal, state, and local regulations. This section evaluates the Project's potential hydrology and water quality impacts based upon whether the Project would violate water quality standards or waste discharge requirements, deplete groundwater supplies, or interfere with groundwater recharge, alter existing drainage patterns, exceed capacity of drainage systems, or degrade water quality.

This section is based, in part, on information and findings contained in the *676 Mateo Street Mixed-Use Project Technical Report: Water Resources*, prepared by KPFF Consulting Engineers, November 20, 2018 (Water Resources Report) (included as **Appendix G** to this Draft EIR).

2. Environmental Setting

a) Regulatory Framework

(1) Federal

(a) Clean Water Act

The Clean Water Act (CWA)[1] was first introduced in 1948 as the Water Pollution Control Act. The CWA authorizes federal, state, and local entities to cooperatively create comprehensive programs for eliminating or reducing the pollution of state waters and tributaries. The primary goals of the CWA are to restore and maintain the chemical, physical, and biological integrity of the nation's waters and to make all surface waters fishable and swimmable. As such, the CWA forms the national framework for the management of water quality and the control of pollutant discharges. The CWA also sets forth a number of objectives in order to achieve the above-mentioned goals. These objectives include regulating pollutant and toxic pollutant discharges; providing for water

[1] *United States, Clean Water Act, Pub.L. 92-500, 33 U.S.C., § 1251 et seq., 1972.*

quality that protects and fosters the propagation of fish, shellfish and wildlife; developing waste treatment management plans; and developing and implementing programs for the control of non-point sources of pollution.[2]

Since its introduction, major amendments to the CWA have been enacted (e.g., 1961, 1966, 1970, 1972, 1977, and 1987). Amendments enacted in 1970 created the U.S. Environmental Protection Agency (USEPA), while amendments enacted in 1972 deemed the discharge of pollutants into waters of the United States from any point source unlawful unless authorized by a USEPA National Pollutant Discharge Elimination System (NPDES) permit. Amendments enacted in 1977 mandated development of a "Best Management Practices" Program at the state level and provided the Water Pollution Control Act with the common name of "Clean Water Act," which is universally used today. Amendments enacted in 1987 required the USEPA to create specific requirements for discharges.

In response to the 1987 amendments to the CWA and as part of Phase I of its NPDES permit program, the USEPA began requiring NPDES permits for: (1) MS4 generally serving, or located in, incorporated cities with 100,000 or more people (referred to as municipal permits); (2) 11 specific categories of industrial activity (including landfills); and (3) construction activity that disturbs five acres or more of land. Phase II of the USEPA's NPDES permit program, which went into effect in early 2003, extended the requirements for NPDES permits to: (1) numerous small MS4s,[3] (2) construction sites of one to five acres, and (3) industrial facilities owned or operated by small municipal separate storm sewer systems.

As of 1991, all municipal and industrial stormwater runoff is regulated under the NPDES system. The CWA has established 126 "priority contaminants (metals and organic chemicals)" and the California Ocean Plan has established effluent limitations for 21 of these pollutants. The USEPA is the primary federal agency responsible for implementing the CWA. In 2008, the USEPA published draft Effluent Limitation Guidelines for the construction and development industry. On December 1, 2009, the EPA finalized its 2008 Effluent Guidelines Program Plan.

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[2] *Non-point sources of pollution are carried through the environment via elements such as wind, rain, or stormwater and are generated by diffuse land use activities (such as runoff from streets and sidewalks or agricultural activities) rather than from an identifiable or discrete facility.*

[3] *A small MS4 is any MS4 not already covered by the Phase I program as a medium or large MS4. The Phase II Rule automatically covers on a nationwide basis all small MS4s located in "urbanized areas" as defined by the Bureau of the Census (unless waived by the NPDES permitting authority), and on a case-by-case basis those small MS4s located outside of urbanized areas that the NPDES permitting authority designates.*

The NPDES permit program is typically administered by individual authorized states. As discussed below in greater details, in California, the NPDES stormwater permitting program is administered by the State Water Resources Control Board (SWRCB).

(b) Federal Anti-Degradation Policy

The Federal Anti-Degradation Policy[4] requires states to develop statewide anti-degradation policies and identify methods for implementing them. Pursuant to the Code of Federal Regulations (CFR), state anti-degradation policies and implementation methods shall, 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 Federal Safe Drinking Water Act (SDWA), established in 1974, sets drinking water standards throughout the country and is administered by the USEPA. The drinking water standards established in the SDWA are referred to as the National Primary Drinking Water Regulations (Primary Standards, Title 40, CFR Part 141) and the National Secondary Drinking Water Regulations (Second Standards, Title 40 CFR Part 143). California passed its own Safe Drinking Water Act in 1986 that authorizes the state's Department of Health Services to protect the public from contaminants in drinking water by establishing maximum contaminants levels (MCLs), as set forth in the California Code of Regulations (CCR), Title 22, Division 4, Chapter 15, that are at least as stringent as those developed by the USEPA, as required by the Federal SDWA.

(2) State

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

The Porter-Cologne Water Quality Control Act[5] established the legal and regulatory framework for California's water quality control. The California Water Code (CWC) authorizes the 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. The SWRCB was created by the Legislature in 1967. Its joint authority over water distribution and water quality protection allows the Board to provide protection for the state's waters.

[4] *United States, 48 F.R. 51400, Title 40 CFR 131.12.*
[5] *State of California, Porter-Cologne Water Quality Control Act, Water Code § 13000 et seq., 1969.*

Under the CWC, the SWRCB is divided into nine Regional Water Quality Control Boards (RWQCBs), governing the implementation and enforcement of the CWC and CWA. The Project Site is located within Region 4, also known as the Los Angeles Regional Water Quality Control Board (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 Basin Plan for its region. This Basin Plan must adhere to the policies set forth in the CWC and established by the SWRCB. The RWQCB is also given authority to issue waste discharge requirements, enforce action against stormwater discharge violators, and monitor water quality.[6]

(b) California Anti-Degradation Policy

The California Anti-Degradation Policy,[7] otherwise known as the *Statement of Policy with Respect to Maintaining High Quality Water in California* was adopted by the SWRCB in 1968. Unlike the Federal Anti-Degradation Policy, the California Anti-Degradation 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 such water resource.

(c) California Toxics Rule

In 2000, the USEPA promulgated the California Toxics Rule,[8] which establishes water quality criteria for certain toxic substances to be applied to waters in the state. The USEPA promulgated this rule based on the USEPA's determination that the numeric criteria are necessary in 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) California Water Plan

The California Water Plan[9] provides a framework for water managers, legislators, and the public to consider options and make decisions regarding California's water future. The plan, which is updated every five years, presents basic data and information on

[6] *U.S. Environmental Protection Agency – Clean Water Act, July 2001.*
[7] *California, State Water Resources Control Board, Resolution No. 68-16, 1968.*
[8] *United States, Environmental Protection Agency, Final Rule, California Toxics Rule, 66 F.R. 9960, Title 40 CFR 131.*
[9] *State of California, the Natural Resources Agency, Department of Water Resources, California Water Plan, Update 2018, June 2019.*

California's water resources including water supply evaluations and assessments of agricultural, urban, and environmental water uses to quantify the gap between water supplies and uses. The plan also identifies and evaluates existing and proposed statewide demand management and water supply augmentation programs and projects to address the state's water needs.

The goal for the California Water Plan Update is to meet Water Code requirements, receive broad support among those participating in California's water planning, and be a useful document for the public, water planners throughout the state, legislators and other decision-makers.

(e) Sustainable Groundwater Management Act

On September 16, 2014, the State of California signed into law the Sustainable Groundwater Management Act (SGMA).[10] Comprised of three bills, AB 1739, SB 1168, and SB 1319, the SGMA provides a framework for long-term sustainable groundwater management across California and requires governments and water agencies of high and medium priority basins to halt overdraft and bring groundwater basins into balanced levels of pumping and recharge. Under the roadmap laid out by the legislation, local and regional authorities in medium and high priority groundwater basins have formed Groundwater Sustainability Agencies (GSAs) that will oversee the preparation and implementation of a local Groundwater Sustainability Plan (GSP). Local stakeholders have until 2022 (in critically overdrafted basins until 2020) to develop, prepare, and begin implementation of Groundwater Sustainability Plans. GSAs will have until 2042 (2040 in critically overdrafted basins) to achieve groundwater sustainability. The Project Site overlies a basin which is not designated as critically overdrafted and as such, no GSA has been formed to develop a local GSP for its management as of yet.

(3) Regional

(a) County of Los Angeles Hydrology Manual

Pursuant to the City of Los Angeles (City) Special Order No. 007-1299, December 3, 1999, the City has adopted the Los Angeles County (County) Department of Public Works Hydrology Manual as its basis of design for storm drainage facilities. The Hydrology Manual[11] 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

[10] *State of California, the Sustainable Groundwater Management Act of 2014 And Related Statutory Provisions from SB1168 (Pavley), AB1739 (Dickinson), and SB1319 (Pavley) as Chaptered, 2014.*

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

event. The County also limits the allowable discharge into existing storm drain facilities based on the municipal separate storm sewer systems (MS4) permit, which is enforced on all new developments that discharge directly into the County's storm drain system. Any proposed drainage improvements of County-owned storm drain facilities such as catch basins and storm drain lines require approval/review from the Los Angeles County Flood Control District (LACFCD).

Drainage and flood control structures and improvements within the City are subject to review and approval by the City's Department of Public Works, Bureau of Engineering, 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 storm drain plans prior to construction. Any proposed increases in discharge directly into County facilities, or proposed improvements of County-owned storm drain facilities, such as catch basins and storm drain lines, require approval from County Flood Control to ensure compliance with the County's Municipal NPDES Permit requirements.

(b) NPDES Permit Program

As indicated above, in California, the NPDES stormwater permitting program, established in 1972, is administered by the SWRCB through its nine RWQCBs. SWRCB Order No. 2012-0006-DWQ, known as "The General Permit," adopted on September 2, 2009 and amended on July 17, 2012, implements the NPDES permit program statewide. The main objectives of the General Permit are to:

1. Reduce erosion;
2. Minimize or eliminate sediment in stormwater discharges;
3. Prevent material used at a construction site from contacting stormwater;
4. Implementing a sampling and analysis program;
5. Eliminate unauthorized non-stormwater discharges from construction sites;
6. Implement appropriate measures to reduce potential impacts on waterways both during and after construction of projects; and
7. Establish maintenance commitments on post-construction pollution control measures.

The 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. The General Permit requires that developers comply with the following requirements:

- Eliminate or reduce non-storm water discharges to storm sewer systems and other Waters of the United States; and
- Develop and implement a Storm Water Pollution Prevention Program (SWPPP) which specifies Best Management Practices (BMPs), as further discussed below, 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;
- Perform inspections and maintenance of all BMPs.[12]

The General Permit authorizes the discharge of stormwater associated with construction activity from construction sites. However, it prohibits the discharge of materials other than stormwater and all discharges which contain hazardous substances in excess of reportable quantities, established at 40 Code of Federal Regulations (CFR) 117.3 or CFR 302.4, unless a separate NPDES permit has been issued to regulate those discharges. In addition, the General Permit incorporates discharge prohibitions contained in water quality control plans, as implemented by the nine RWQCBs.[13]

(i) Construction: Storm Water Pollution Prevention Program

For all construction activities disturbing more than one acre of land, California mandates the development and implementation of a SWPPP. The SWPPP documents the selection and implementation of BMPs, i.e. state-of-the-art control and treatment techniques for reducing environmental impacts, for a specific construction project. The SWPPP also charges property owners with stormwater quality management responsibilities. A construction site subject to the General Permit must prepare and implement a SWPPP that meets the requirements of the General Permit.[14,15]

A SWPPP is meant 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 storm drain system. BMPs typically address stabilization of construction areas, minimization of erosion during construction, sediment

[12] *National Pollutant Discharge Elimination System (NPDES) General Permit For Storm Water Discharges Associated With Construction Activity (General Permit) Water Quality Order 99-08-DWQ, Fact Sheet, page 1.*
[13] *National Pollutant Discharge Elimination System (NPDES) General Permit For Storm Water Discharges Associated With Construction Activity (General Permit) Water Quality Order 99-08-DWQ, Fact Sheet, page 4.*
[14] *State Water Resources Control Board, National Pollutant Discharge Elimination System.*
[15] *U. S. Environmental Protection Agency, National Pollutant Discharge Elimination System.*

control, control of pollutants from construction materials, and post-construction stormwater management (e.g., the minimization of impervious surfaces or treatment of stormwater runoff). The SWPPP is also required to include a discussion of the proposed program to inspect and maintain all BMPs.

A site-specific SWPPP could include, but not be limited to the following BMPs:

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

- 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.

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 implemented prior to the commencement of construction, and may

require modification by a developer during the course of construction as conditions warrant. Erosion control and drainage devices are required to be provided in accordance with the General Construction Activity Stormwater Permit and SWPPP as well as the Municipal Separate Storm Sewer System Discharges within the Coastal Watersheds of Los Angeles County (MS4 Permit) (see below). When project construction is complete, a 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 Activities

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 June 6, 2013 (Order No. R4-2013- 0095, 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.[16]

(c) Standard Urban Stormwater Mitigation Plan

A Municipal NPDES Permit was issued in December 2001 to Los Angeles County and 84 incorporated permittee cities within the County (Permittee). The permit defines the minimum required BMPs that must be adopted by the Permittee municipalities and included by developers within plans for facility operations. To obtain coverage under this permit, a developer must obtain approval of a project-specific Standard Urban Stormwater Mitigation Plan (SUSMP) from the appropriate Permittee.

A SUSMP addresses the discharge of pollutants within stormwater generated following new construction or redevelopment. Under recent regulations adopted by the LARWQCB, projects are required to implement a SUSMP during the operational life of a project to ensure that stormwater quantity and quality are addressed by incorporating BMPs into project design. This plan defines water quality design standards to ensure that stormwater runoff is managed for water quality concerns and to ensure that pollutants

[16] *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.*

carried by stormwater are confined and not delivered to receiving waters. Applicants are required to abide by source control and treatment control BMPs from the list approved by the LARWQCB and included in the SUSMP. These measures include infiltration of stormwater into the ground, as well as filtering runoff before it leaves a site. This can be accomplished through various means, including the use of infiltration pits, flow-through planter boxes, hydrodynamic separators, and catch basin filters.

Typical BMPs to be implemented as part of the SUSMP for a project to manage post-construction stormwater runoff could include, but would not be limited to, the following:

- Peak Storm Water Runoff Discharge Rate: Post-development peak stormwater runoff discharge rates shall not exceed the estimated pre-development rate for developments where the increased peak storm water discharge rate will result in increased potential for downstream erosion;
- Provide storm drain system Stenciling and Signage (only applicable if a catch basin is built on-site);
- Properly design outdoor material storage areas to provide secondary containment to prevent spills;
- Properly design trash storage areas to prevent off-site transport of trash;
- Provide proof of ongoing BMP Maintenance of any structural BMPs installed;
- Design Standards for Structural or Treatment control BMPs:
- Conserve natural and landscaped areas;
- Provide planter boxes and/or landscaped areas in yard/courtyard spaces;
- Post-construction treatment control BMPs are required to incorporate, at minimum, either a volumetric or flow based treatment control design or both, to mitigate (infiltrate, filter or treat) storm water runoff.

In addition, project applicants subject to the SUSMP requirements must select source control and, in most cases, treatment control BMPs from the list approved by the RWQCB. The BMPs must control peak flow discharge to provide stream channel and over bank flood protection, based on flow design criteria selected by the local agency. Further, the source and treatment control BMPs must be sufficiently designed and constructed to collectively treat, infiltrate, or filter stormwater runoff from one of the following:

- The 85th percentile 24-hour runoff event determined as the maximized capture stormwater volume for the area, from the formula recommended in Urban Runoff

Quality Management, WEF Manual of Practice No. 23/ASCE Manual of Practice No. 87, (1998);

- The volume of annual runoff based on unit basin storage water quality volume, to achieve 80 percent or more volume treatment by the method recommended in California Stormwater Best Management Practices Handbook—Industrial/ Commercial, (1993);

- The volume of runoff produced from a 0.75-inch storm event, prior to its discharge to a stormwater conveyance system; or

- The volume of runoff produced from a historical-record based reference 24- hour rainfall criterion for "treatment" (0.75-inch average for the Los Angeles County area) that achieves approximately the same reduction in pollutant loads achieved by the 85th percentile 24-hour runoff event.

(d) Los Angeles County MS4 Permit

LARWQCB Order No. R4-2012-0175, NPDES No. CAS00400, effective December 28, 2012, Waste Discharge Requirements for Municipal Separate Storm Sewer System Discharges within the Coastal Watersheds of Los Angeles County (MS4 Permit), controls the quality of runoff entering municipal storm drains in the County. The requirements of Order No. R4-2012-0175 cover 84 cities and most of the unincorporated areas of Los Angeles County. LACFCD is designated as the Principal Permittee. The other permittees are the 84 Los Angeles County cities (including the City of Los Angeles) and Los Angeles County. Collectively, these are the "Co-Permittees." The MS4 Permit is intended to ensure that combinations of site planning, source control and treatment control practices are implemented to protect the quality of receiving waters. To do so, the MS4 Permit requires that new development employ BMPs designed to control pollutants in stormwater runoff, details specific sizing criteria for BMPs, and specifies flow control requirements. These BMPs include structural practices, source control and treatment techniques and systems, and site design planning principles addressing water quality.

Specifically, Section VI.D.8, of the MS4 Permit, Development Construction Program, requires Permittees (including the City) to enforce implementation of BMPs, including, but not limited to, approval of an Erosion and Sediment Control Plan (ESCP) for all construction activities within their jurisdiction. Applicants and construction contractors are required to implement BMPs that would meet or exceed local, state, and federal mandated guidelines for storm water treatment to control erosion and to protect the quality of surface water runoff during the construction period. BMPs utilized could include, without limitation, the following:

- disposing of waste in accordance with all applicable laws and regulations;

- cleaning up leaks, drips, and spills immediately;
- conducting street sweeping during construction activities;
- limiting the amount of soil exposed at any given time;
- covering trucks;
- keeping construction equipment in good working order; and
- installing sediment filters during construction activities.

As previously discussed, under existing regulations, for construction sites over one acre in size, the contractor would file a NOI with the SWRCB and prepare a SWPPP before the start of any construction activity.

With respect to runoff water quality during operation, Section VI.D.7 of the MS4 Permit, Planning and Land Development Program, is applicable to, among others, development projects equal to one acre or greater of disturbed area and adding more than 10,000 square feet of impervious surface. This program requires, among other things, that projects retain on site the runoff volume from (a) the 0.75-inch, 24-hour rain event or (b) the 85th percentile, 24-hour rain event, as determined from the Los Angeles County 85th percentile precipitation isohyetal map, whichever is greater. Structural BMPs, also referred to as treatment control BMPs, involve physical treatment of the runoff, usually through structural means. Site design or planning management BMPs are used to minimize runoff from new development and to discourage development in environmentally sensitive areas that are critical to maintaining water quality.

Among other things, the MS4 Permit requires the co-permittees to prepare a Stormwater Quality Management Plan (SQMP) specifying the BMPs that will be implemented to reduce the discharge of pollutants in stormwater to the maximum extent possible (MEP). The various components of the SQMP, taken together, are expected to reduce pollutants in stormwater and urban runoff to the MEP. The emphasis of the SQMP is pollution prevention through education, public outreach, planning, and implementation of source control BMPs first, followed by structural and treatment control BMPs. Erosion control and drainage devices are required to be provided in accordance with the MS4 Permit in addition to the General Permit and SWPPP. Moreover, runoff controls are required to be provided in accordance with the MS4 Permit, in addition to the SUSMP and LID Ordinance (see below).

(e) Board Basin Plan for the Coastal Watersheds of Los Angeles and Ventura Counties

As required by the California Water Code, the LARWQCB has adopted the "Water Quality Control Plan, Los Angeles Region: Basin Plan for the Coastal Watersheds of Los Angeles and Ventura Counties" (Basin Plan).[17] Specifically, the Basin Plan designates beneficial uses for surface and groundwaters, sets narrative and numerical objectives that must be attained or maintained to protect the designated beneficial uses and conform to the state's anti-degradation policy, and describes implementation programs to protect all waters in the Los Angeles Region. In addition, the Basin Plan incorporates (by reference) all applicable State and Regional Board plans and policies and other pertinent water quality policies and regulations. Those of other agencies are referenced in appropriate sections throughout the Basin Plan.

The Basin Plan is a resource for the LARWQCB and others who use water and/or discharge wastewater in the Los Angeles Region. Other agencies and organizations involved in environmental permitting and resource management activities also use the Basin Plan. Finally, the Basin Plan provides valuable information to the public about local water quality issues.

(4) Local

(a) Los Angeles Municipal Code

(i) Section 62.105, Construction "Class B" Permit

Any proposed drainage improvements within the street right-of-way or any other property owned by, to be owned by, or under the control of the City requires the approval of a B-permit (Section 62.105, Los Angeles Municipal Code (LAMC)). Under the B-permit process, storm drain installation plans are subject to review and approval by the City of Los Angeles Department of Public Works, Bureau of Engineering (BOE). Additionally, any connections to the City's storm drain system from a property line to a catch basin or a storm drainpipe requires a storm drain permit from BOE.

(ii) 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. 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. Section 12.41 sets minimum standards for water

[17] *Los Angeles Regional Water Quality Control Board, LARWQCB Basin Plan.*

delivery systems (irrigation) to landscapes. 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; and the Soil and Watershed Conservation practice is intended, among other purposes, to increase the "residence time of 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.

(iii) Section 64.70.01, Stormwater and Urban Runoff Pollution Control Ordinance

LAMC Section 64.70.01, 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 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. The Ordinance prohibits the discharge of pollutants by persons operating or performing industrial or commercial activities into the storm drain system and receiving waters, except as authorized by a general or separate NPDES permit; defines illicit, exempt, and conditionally exempt discharges; prohibits the placement or discharge of trash, sewage, hazardous materials, and other waste in storm drains or receiving waters, or the accumulation, storage, or disposal of these materials in such a way as to contaminate runoff discharged to these facilities; requires control of pollutants from parking lots; and prohibits illicit connections to municipal storm drain facilities.

(iv) 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 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.

(b) Low Impact Development Ordinance

In November 2011, the City adopted a City-wide ordinance (Ordinance No. 181,899) amending LAMC Sections 64.70.01 and 64.72 to expand the applicability of the existing

Stormwater Ordinance (LAMC Sections 64.70.01 and 64.72, discussed above) requirements by imposing rainwater Low Impact Development (LID) strategies on projects that require building permits. The LID ordinance became effective on May 12, 2012.

LID is a stormwater management strategy with goals to mitigate the impacts of increased runoff and stormwater pollution as close to its source as possible. LID promotes the use of natural infiltration systems, evapotranspiration, and the reuse of stormwater. The goal of these 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 may be used.[18]

The City-wide 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 BMPs contained therein are compliant with County Municipal NPDES Permit requirements for stormwater management, those 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 first three- quarters of an inch of runoff flow during storm events defined in the City's SUSMP BMPs, through one or more of the City's preferred SUSMP improvements: on-site infiltration, capture and reuse, or biofiltration/biotreatment BMPs, to the maximum extent feasible as described below.

- On-Site Infiltration – Refers to the physical process of percolation, or downward seepage, of water through a soil's pore space. As water infiltrates, the natural filtration, adsorption, and biological decomposition properties of soils, plant roots, and micro-organisms work to remove pollutants prior to the water recharging the underlying groundwater. Infiltration BMPs include infiltration basins, infiltration trenches, infiltration galleries, bioretention without an underdrain, dry wells, and permeable pavement. Infiltration can provide multiple benefits, including pollutant removal, peak flow control, groundwater recharge, and flood control. However,

[18] *City of Los Angeles Department of Public Works, Bureau of Sanitation, Watershed Protection Division, Development Best Practices Handbook – Low Impact Development Manual, Part B: Planning Activities, 4th Edition, June 2011.*

conditions that can limit the use of infiltration include soil properties, proximity to building foundations and other infrastructure, geotechnical hazards (e.g., liquefaction, landslides), and potential adverse impacts on groundwater quality (e.g. industrial pollutant source areas, contaminated soils, groundwater plumes). To ensure that infiltration would be physically feasible and desirable, a categorical screening of site feasibility criteria must be completed prior to the use of infiltration BMPs.

- Capture and Use – Refers to a specific type of BMP that operates by capturing stormwater runoff and holding it for efficient use at a later time. On a commercial or industrial scale, capture and use BMPs are typically cisterns, which can be implemented both above and below ground. Cisterns are sized to store a specified volume of water with no surface discharge until this volume is exceeded. The primary use of captured runoff is for subsurface drip irrigation purposes. The temporary storage of roof runoff reduces the runoff volume from a property and may reduce the peak runoff velocity for small, frequently occurring storms. In addition, by reducing the amount of stormwater runoff that flows into a stormwater conveyance system, fewer pollutants are transported through the conveyance system into local streams and the ocean. The on-site use of the harvested water for non-potable domestic purposes conserves City- supplied potable water and, where directed to unpaved surfaces, can recharge groundwater in local aquifers.

- Biofiltration/Bioretention BMPs – Refers to landscaped facilities that capture and treat stormwater runoff through a variety of physical and biological treatment processes. Facilities normally consist of a ponding area, mulch layer, planting soils, plants, and in some cases, an underdrain. Runoff that passes through a biofiltration system is treated by the natural adsorption and filtration characteristics of the plants, soils, and microbes with which the water contacts. Biofiltration BMPs include vegetated swales, filter strips, planter boxes, high flow biotreatment units, biofiltration facilities, and bioretention facilities with underdrains. Biofiltration can provide multiple benefits, including pollutant removal, peak flow control, and low amounts of volume reduction through infiltration and evapotranspiration.

(c) City of Los Angeles Water Quality Compliance Master Plan for Urban Runoff

The Water Quality Compliance Master Plan for Urban Runoff[19] (Water Quality Master Plan) was developed by the Bureau of Sanitation, Watershed Protection Division in collaboration with stakeholders in response to a 2007 City Council motion for the

[19] *City of Los Angeles, Department of Public Works, Bureau of Sanitation, Watershed Protection Division, Water Quality Compliance Master Plan for Urban Runoff, May 2009.*

development of a water quality master plan addressing pollution from urban runoff within the City. The Water Quality Master Plan was adopted in April 2009.

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

(d) City of Los Angeles Stormwater Program

The City supports the policies of the Construction General Permit and the Los Angeles County NPDES permit through the *Development Best Management Practices Handbook, Part A* Construction *Activities,* 3rd Edition (Handbook), and associated ordinances were adopted in September 2004. *Part B Planning Activities*, 4th Edition was adopted in June 2011. The Handbook provides guidance for developers in complying with the requirements of the Development Planning Program regulations of the City's Stormwater Program. Compliance with the requirements of this Handbook is required by City of Los Angeles Ordinance No. 173,494. The Handbook and ordinances also have specific minimum BMP requirements for all construction activities and require dischargers whose construction projects disturb one acre or more of soil to prepare a SWPPP and file a Notice of Intent (NOI) with the SWRCB. The NOI informs the SWRCB of a particular project and results in the issuance of a Waste Discharger Identification (WDID) number, which is needed to demonstrate compliance with the General Permit.

The City implements the requirement to incorporate stormwater 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 storm water requirements. Plans and specifications are reviewed to ensure that the appropriate BMPs are incorporated to address storm water pollution prevention goals. The Standard Urban Stormwater Mitigation Plan (SUSMP) provisions that are applicable to new residential and commercial developments include, but are not limited to, the following:[20]

- Peak Storm Water Runoff Discharge Rate: Post-development peak storm water runoff discharge rates shall not exceed the estimated pre-development

[20] *City of Los Angeles Stormwater Program, Standard Urban Stormwater Mitigation Plan.*

rate for developments where the increased peak storm water discharge rate will result in increased potential for downstream erosion.

- Provide storm drain system Stenciling and Signage (only applicable if a catch basin is built on-site).
- Properly design outdoor material storage areas to provide secondary containment to prevent spills.
- Properly design trash storage areas to prevent off-site transport of trash.
- Provide proof of ongoing BMP Maintenance of any structural BMPs installed.
- Conserve natural and landscaped areas.
- Provide planter boxes and/or landscaped areas in yard/courtyard spaces.
- Properly design trash storage areas to provide screens or walls to prevent off-site transport of trash.
- Provide proof on ongoing BMP maintenance of any structural BMPs installed.
- Post-construction treatment control BMPs are required to incorporate, at minimum, either a volumetric or flow based treatment control design or both, to mitigate (infiltrate, filter or treat) storm water runoff.

In addition, project applicants subject to the SUSMP requirements must select source control and, in most cases, treatment control BMPs from the list approved by the RWQCB. The BMPs must control peak flow discharge to provide stream channel and over bank flood protection, based on flow design criteria selected by the local agency. Further, the source and treatment control BMPs must be sufficiently designed and constructed to collectively treat, infiltrate, or filter stormwater runoff discussed above under *Standard Urban Stormwater Mitigation Plan*.

The City's preferred SUSMP improvement is infiltration of stormwater on a site since it allows for groundwater recharge and reduces the volume of stormwater entering municipal drains. If site conditions are not suitable for infiltration, the City requires one of the following systems to be implemented, in order of City preference: bio-filtration/retention systems, stormwater capture and reuse, mechanical/hydrodynamic units, or a combination of these.

b) Existing Conditions

(1) Surface Water Hydrology

(a) Regional

The Project Site is located within the Los Angeles River Watershed in the Los Angeles Central Basin. The watershed encompasses a land area of approximately 834 square miles. The eastern portion spans from the Santa Monica Mountains to Simi Hills and in the west from the Santa Susana Mountains to the San Gabriel Mountains. The watershed is shaped by the path of the Los Angeles River, which flows from its headwaters in the mountains eastward toward the northern corner of Griffith Park. There the channel turns southward through Glendale Narrows before it flows across the coastal plain ultimately discharging into the Pacific Ocean at San Pedro Bay, near Long Beach. The Los Angeles River has an average daily discharge of approximately 183,000 cubic feet of stormwater per second from a 50-year frequency storm event.[21] The Los Angeles River has evolved from an uncontrolled, meandering river providing a valuable source of water for early inhabitants to a major flood protection waterway.

(b) Local

Underground storm drainage facilities are located offsite and are owned and maintained by the City. Stormwater runoff from the Project Site discharges into curb and gutter which conveys stormwater to nearby street catch basins. The catch basins discharge the stormwater via various underground pipe networks into the Los Angeles River.

(c) Project Site

The Project Site is currently occupied by a one-story warehouse and office building, and a paved parking lot. Generally, the Project Site slopes downward from northeast to southwest approximately two feet. Runoff within the Project Site appears to flow away from a ridge near the center of the Project Site running parallel to Mateo and Imperial Streets. As detailed in the Water Resources Technical Report, the total existing flow rate from the Project Site during a 50-year storm event is approximately 3.24 cubic feet per second (cfs), with approximately 1.62 cfs into Mateo Street and 1.62 cfs into Imperial Street.[22]

[21] *County of Los Angeles, Department of Public Works, Los Angeles River.*

[22] *KPFF Consulting Engineers, 676 Mateo Street Mixed-Use Project Technical Report: Water Resources, November 20, 2018, Table 1 – Existing Drainage Stormwater Runoff Calculations.*

(2) Surface Water Quality

(a) Regional

As stated above, the Project Site lies within the Los Angeles River Watershed. Constituents of concern listed for Los Angeles River under California's Clean Water Act Section 303(d) List include cadmium (sediment), trash, coliform bacteria, copper (dissolved), lead, Escherichia (E.Coli), selenium, sediment toxicity, Shellfish Harvesting Advisory, silver, toxicity, viruses (Enteric), and zinc. No TMDL data have been recorded by EPA for this waterbody.

(b) Local

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

(c) Project Site

Based on a site investigation, it appears the Project Site currently does not implement Best Management Practices (BMPs) and apparently has no means of treatment for stormwater runoff.

(3) Groundwater Hydrology

(a) Regional

Groundwater within Los Angeles County is stored in groundwater basins underlying five major geographic areas. The City of Los Angeles overlies the Los Angeles Coastal Plain Groundwater Basin (Basin). The Basin is comprised of the Hollywood, Santa Monica, Central, and West Coast 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. Groundwater use for domestic water supply is a major beneficial use of groundwater basins in Los Angeles County.

(b) Local

The Project Site specifically overlies northeastern portion of the Central Subbasin. The Central is bounded on the north by a surface divide called the La Brea high, and on the northeast and east by emergent less permeable Tertiary rocks of the Elysian, Repetto, Merced and Puente Hills. The southeast boundary between Central Basin and Orange County Groundwater Basin roughly follows Coyote Creek, which is a regional drainage province boundary. The southwest boundary is formed by the Newport Inglewood fault system and the associated folded rocks of the Newport Inglewood uplift.

(c) Project Site

The existing Project Site is improved with an existing building and an existing paved parking lot, and therefore does not contribute to groundwater recharge.

As described in the Geotechnical Report (see **Appendix D.1** of this Draft EIR), groundwater was not encountered during exploration of the Project Site to a maximum depth of 61 feet below the ground surface and the historically highest groundwater is at least 150 feet below the ground surface.[23]

(4) Groundwater Quality

(a) Regional

The Los Angeles Coastal Plain Groundwater Basin falls under the jurisdiction of the LARWQCB. According to LARWQCB's Basin Plan, water quality objectives applying to all ground waters of the region include bacteria, chemical constituents and radioactivity, mineral quality, nitrogen, and taste and odor.[24]

(b) Local

As stated above, the Project Site specifically overlies the Central Subbasin. Based upon LARWQCB's Basin Plan, constituents of concern listed for the Central Subbasin include boron, chloride, sulfate, and Total Dissolved Solids.

(c) Project Site

The Project Site is fully improved with a building and paved parking lot and, therefore, does not contribute to groundwater recharge. As such, the Project Site does not currently

[23] *Geotechnical Engineering Investigation – Proposed Mixed-Use Development; 676 Mateo Street, Los Angeles, September 15, 2017, p. 5.*

[24] *Los Angeles Regional Water Quality Control Board, Basin Plan, March 2013.*

directly contribute to groundwater pollution or otherwise adversely impact groundwater quality.

Other types of risk, such as USTs, have a greater potential to impact groundwater. As discussed in greater detail in Section IV.E, Hazards, of this Draft EIR, the Site Assessment prepared for the Project Site (see **Appendix F.1** of this Draft EIR) noted that although previous land uses included three USTs, all three USTs have been removed and that no further action is required with regard to any of the former USTs.[25] There are no current records of existing USTs or soil contamination on the Project Site.[26]

3. Project Impacts

a) Thresholds of Significance

In accordance with Appendix G to the *State CEQA Guidelines*, the Project would have a significant impact with respect to hydrology and water quality if it would:

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

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

c(i) 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; or

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

c(iii) 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

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[25] *Partner Engineering and Science, Inc., Phase I Environmental Site Assessment Report, 676 Mateo Street, April 22, 2016.*

[26] *Partner Engineer and Science, Inc., Phase I Environmental Site Assessment Report 676 Mateo Street and 677 Imperial Street, Los Angeles, California 90021, April 22, 2016.* ***Appendix F.1*** *of this Draft EIR.*

capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or

c(iv) 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; or

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

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

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

(1) 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.*

(2) 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.*

(3) 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; or*

- *Result in demonstrable and sustained reduction of groundwater recharge capacity.*

(4) 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 *State CEQA Guidelines* Appendix G thresholds and criteria identified in the *L.A. CEQA 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 of potential impacts to surface water hydrology, surface water quality and groundwater is based on the Water Resources Report, prepared by KPFF, Consulting Engineers. The report is provided in **Appendix G** of this Draft EIR. The environmental impacts of the Project with respect to surface water hydrology, water quality, and groundwater are based on the proposed increase surface water flow which could change drainage patterns, contribute to flooding, degrade surface water quality, exceed stormwater collection infrastructure, or effect groundwater supplies and recharge. The existing conditions for surface water hydrology, water quality, and groundwater are compared to the Project's future impact.

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

As compared to the Project, the Increased Commercial Flexibility Option (Flexibility Option) would change the use of the second floor from residential to commercial, and would not otherwise change the Project's land uses or size. The overall commercial

square footage provided would be increased by 22,493 square feet to 45,873 square feet and, in turn, there would be a reduction in the number of live/work units from 185 to 159 units. The overall building parameters would remain unchanged and the design, configuration, and operation of the Flexibility Option would be comparable to the Project. Furthermore, the Flexibility Option would be located on the same Project Site with the same depth to groundwater and flooding/inundation susceptibilities, and would excavate to the same depth, result in the same amount of impervious surfaces, and require/generate the same type and amount of pollutants during construction and operation as the Project. In addition, the Flexibility Option would also be subject to the same regulatory requirements, including the General Construction Activity Stormwater Permit (including implementation of a SWPPP), the SUSMP, the MS4 Permit, and LID development standards. Therefore, the conclusions regarding the impact analysis and impact significance determination presented below for the Project would be the same under the Flexibility Option.

Threshold a) Would the project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?

Because the Flexibility Option would be located on the same Project Site with the same depth to groundwater as the Project, would excavate to the same depth as the Project, and would be subject to the same site conditions and regulatory requirements, the conclusions regarding the impact analysis and impact significance determination presented below for the Project would be the same under the Flexibility Option.

(1) Impact Analysis

(a) Construction

(i) Surface Water

During construction, the Project Site would contain a variety of construction materials such as adhesives, cleaning agents, landscaping, plumbing, painting, heat/cooling, masonry materials, floor and wall coverings, and demolition debris. Spills of construction materials can be a source of stormwater pollution and/or soil contamination. All hazardous materials are to be stored, labeled and used in accordance with the U.S. Occupational Safety and Health Administration regulations. These regulations for routine handling and storing of hazardous materials effectively control the potential stormwater pollution caused by these materials.

Earth moving activities would involve preparation of the Project Site for Project construction. Soil erosion is the process by which soil particles are removed from the land surface, by wind, water and/or gravity. Soil particles removed by stormwater runoff

can have negative impacts on downstream conditions through increased sedimentation as well as spread of contaminants found in the exposed soil of the Project Site. Grading activities can greatly increase erosion processes. Two general strategies are typically required to prevent construction silt from entering drainage courses. First, the amount of exposed soil is typically limited and erosion control procedures are implemented for those areas that must be exposed. Common methods for controlling fugitive dust emissions, such as covering truck loads and street sweeping, are also effective in controlling stormwater quality. Second, the construction area would be secured to control off-site migration of pollutants. Erosion control devices, including temporary diversion dikes/berms, drainage swales, and siltation basins, are typically required around construction areas to ensure that sediment is trapped and properly removed. These measures would be implemented through compliance with the requirements of the General Construction Activity Stormwater Permit, including implementation of a SWPPP, and the MS4 Permit. The Project SWPPP would identify potential pollutant sources that may affect the quality of discharge associated with construction activity, identify non-storm water discharges, and provide design features to effectively prohibit the entry of pollutants into the public storm drain system during construction. When properly designed and implemented, these BMPs would ensure that construction of the Project would not result in degradation of surface water quality through increased sedimentation or spread of soil contaminants. **Accordingly, required compliance with applicable City regulations and implementation of BMPs would ensure that Project and the Flexibility Option construction would not create a significant impact by degrading surface water quality, or by causing a violation of applicable water quality standards. No mitigation measures would be required.**

(ii) Groundwater

With regard to groundwater, construction of the Project is not anticipated to encounter groundwater based on the depth of excavation (approximately 47 feet) and the depth of groundwater (historically 150 feet) below the Project Site. In addition, polluted soils or other features have not been identified on the Project Site that, if exposed to rainfall during construction, could potentially cause pollutants to enter the groundwater table via percolation. Potential percolation would be reduced through implementation of required construction BMPs (such as covering exposed soils and stockpiles during rainfall). BMPs would also be implemented during construction to prevent drainage into the groundwater supply during rain storms. This would prevent any water-borne pollutants that may be present in the environment from entering the groundwater supply. Compliance with all applicable federal, state, and local requirements concerning the handling, storage and disposal of hazardous waste, would reduce the potential for the construction of the Project to release contaminants into groundwater that could affect existing contaminants, expand

the area or increase the level of groundwater contamination, or cause a violation of regulatory water quality standards at an existing production well.

Therefore, the impact of the Project and the Flexibility Option with respect to the violation of water quality standards or waste discharge requirements and degradation of surface water or groundwater quality during construction would be less than significant. No mitigation measures would be necessary.

(b) Operation

(i) Surface Water

With the incorporation of the required LID BMPs, operation of the Project would not result in discharges that would cause: (1) pollution which would alter the quality of the waters of the state (i.e., Los Angeles River) to a degree which unreasonably affects beneficial uses of the waters; (2) contamination 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; or (3) nuisance that would be injurious to health; affect an entire community or neighborhood, or any considerable number of persons; and occurs during or as a result of the treatment or disposal of wastes.

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 are sediment, nutrients, pesticides, metals, pathogens, and oil and grease. The pollutants would be addressed through the implementation of approved LID BMPs. The Project proposes a mix of residential and commercial land uses, which does not represent the type of use that would otherwise degrade water quality (e.g., an industrial land use that could adversely affect water quality).

Furthermore, operation of the Project would not result in discharges that would cause regulatory standards to be violated. The Project Site currently has approximately 100 percent impervious surfaces. Project development would maintain the same percentage of impervious surface. However, a portion of the Project Site would be allocated for stormwater BMPs specifically intended to control and treat stormwater runoff in compliance with LID requirements. As stated above, the Project Site currently discharges stormwater without any means of treatment. However, the Project would include the installation of LID BMPs for, at a minimum, the first flush or the equivalent of the greater between the 85th percentile storm and first 0.75-inch of rainfall for any storm event. The installed BMP systems would be designed with an internal bypass or overflow system to prevent upstream flooding due to large storm events. The stormwater that bypasses the BMP systems would discharge to an approved discharge point in the public right-of-way. **Therefore, the impact of the Project and the Flexibility Option with respect to the**

violation of water quality standards or waste discharge requirements and degradation of surface water quality during operation would be less than significant. No mitigation measures would be required.

(ii) Groundwater

Operational activities that could affect groundwater quality include spills of hazardous materials and leaking underground storage tanks. No underground storage tanks are currently operated or would be operated by the Project. While the development of new building facilities would slightly increase the use of on-site hazardous materials, as described above, compliance with all applicable existing regulations at the Project Site regarding the handling, storage, and potentially required cleanup of hazardous materials would prevent the Project from affecting or expanding any potential areas of contamination, increasing the level of contamination, or causing regulatory water quality standards at an existing production well to be violated, as defined in the California Code of Regulations, Title 22, Division 4, Chapter 15 and the Safe Drinking Water Act. Furthermore, operation of the Project would not require extraction from the groundwater supply based on the depth of excavation (approximately 47 feet) and the depth of groundwater (historically 150 feet) below the Project Site.

Therefore, the impact of the Project and the Flexibility Option with respect to the violation of water quality standards or waste discharge requirements and degradation of surface water or groundwater quality during operation would be less than significant. No mitigation measures would be required.

(2) Mitigation Measures

Under both the Project and the Flexibility Option, 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 both the Project and the Flexibility Option, 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?

Because the Flexibility Option would be located on the same Project Site with the same depth to groundwater as the Project, would excavate to the same depth and develop the

same amount of impervious surfaces as the Project, and would be subject to the same regulatory requirements, the conclusions regarding the impact analysis and impact significance determination presented below for the Project would be the same under the Flexibility Option.

(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. The historic high groundwater level in the vicinity of the Project is on the order of 150 feet below grade. The proposed excavation (approximately 47 feet) would not reach this depth, and it is not expected that groundwater would be encountered during construction that would require either temporary or permanent dewatering.[27] If groundwater were encountered during construction, temporary pumps and filtration would be used in compliance all applicable regulations and requirements, including with all relevant NPDES requirements related to construction and discharges from dewatering operations during construction.

Therefore, the Project and the Flexibility Option would not substantially decrease groundwater supplies in a manner that would impede sustainable groundwater management of the basin. No mitigation measures would be required.

(b) Operation

Regarding groundwater recharge, the Project Site is currently impervious with minimal groundwater recharge potential. The Project would develop hardscape and structures that cover the entire Project Site with impervious surfaces and, therefore, the groundwater recharge potential would remain minimal. The 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.

As discussed above, Project development would require excavation to approximately 47 feet for the subterranean parking. The historic high groundwater level in the vicinity of the Project site is at least 150 feet below grade.[28] As the Project's excavation would not reach this depth, it is not expected that groundwater would be encountered during construction that would require permanent dewatering operations. Furthermore, there

[27] *Geotechnologies, Inc., Geotechnical Engineering Investigation – Proposed Mixed-Use Development; 676 Mateo Street, Los Angeles, September 15, 2017. See* ***Appendix D.1*** *of this Draft EIR.*

[28] *Geotechnologies, Inc., Geotechnical Engineering Investigation – Proposed Mixed-Use Development; 676 Mateo Street, Los Angeles, September 15, 2017. See* ***Appendix D.1*** *of this Draft EIR.*

are no existing wells or spreading grounds within one mile of the Project Site and the Project would not include new injection or supply wells. **Therefore, the Project and the Flexibility Option would not substantially decrease groundwater supplies in a manner that would impede sustainable groundwater management of the basin. No mitigation measures would be required.**

(2) Mitigation Measures

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

(3) Level of Significance After Mitigation

Under both the Project and the Flexibility Option, 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?

Because the Flexibility Option would be located on the same Project Site and would develop the same amount of impervious surfaces as the Project, and would be subject to the same regulatory requirements, the conclusions regarding the impact analysis and impact significance determination presented below for the Project would be the same under the Flexibility Option.

(1) Impact Analysis

(a) Construction

Construction activities for the Project would include demolition of the existing parking lot, excavating down approximately 47 feet for subterranean parking, and constructing the high-rise building, hardscape, and landscape around the building. These activities have the potential to temporarily alter existing drainage patterns and flows on the Project Site by exposing the underlying soils, modifying flow direction, and making the Project Site temporarily more permeable. Temporarily exposed and stockpiled soils could be subject to erosion and conveyance into nearby storm drains during storm events. In addition, on-site watering activities to reduce airborne dust could also lead to increased runoff, potentially resulting in erosion of soils exposed to such runoff.

However, as the construction site would be greater than one acre, the Project would be required to obtain coverage under the NPDES General Construction stormwater 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 and prevent pollution. BMPs would be designed to reduce runoff and pollutant levels in runoff during construction. The NPDES and SWPPP measures are designed to contain and treat, as necessary, stormwater or construction watering on the Project Site so runoff does not impact off-site drainage facilities or receiving waters. The Project Site's relatively flat drainage patterns and the prevention or reduction of surface runoff during construction would prevent substantial alterations to drainage patterns and/or erosion on-site or off-site. In addition, the Project would be required to comply with all applicable City grading permit regulations, including completion of an Erosion Control Plan Checklist, that require necessary measures, plans, and inspections to control runoff from the Site during construction. Standard construction phase BMPs, required as part of this permitting process, would decrease the potential for significant erosion or siltation from soil disturbance associated with construction of the Project. Thus, through compliance with the erosion control measures of the SWPPP, implementation of BMPs, and compliance with applicable City grading regulations, the Project would not substantially alter the Project Site drainage patterns in a manner that would result in substantial erosion or siltation on- or off-site during construction.

Based on the above, construction activities are temporary and flow directions and runoff volumes during construction would be controlled. **Therefore, the construction of the Project and the Flexibility Option would not substantially alter the existing drainage patterns with respect to the potential for erosion or siltation on- or off-site, and the impact would be less than significant. No mitigation measures would be required.**

(b) Operation

The Project is an infill development within a fully urbanized environment and, as such, the Project Site is not an area of exposed natural land and water courses. Once the Project is operational, the Project Site would be impervious and erosion and siltation would not occur. In addition, the pattern of drainage would not be substantially altered compared because similar to the existing condition, runoff from the Project would drain via sheetflow toward the City streets and the Project would not modify the surrounding streets with respect to the manner in which they convey storm runoff to the City storm drain system.

Furthermore, as described above under Threshold a), the Project would include the installation of LID BMPs for, at a minimum, the first flush or the equivalent of the greater between the 85th percentile storm and first 0.75-inch of rainfall for any storm event. The installed BMP systems would be designed with an internal bypass or overflow system to prevent upstream flooding due to large storm events. The stormwater that bypasses the BMP systems would discharge to an approved discharge point in the public right-of-way. This system would have no contact with exposed soils or erodible surfaces that would

generate siltation if exposed to surface water runoff. Accordingly, operation of the Project would not substantially alter drainage patterns across the Project Site, or result in erosion or siltation on-site or off-site. **Therefore, the operational impact related to erosion or siltation resulting from alterations to drainage patterns under the Project and the Flexibility Option would be less than significant. No mitigation measures would be required.**

(2) Mitigation Measures

Under both the Project and the Flexibility Option, 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 both the Project and the Flexibility Option, 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?

Because the Flexibility Option would be located on the same Project Site and would develop the same amount of impervious surfaces as the Project, and would be subject to the same regulatory requirements, the conclusions regarding the impact analysis and impact significance determination presented below for the Project would be the same under the Flexibility Option.

(1) Impact Analysis

(a) Construction

As discussed above under Threshold c(i), during Project construction, a temporary alteration of the existing on-site drainage pattern may occur from the demolition of existing structures and land cover, and site preparation and grading for Project construction. However, these changes would not result in a substantial increase in the rate or amount of surface runoff that could result in flooding due to stringent controls imposed under the General Construction Activity Stormwater Permit, including implementation of a SWPPP, and the MS4 Permit. The Project Site's relatively flat drainage patterns and the prevention or reduction of surface runoff during construction would prevent substantial alterations to

drainage patterns and/or flooding on-site or off-site. In addition, the Project would be required to comply with all applicable City grading permit regulations that require necessary measures, plans, and inspections to control runoff from the Site during construction. Water would be used during the temporary construction phases of the Project (e.g., for dust suppression). However, this water would be mechanically and precisely applied in accordance with the regulatory requirements, and would furthermore be controlled with required construction BMPs under the City's BMP Handbook to prevent discharges. **Therefore, the Project and the Flexibility Option would not substantially alter the existing drainage pattern of the site or area in a manner that would result in flooding on- or off-site, and the impact during construction would be less than significant. No mitigation measures would be required.**

(b) Operation

In the existing condition, the Project Site is approximately 100 percent impervious, and it appears stormwater discharges from the Project Site without filtration. Considering the Project would develop a building and paved areas that cover virtually the entire surface area of the Project Site, the post-project condition would also be approximately 100 percent impervious. Accordingly, there is virtually no incremental increase or decrease in the imperviousness of the Project Site that would substantially increase runoff volumes into the existing storm drain system. Therefore, peak flow rates would not change.

In the existing condition, stormwater sheet flows into off-site catch basins and is discharged into the public storm drain system. The post-project condition would manage stormwater flow to discharge points at the curb face that would direct the stormwater to the public storm drain system. **Table IV.F-1, Existing and Proposed Drainage Stormwater Runoff Comparison,** shows the proposed 50-year frequency design storm event peak flow rate within the Project Site and shows a comparison of the pre- and post-peak flow rates. The numbers in **Table IV.F-1** indicate that there would be no increase in stormwater runoff.

Table IV.F-1
Existing and Proposed Drainage Stormwater Runoff Comparison

Drainage Area	Project Site Area (acres)	Pre-Project Q50 (cfs)[a]	Post-Project Q50 (cfs)[a]	Change from Existing to Proposed Condition
Mateo Street Total	0.96	1.62	3.01	1.39
Imperial Street Total	0.07	1.62	0.21	(-1.41)
Total	**1.03**	**3.24**	**3.22**	**(-0.02)**

[a] *Volumetric flow rate measured in cubic feet per second.*
Source: KPFF, 676 Mateo Street Mixed-Use Project Technical Report: Water Resources, November 20, 2018.

As shown in **Table IV.F-1**, the Project would change the distribution of stormwater discharge between Mateo Street and Imperial Street. Mateo Street would receive an additional 1.39 cubic feet per second of runoff during peak storm events while Imperial Street would receive a reduction of 1.41 cubic feet per second of runoff. Although the Project would increase the peak storm event flow rate into Mateo Street by 1.39 cubic feet per second, the surface curb and gutter in Mateo Street convey stormwater to a 97-inch diameter storm drain in 7th Street that has a capacity of 250 cubic feet per second.29 Accordingly, this increase of 1.39 cubic feet per second would be a negligible amount (0.6 percent) compared to the pipe's capacity.[30] Furthermore, the Project would not increase the total rate or volume of stormwater runoff from the Site overall; there would be an incremental decrease of 0.02 cubic feet per second in the total volumetric flow rate discharging from the Project Site as a whole. As such, the Project would not substantially reduce or increase the amount of surface water discharged into the existing infrastructure or any waterbody.

It is not known if any additional or expanded storm drain infrastructure is planned by the City for the vicinity of the Project Site; however, no new off-site storm drainage infrastructure is proposed by the Project. Required on-site drainage infrastructure would be designed in accordance with City requirements, and would be subject to approval by LADPW, and would safely convey stormwater from the Project Site to the off-site storm drainage system without exceeding existing capacity. It is assumed that should the City plan off-site infrastructure improvements in the vicinity of the Project that the capacity of the new or expanded storm drainage facility would be of a comparable size to the existing storm drain and would be planned in order to accommodate the current and anticipated future development that would be served by the drain.

Furthermore, the LID requirements for the Project Site would outline the stormwater treatment post-construction BMPs required to control pollutants associated with storm events up to the 85th percentile storm event, per the City's Stormwater Program. The Project BMPs would be required to control stormwater runoff with no increase in runoff resulting from the Project, and runoff would continue to discharge to the same locations (Mateo Street and Imperial Street) and drain to the same stormwater systems. Therefore, no changes in the perviousness of the Project Site or no increase in stormwater flows, which could cause flooding outside the Project Site, would occur. **Accordingly, the Project and the Flexibility Option would not substantially alter the existing drainage pattern of the Site or area in a manner that would result in flooding on- or off-site,**

[29] *KPFF, 676 Mateo Street Mixed-Use Project Technical Report: Water Resources, November 20, 2018, page 28.* ***Appendix G*** *of this Draft EIR. KPFF calculates the capacity of a storm drain based on information regarding the slope and size of the drain provided by NavigateLA.*

[30] *KPFF, 676 Mateo Street Mixed-Use Project Technical Report: Water Resources, November 20, 2018, page 28.* ***Appendix G*** *of this Draft EIR.*

and the impact during operation would be less than significant. No mitigation measures would be required.

(2) Mitigation Measures

Under both the Project and the Flexibility Option, 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 both the Project and the Flexibility Option, 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?

Because the Flexibility Option would be located on the same Project Site and would develop the same amount of impervious surfaces as the Project, and would be subject to the same regulatory requirements, the conclusions regarding the impact analysis and impact significance determination presented below for the Project would be the same under the Flexibility Option.

(1) Impact Analysis

(a) Construction

As discussed above in Threshold c(i), construction activities have the potential to result in temporary alterations to the drainage patterns of the Project Site. Alterations in drainage patterns have the potential to result in an increase in the amount of runoff from the Project Site, which could exceed the capacity of the stormwater drainage system or contain pollutants from soil contamination resulting from existing conditions or from the improper handling and storage of hazardous materials required for construction. However, as detailed under Threshold c(i), the Project Site's relatively flat drainage patterns would prevent substantial alterations to drainage patterns and polluted soils or other features have not been identified on the Project Site that, if exposed to rainfall during construction, could potentially cause the spread of pollutants in runoff. Furthermore, temporary changes to drainage patterns would not result in a substantial increase in the rate or amount of surface runoff that could exceed the capacity of existing or planned

stormwater drainage systems or provide substantial additional sources of polluted runoff due to stringent controls imposed under the General Construction Activity Stormwater Permit, including implementation of a SWPPP, and the MS4 Permit. In addition, construction activities would be conducted in accordance with LAMC Sections 64.70 and 64.72, including incorporation of BMPs set forth in the City's BMP Handbook to manage runoff flows and prevent pollution. BMPs would be designed to reduce runoff and pollutant levels in runoff during construction. LAMC Section 64.70 disallows any illicit discharges to the storm drain system and includes Section 64.70.02.D regarding pollution control at building sites, which, along with the City's grading permit regulations (set forth in LAMC, Chapter IX, Article 1), include standard erosion control measures and inspections to ensure the reduction of sedimentation and erosion during grading. LAMC Section 64.72 requires implementation of storm water requirements and construction practices listed in the City's BMP Handbook. In compliance with this requirement, BMPs must be implemented to protect the quality of storm water and non-storm water runoff during construction by controlling the discharge of potential contaminants incident to the construction process.

Because the Project would be required to implement construction control to prevent runoff from leaving the Project Site, stormwater runoff from the Project Site would not exceed the capacity of the existing or planned stormwater drainage systems during construction. However, should the City determine improvements to the stormwater drainage system are necessary during the normal permit review process, the Applicant would be responsible for the improvements, and such improvements would be conducted as part of the Project either on-site or off-site within the right-of-way, and as such, any related construction activities would be temporary and of short duration, and would not result in any significant environmental impacts given the disturbed nature of the right-of-way.

Therefore, the Project and the Flexibility Option would not substantially alter the existing drainage pattern of the site or area in a manner that would create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff, and the impact during construction would be less than significant. No mitigation measures would be required.

(b) Operation

The existing Project Site is approximately 100 percent impervious and stormwater sheet flows into off-site catch basins and is discharged to the public storm drain system without filtration. As detailed under Threshold c(ii), the Project would not result in an increase in the amount of impervious surface at the Project Site and would decrease the amount of stormwater runoff Imperial Street would receive by 1.41 cubic feet per second. However, the Project would increase the amount of stormwater runoff that Mateo Street would

receive by 1.39 cubic feet per second. Although the Project would increase the peak storm event flow rate into Mateo Street by 1.39 cubic feet per second, this increase is a negligible amount and the stormwater infrastructure in Mateo Street has sufficient capacity to accept the increased stormwater runoff.[31] Furthermore, the Project would not increase the total rate or volume of stormwater runoff from the Project Site overall; there would be an incremental decrease of 0.02 cubic feet per second in the total volumetric flow rate discharging from the Site as a whole. As such, the Project would not substantially reduce or increase the amount of surface water discharged into the existing infrastructure or any waterbody.

Furthermore, the Project proposes a mix of residential and commercial land uses, which does not represent the type of use that would otherwise degrade water quality (e.g., an industrial land use that could adversely affect water quality). In addition, the LID requirements for the Project would outline the stormwater treatment post-construction BMPs required to control pollutants associated with storm events up to the 85th percentile storm event, per the City's Stormwater Program. As detailed under Threshold a), with the incorporation of the required LID BMPs, operation of the Project would not result in discharges of pollution from the Project Site.

Therefore, the Project and the Flexibility Option would not create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff, and the impact during operation would be less than significant. No mitigation measures would be required.

(2) Mitigation Measures

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

[31] *KPFF, 676 Mateo Street Mixed-Use Project Technical Report: Water Resources, November 20, 2018, page 28.* ***Appendix G*** *of this Draft EIR.*

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?

Because the Flexibility Option would be located on the same Project Site with the same flooding susceptibility as the Project and would develop the same amount of impervious surfaces as the Project, the conclusions regarding the impact analysis and impact significance determination presented below for the Project would be the same under the Flexibility Option.

(1) Impact Analysis

According to the Federal Emergency Management Agency's (FEMA) Flood Insurance Rate Map, and as shown on the City's ZIMAS,[32] the Project Site is within Zone X – Other Areas, which is a designation for areas determined to be outside the 100-year flood hazard area.[33] As previously discussed, no streams or rivers are located on the Project Site and the Site is not located within any high-risk coastal areas or floodway. The Project does not propose any structures which would impede floodwater such as a dam or berm. **Accordingly, both construction and operation of the Project and the Flexibility Option would have a less than significant impact with respect to impeding or redirecting flood flows and no mitigation measures would be required.**

(2) Mitigation Measures

Under both the Project and the Flexibility Option, impacts related to impeding or redirecting flood flows 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 both the Project and the Flexibility Option, impacts related to impeding or redirecting resulting from alteration of the existing drainage pattern would be less than significant without mitigation.

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[32] *City of Los Angeles, Department of City Planning, Zone Information Map Access System (ZIMAS) accessed: August 7, 2019.*

[33] *Federal Emergency Management Agency, Flood Insurance Rate Map, Los Angeles County, California, FEMA Map Number 06037C1636F, effective September 26, 2008.*

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

Because the Flexibility Option would be located on the same Project Site with the same inundation susceptibility as the Project and would require and generate the same type and amount of pollutants during construction and operation as the Project, the conclusions regarding the impact analysis and impact significance determination presented below for the Project would be the same under the Flexibility Option.

(1) Impact Analysis

As previously discussed, the Project Site is within Zone X – Other Areas, which is a designation for areas determined to be outside the 100-year flood hazard area.[34,35] Additionally, the Project Site is approximately 14 miles from the Pacific Ocean and not within an area potentially impacted by a tsunami.[36] There are also no major water bodies in the vicinity of the Project Site that would put the Project Site at risk of inundation by seiche. The nearest levee is along the Los Angeles River, and is located approximately one-half mile east of the Project Site. The stretch of the Los Angeles River east of the Project Site is identified at LAR-A-21.[37] The LAR-A-21 stretch is not identified by the U.S. Army Corps of Engineers as needing improvements. Accordingly, failure of a levee along the LAR-A-21 is unlikely to put the Project Site at risk of flooding. However, the Los Angeles County Safety Element indicates that the Project Site is located within the Hansen Dam and Sepulveda Dam inundation area.[38] Inundation of the Project Site resulting from dam failure could release pollutants into surface water should flood waters encounter contaminants at the Project Site. However, the Project proposes a mix of residential and commercial land uses, which does not represent the type of use that would otherwise degrade water quality (e.g., an industrial land use that could adversely affect water quality). Anticipated and potential pollutants generated by the Project would be normal and expected for the proposed land uses and include sediment, nutrients, pesticides, metals, pathogens, and oil and grease. These materials would be properly stored and handled as to avoid spilling contents in an area that may encounter flood water. **Accordingly, impacts related to the Project's and the Flexibility Option's risk**

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[34] *Federal Emergency Management Agency, Flood Insurance Rate Map, Los Angeles County, California, FEMA Map Number 06037C1636F, effective September 26, 2008.*

[35] *City of Los Angeles, Department of City Planning, Zone Information Map Access System (ZIMAS) accessed: August 7, 2019.*

[36] *City of Los Angeles, Department of City Planning, Zone Information Map Access System (ZIMAS) accessed: August 7, 2019.*

[37] *KPFF, 676 Mateo Street Mixed-Use Project Technical Report: Water Resources, November 20, 2018, page 28.* ***Appendix G*** *of this Draft EIR.*

[38] *County of Los Angeles Department of Regional Planning, Los Angeles County General Plan Safety Element, December 1990.*

of pollutant release due to Project inundation would be less than significant and no mitigation measures are necessary.

(2) Mitigation Measures

Under both the Project and the Flexibility Option, impacts related to the release of pollutants during inundation would be less than significant; no mitigation would be required.

(3) Level of Significance After Mitigation

Under both the Project and the Flexibility Option, impacts related to the release of pollutants during inundation would be less than significant without mitigation.

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

Because the design, configuration, and operation of the Flexibility Option would be comparable to the Project and the Flexibility Option would be subject to the same regulatory requirements as the Project, the conclusions regarding the impact analysis and impact significance determination presented below for the Project would be the same under the Flexibility Option.

(1) Impact Analysis

(a) Water Quality Control Plans

As discussed in the regulatory setting above, water quality control plans applicable to the Project include the Basin Plan and the Master Plan. Adopted by LARWQCB, the Basin Plan designates beneficial uses for surface and groundwaters, sets narrative and numerical objectives that must be attained or maintained to protect the designated beneficial uses and conform to the state's anti-degradation policy, and describes implementation programs to protect all waters in the Los Angeles Region. In addition, the Basin Plan incorporates (by reference) all applicable State and Regional Board plans and policies and other pertinent water quality policies and regulations. The Master Plan was developed by the Bureau of Sanitation, Watershed Protection Division in collaboration with stakeholders with the primary goal of the Master Plan is to help meet water quality regulations. The Master Plan identifies and describes the various watersheds in the City, summarizes the water quality conditions of the City's waters, identifies known sources of pollutants, describes the governing regulations for water quality, describes the BMPs that are being implemented by the City, discusses existing TMDL Implementation Plans and Watershed Management Plans.

Construction and operation of the Project would involve activities that have the potential to conflict with the water quality goals in the Basin Plan and Master Plan through the spread of contaminants into surface or groundwater supplies. However, as previously detailed, construction of the Project would prevent the spread of contaminants into surface water through adherence to the U.S. Occupational Safety and Health Administration regulations for the handling and storing of hazardous materials, and the requirements of the General Construction Activity Stormwater Permit, including implementation of a SWPPP, and the MS4 Permit for the prevention of erosion. These regulations and practices effectively control the potential stormwater pollution to surface water during construction. Furthermore, the proposed mix of residential and commercial land uses do not represent the type of use that would have the ability to adversely affect water quality. Anticipated and potential pollutants generated by the Project would be addressed through the implementation of approved LID BMPs. While the development of new building facilities would slightly increase the use of on-site hazardous materials, as described above, compliance with all applicable existing regulations at the Project Site regarding the handling, storage, and potentially required cleanup of hazardous materials would prevent the Project from affecting or expanding any potential areas of contamination, increasing the level of contamination, or causing regulatory water quality standards at an existing production well to be violated. In addition, neither construction nor operation of the Project is expected to encounter groundwater and no groundwater extraction would be required.

(b) Sustainable Groundwater Management Plans

As discussed in the regulatory setting above, the Project Site overlies a basin which is not designated as critically overdrafted and as such, no GSA has been formed to develop a local GSP for its management as of yet. Therefore, there are no applicable sustainable groundwater management plans applicable to the Project. Furthermore, 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. 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. LADWP addresses water supply needs through the 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. As detailed in **Section IV.M.1**, the Project's water demand would be within the projections of the UWMP and 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. 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 not have the potential to impact the amount of groundwater recharge as the Project Site is impervious and does not currently provide recharge for the groundwater basin.

(c) Conclusion

As described above, the Project would adhere to the applicable regulations and requirements with regard to water quality and groundwater sustainability. **Therefore, the Project and the Flexibility Option would not conflict or obstruct implementation of a water quality control plan or a sustainable groundwater management plan and the impact would be less than significant. No mitigation measures would be required.**

(2) Mitigation Measures

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

4. Cumulative Impacts

Because the Flexibility Option would be located on the same Project Site and include the same BMPs as the Project and would be subject to the same site conditions and regulatory requirements, the conclusions regarding the cumulative impact analysis and impact significance determination presented below for the Project would be the same under the Flexibility Option.

a) Impact Analysis

(1) Surface Water

The geographic context for the cumulative impact analysis on surface water hydrology is the Los Angeles River Watershed. The Project in conjunction with forecasted growth in

the Los Angeles River Watershed could cumulatively increase stormwater runoff flows. However, as noted above, the Project would have no net impact on stormwater flows. In accordance with City requirements, the Project and Related Projects would be required to implement BMPs to manage stormwater runoff in accordance with LID guidelines. Furthermore, the City of Los Angeles Department of Public Works reviews projects on a case-by-case basis to ensure sufficient local and regional infrastructure is available to accommodate stormwater runoff. Similar to the Project, the Related Projects are located on sites that are fully developed and impervious. Any new development on the Related Project sites would need to implement LID BMPs to meet the City's requirements. Implementation of LID BMPs would, at a minimum, maintain existing runoff conditions.

With respect to water quality, future growth in the Los Angeles River Watershed would be subject to NPDES requirements relating to water quality for both construction and operation. In addition, since the Project Site and the Related Projects are located in a highly urbanized area, future land use changes or development are not likely to cause substantial changes in regional surface water quality. As noted above, the Project and the Related Projects would not have an adverse impact on water quality, and would improve the quality of on-site flows due to the introduction of new BMPs that would collect, treat, and discharge flows from the Project Site (which are not being treated under existing conditions). Also, it is anticipated that the Project and the Related Projects would be subject to LID requirements and implementation of measures to comply with total maximum daily loads. Increases in regional controls associated with other elements of the MS4 Permit would improve regional water quality over time. **Therefore, the Project's and the Flexibility Option's contribution to cumulative impacts to surface water during construction and operation would not be cumulatively considerable and cumulative impacts would be less than significant.**

(2) Groundwater

The geographic context for the cumulative impact analysis on groundwater level is the Central Subbasin. No water supply wells, spreading grounds, or injection wells are located within a one-mile radius of the Project Site.

Furthermore, as previously discussed, implementation of the Project would not result in a substantial increase in impervious surface area. Development of the Related Projects could result in changes in impervious surface area within their respective project sites. However, it is not expected that the Related Projects would increase or decrease impervious or pervious surfaces that might affect groundwater hydrology. This is due to the fact that the Related Projects are located on sites where reduction in groundwater recharge is not expected because they are fully developed and impervious. 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. Additionally, the development of the Related Projects would be subject to review and approval pursuant to all applicable regulatory requirements, including any required mitigation of potential groundwater hydrology impacts.

With respect to groundwater quality, future growth in the Central Subbasin would be subject to LARWQCB requirements relating to groundwater quality. The Project would not expand any potential areas of contamination, increasing the level of contamination, or cause regulatory water quality standard violations, as defined in the California Code of Regulations, Title 22, Division 4, Chapter 15 and the Safe Drinking Water Act. Similarly, the Related Projects, all of which are in the Central Subbasin would be required to comply with all applicable laws, rules and regulations related to groundwater quality.

Based on the above, the Project's and the Flexibility Option's contribution to cumulative impacts to groundwater during construction and operation would not be cumulatively considerable, and cumulative impacts would be less than significant.

b) Mitigation Measures

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

c) Level of Significance After Mitigation

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