IV. Environmental Impact Analysis

G. Hydrology and Water Quality

1. Introduction

This section analyzes the Project's potential impacts with regard to hydrology and water quality, including water quality standards, drainage flow, and associated erosion and/or flooding, and stormwater runoff. The analysis is based, in part, on the following reports provided in the indicated appendix of this Draft EIR:

- Hydrology and Water Quality Report (Hydrology Report) prepared for the Project by KPFF Consulting Engineers[1] (see Appendix H);
- Geotechnical Engineering Evaluation Report (Preliminary Geotechnical Report) prepared by Twining Consulting[2] (see Appendix F-1); and
- Phase I and Phase II Environmental Site Assessments (Phase I and II ESAs) prepared by Rincon Consultants, Inc.[3,4] (see Appendix G-1 and G-2).

2. Environmental Setting

a) Regulatory Framework

(1) Federal

(a) Clean Water Act

The Clean Water Act (CWA), formerly known as the Water Pollution Control Act, was first introduced in 1948, with major amendments in the 1960s, 1970s, and 1980s. The CWA authorizes federal, state, and local entities to cooperatively create comprehensive programs for eliminating or reducing the pollution of state waters and tributaries. Amendments to the CWA in 1972 deemed the discharge of pollutants into waters of the United States from any point source unlawful unless authorized by a United States Environmental Protection Agency (USEPA) National Pollutant Discharge Elimination

[1] KPFF Consulting Engineers, *Hydrology and Water Quality Report* (*Hydrology Report*), April 15, 2021. Provided in Appendix H of this Draft EIR.

[2] Twining Consulting, *Geotechnical Engineering Evaluation Report* (*Preliminary Geotechnical Report*), May 25, 2018. Provided in Appendix F-1 of this Draft EIR.

[3] Rincon Consultants, Inc., *Phase I Environmental Site Assessment* (*Phase I ESA*), September 6, 2016. Provided in Appendix G-1 of this Draft EIR.

[4] Rincon Consultants, Inc., *Phase II Environmental Site Assessment* (*Phase II ESA*), September 6, 2018. Provided in Appendix G-2 of this Draft EIR.

System (NPDES) permit. Although federally mandated, states generally administer the NPDES permit program.

Amendments to the CWA in 1987 required the USEPA to create specific requirements for discharges. In response to the 1987 amendments to the CWA, Phase I of the USEPA NPDES program required NPDES permits for: (1) Municipal Separate Storm Sewer Systems (MS4) generally serving, or located in, incorporated cities with 100,000 or more people (referred to as municipal permits); (2) eleven specific categories of industrial activity (including landfills); and (3) construction activity that disturbs five acres or more of land. As of March 2003, Phase II of the NPDES program extends the requirements for NPDES permits to numerous small MS4s, construction sites of one to five acres, and industrial facilities owned or operated by small MS4s, which were previously exempted from permitting.

In addition, the CWA requires states to adopt water quality standards for receiving water bodies and to have those standards approved by the USEPA. Water quality standards consist of designated beneficial uses of a particular receiving water body (e.g., wildlife habitat, agricultural supply, recreation, etc.), along with water quality criteria necessary to support those uses. Water quality criteria are either prescribed concentrations or levels of constituents, such as lead, suspended sediment, and fecal coliform bacteria, or narrative statements identifying maximum concentrations of various pollutants that would not interfere with the designated use.

When water quality compromises designated beneficial uses of a particular receiving water body, Section 303(d) of the CWA requires identifying and listing the water body as "impaired" and identifying Total Maximum Daily Loads (TMDLs) for the impairing pollutant(s). A TMDL is an estimate of the total load of pollutants from point, non-point, and natural sources that a water body may receive without exceeding applicable water quality standards (with a "factor of safety" included). Once established, TMDLs allocate the loads among current and future pollutant sources to the water body.

The CWA requires states to publish, every two years, an updated list of streams and lakes that are not meeting their designated uses because of excess pollutants (i.e., impaired water bodies). The list, known as the 303(d) list, summarizes violations of water quality standards. Once a TMDL is developed and adopted, the water quality violation is removed from the 303(d) list.

(b) Federal Antidegradation Policy

The Federal Antidegradation Policy requires states to develop statewide antidegradation policies and identify methods for implementing them.[5] Pursuant to the Code of Federal Regulations, state antidegradation 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

5 *Code of Federal Regulations*, Title 40, Section 131.12.

beneficial uses, unless the state finds that allowing lower water quality is necessary to accommodate economic and social development in the area; and (3) water quality in waters considered an outstanding national resource.

(c) Safe Drinking Water Act

The Safe Drinking Water Act (SDWA) is the main federal law that ensures the quality of Americans' drinking water. Under SDWA, the USEPA sets standards for drinking water quality and oversees the states, localities, and water suppliers who implement those standards. SDWA was originally passed by Congress in 1974 to protect public health by regulating the nation's public drinking water supply. The law was amended in 1986 and 1996 and requires actions to protect drinking water and its sources: rivers, lakes, reservoirs, springs, and groundwater wells.

(d) National Flood Insurance Program

The National Flood Insurance Act of 1968 and the Flood Disaster Protection Act of 1973 mandate the Federal Emergency Management Agency (FEMA) to evaluate flood hazards.[6] FEMA provides flood insurance rate maps (FIRMs) for local and regional planners to promote sound land use and development practices, by identifying potential flood areas based on the current conditions. To delineate a FIRM, FEMA conducts engineering studies referred to as flood insurance studies (FIS). Using information gathered in these studies, FEMA engineers and cartographers delineate special flood hazard areas (SFHA) on FIRMs.

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

(2) State

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

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

Under the CWC, the State is divided into nine Regional Water Quality Control Boards (RWQCBs), governing the implementation and enforcement of the CWC and the CWA.

6 *The National Flood Insurance Act of 1968*, as amended, and The Flood Disaster Protection Act of 1973, 42 U.S.C. 4001 et. seq., https://www.fema.gov/media-library/assets/documents/21010. Accessed September 2020.

7 State Water Resources Control Board, *Porter-Cologne Water Quality Control Act*, January 2019.

The Project Site is located within Region 4, also known as the Los Angeles Region. The RWQCBs develop and enforce water quality objectives and implement plans that will best protect California's waters, acknowledging areas of different climate, topography, geology, and hydrology. Each RWQCB is required to formulate and adopt a Water Quality Control Plan (Basin Plan) for its region. The 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. In California, the NPDES stormwater permitting program is administered by the SWRCB.

Section 13050 of the CWC, part of the Porter-Cologne Act, defines pollution, contamination, and nuisance. Pollution is defined as alteration of water quality such that it unreasonably affects the water's beneficial uses; contamination is defined as impairment of water quality to the degree that it creates a hazard to public health; and a nuisance is defined as anything that is injurious to health, offensive to the senses, an obstruction to property use, and which affects a considerable number of people.

(b) California Antidegradation Policy

The California Antidegradation Policy, otherwise known as the Statement of Policy with Respect to Maintaining High Quality Water in California, was adopted by the SWRCB in 1968.[8] Unlike the Federal Antidegradation Policy, the California Antidegradation Policy applies to all waters of the State, not just surface waters. The policy states that whenever the existing quality of a water body is better than the quality established in individual Basin Plans, such high quality shall be maintained and discharges to that water body shall not unreasonably affect present or anticipated beneficial use of such water resource.

(c) California Toxics Rule

In 2000, the USEPA promulgated the California Toxics Rule, which establishes water quality criteria for certain toxic substances to be applied to waters in the State.[9] 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, that are designated by the Los Angeles Regional Water Quality Control Board (LARWQCB) as having beneficial uses protective of aquatic life or human health.

(d) California Water Plan

The California Water Plan (Water Plan), as required by CWC Section 1005(a) and prepared by the California Department of Water Resources, is the state government's strategic plan for managing and developing water resources statewide for current and

8 State Water Resources Control Board, Resolution No. 68-16, 1968.

9 United States Environmental Protection Agency (USEPA), *Water Quality Standards: Establishment of Numeric Criteria for Priority Toxic Pollutants for the State of California* (*California Toxics Rule*), April 2000.

future generations and provides a framework for water managers, legislators, and the public to consider options and make decisions regarding California's water future. The Water Plan, updated every five years, presents basic data and information on 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 Water 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 updating the Water Plan is to meet CWC requirements, receive broad support among those participating in California's water planning, and serve as a useful document for the public, water planners, legislators, managers, and other decision-makers. The California Water Plan Update 2018 was released in June 2019.[10]

(e) Sustainable Groundwater Management Act of 2014

The Sustainable Groundwater Management Act of 2014 (SGMA) creates a framework for sustainable, local groundwater management in California. SGMA allows local agencies to customize groundwater sustainability plans to their regional economic and environmental needs. This act requires local regions to create a groundwater sustainability agency (GSA) and to adopt groundwater management plans for groundwater basins or subbasins that are designated as medium or high priority. High-priority and medium-priority basins or subbasins must adopt groundwater management plans by 2020 or 2022, depending upon whether the basin is in critical overdraft. The Project Site overlies the northeast portion of the Central Subbasin, occupies a large portion of the southeastern part of the Coastal Plain of the Los Angeles Basin. The Central Subbasin has not been identified as a critically overdrafted basin by SGMA and, as such, does not have a specific subbasin groundwater management plan.

(f) California Department of Water Resources Bulletin 74

The California Department of Water Resources Bulletin 74 sets the minimum standards for water wells and monitoring wells with the purpose of protecting California's groundwater quality. Section 19 within the Monitoring Well Standards (Bulletin 74-90) under Part III, Destruction of Monitoring Wells, provides the requirements for destroying monitoring wells and exploration holes.[11] As stated therein, the well must be investigated before it is destroyed to determine its condition and details of its construction. The wells shall be cleaned before destruction such that all undesirable materials are removed for disposal. Enforcing agencies shall be notified if pollutants or contaminants are known or suspected to be present in a well to be destroyed. The well destruction operations may then proceed only at the approval of the enforcing agency.

[10] California Department of Water Resources, *California Water Plan Update 2018*, June 2019.

[11] California Department of Water Resources, Part III. Destruction of Monitoring Wells, https://water.ca.gov/Programs/Groundwater-Management/Wells/Well-Standards/Combined-Well-Standards/Monitoring-Destruction. Accessed April 22, 2021.

(3) Regional

(a) Water Replenishment District of Southern California

The City of Los Angeles is included within the Water Replenishment District of Southern California (WRD). The WRD service area is categorized as a High Priority basin and pursuant to the SGMA must either: (a) form a groundwater sustainability agency (GSA) to prepare and submit a groundwater sustainability plan; or directly submit an Alternative Analysis in lieu of forming a GSA. The WRD, in conjunction with key stakeholders including the Los Angeles Department of Water and Power (LADWP), has prepared and submitted an Alternative Analysis that satisfies the requirements of the SGMA.[12] The Alternative Analysis demonstrates compliance with applicable portions of the CWC and provides adequate information to show that the applicable, underlying Central Subbasin has operated within its sustainable yield over a period of at least 10 years; and that the Alternative Analysis satisfies SGMA's objectives by promoting sustainable management of the groundwater in the Central Subbasin.

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

As required by CWC, 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). Specifically, the Basin Plan designates beneficial uses for surface water and groundwater, 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.[13]

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.

(c) Los Angeles River Watershed Master Plan

The Los Angeles River Watershed Master Plan recognizes the river as a resource of regional importance and that those resources must be protected and enhanced. The Los Angeles River Watershed Master Plan was adopted in 1996, and is intended to maintain the river as a resource that provides flood protection and opportunities for recreational

[12] Board of Directors of the Water Replenishment District of Southern California, Resolution No. 16-1048, December 8, 2016, https://sgma.water.ca.gov/portal/alternative/print/12. Accessed March 21, 2021.

[13] California Regional Water Quality Control Board, *Water Quality Control Plan: Los Angeles Region Basin Plan for the Coastal Watersheds of Los Angeles and Ventura Counties*, adopted June 13, 1994.

and environmental enhancement, improves the aesthetics of the region, enriches the quality of life for residents, and helps sustain the economy of the region.[14] Environmental goals of the Los Angeles River Watershed Master Plan are to preserve, enhance, and restore environmental resources in and along the river, including improving water quality and cleanliness of the river. Soil contamination on riverfront lands that have supported railroads and other industries is cited as an issue of concern.

(d) Los Angeles River Watershed Enhanced Watershed Management Program

The Los Angeles County MS4 Permit allows permittees the flexibility to develop Watershed Management Programs (WMPs) or Enhanced Watershed Management Programs (EWMPs) to implement the requirements of the MS4 permit on a watershed scale through customized strategies, control measures, and best management practices (BMPs). Participation in a WMP or EWMP is voluntary and allows a permittee to address the highest watershed priorities, including complying with the MS4 Permit requirements.[15] The City, with other agencies in the Los Angeles River Watershed, has developed an EWMP for the Los Angeles River Watershed. The EWMP identifies measures (e.g., discharge requirements; low impact development [LID], green streets, and regional BMPs; and stormwater infiltration/pollution reduction project) to achieve compliance with Los Angeles River TMDLs and other water quality mandates, while maximizing potential benefits of stormwater for local water supply. The LARWQCB approved the Los Angeles Watershed EWMP on April 20, 2016.

(e) County of Los Angeles Hydrology Manual

Per the City's Special Order No. 007-1299, issued on December 3, 1999, the City has adopted the Los Angeles County Department of Public Works' Hydrology Manual (Hydrology Manual) as its basis of design for storm drainage facilities. The Hydrology Manual requires that a storm drain conveyance system be designed for a 25-year storm event and that the combined capacity of a storm drain and street flow system accommodate flow from a 50-year storm event. Areas with sump conditions[16] are required to have a storm drain conveyance system capable of conveying flow from a 50-year storm event.[17] The County also limits the allowable discharge into existing storm drain facilities based on the 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 line, require review and approval by the Los Angeles County Flood Control District.

[14] City of Los Angeles, *The Los Angeles River Revitalization Master Plan*, April 2007, http://boe.lacity.org/lariverrmp/CommunityOutreach/masterplan_download.htm/. Accessed March 31, 2021.

[15] California Water Board, Los Angeles R4, http://www.waterboards.ca.gov/losangeles/water_issues/programs/stormwater/municipal/watershed_management/. Accessed May 17, 2020.

[16] A sump, or depression, is an area from which there is no surface flow outlet.

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

(f) NPDES Permit Program

The NPDES permit program was first established under authority of the CWA to control the discharge of pollutants from any point source into the waters of the U.S. As indicated above, in California, the NPDES stormwater permitting program is administered by the SWRCB through its nine RWQCBs.

SWRCB Order No. 2012-0006-DWQ, known as the Construction General Permit, was adopted on July 17, 2012. The Construction General Permit regulates construction activity, including clearing, grading, and excavation of areas one acre or more in size and prohibits the discharge of materials other than stormwater, authorized non-stormwater discharges, and all discharges that contain a hazardous substance, unless a separate NPDES permit has been issued for those discharges. This NPDES permit establishes a risk-based approach to stormwater control requirements for construction projects by identifying three project risk levels. The main objectives of the Construction General Permit are to:

1. Reduce erosion;
2. Minimize or eliminate sediment in stormwater discharges;
3. Prevent materials used at a construction site from contacting stormwater;
4. Implement 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.

(i) Stormwater Pollution Prevention Plan

California mandates requirements for all construction activities disturbing more than one acre of land to develop and implement Stormwater Pollution Prevention Plans (SWPPP). The SWPPP documents the selection and implementation of BMPs for a specific construction project, charging owners with stormwater quality management responsibilities. A construction site subject to the Construction General Permit must prepare and implement a SWPPP that meets the requirements of the Construction General Permit.[18,19]

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

[18] State Water Resources Control Board, National Pollutant Discharge Elimination System– Wastewater, http://www.swrcb.ca.gov/water_issues/programs/npdes/. Accessed March 20, 2018.

[19] United States Environmental Protection Agency, National Pollutant Discharge Elimination System, 2018, https://www.epa.gov/npdes. Accessed March 20, 2018.

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 – consist of management of the soil surface to 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 – consist of 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.

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

Dewatering operations are practices that discharge non-stormwater, such as ground water, that must be removed from a work location into the drainage system to proceed with construction. Discharges from dewatering operations can contain high levels of fine sediments, which if not properly treated, could lead to exceedance of the NPDES requirements. A NPDES permit for dewatering discharges was adopted by the LARWQCB on September 13, 2018 (Order No. R4-2018-0125, General NPDES Permit No. CAG994004). Similar to the Construction General Permit, to be authorized to discharge under this permit, the developer must submit a Notice of Intent (NOI) to

discharge groundwater generated from dewatering operations during construction in accordance with the requirements of this permit.[20]

(iii) Low Impact Development Plan

In accordance with Section 402(p) of the CWA, the municipal NPDES permit allows stormwater discharges, except under certain conditions, and requires controls to reduce pollutants in those discharges to the maximum extent practicable. Such controls include BMPs, as well as system, design, and engineering methods. A municipal NPDES permit has been issued to the County and 84 incorporated cities (referred to herein as co-permittees). The Los Angeles County Municipal NPDES Permit requires implementation of the Storm Water Quality Management Program prepared as part of the NPDES approval process. The municipal NPDES permit includes a separate MS4 permit, which applies to publicly-owned separate storm sewer systems, such as curbs, gutters and storm sewers that do not connect with a wastewater collection system or treatment plant.

Under the Los Angeles County Municipal NPDES Permit, permittees are required to implement a development planning program to address stormwater pollution. This program requires project applicants for certain types of projects to implement a LID Plan, except where the Standard Urban Stormwater Mitigation Plan [SUSMP] is proven applicable. The purpose of the LID is to reduce the discharge of pollutants in stormwater by outlining BMPs, which must be incorporated into the design of new development and redevelopment. These treatment control BMPs must be sufficiently designed and constructed to treat or filter the greater of an 85th percentile rain event or first 0.75 inch of stormwater runoff from a storm event.

(g) Stormwater Quality Management Program

In compliance with the Los Angeles County Municipal NPDES Permit, the co-permittees are required to implement a Stormwater Quality Management Program (SQMP) with the goal of accomplishing the requirements of the Los Angeles County Municipal NPDES Permit and reducing the amount of pollutants in stormwater runoff. The SQMP requires the County and the 84 incorporated cities to:

- Implement a public information and participation program to conduct outreach on storm water pollution;
- Control discharges at commercial/industrial facilities through tracking, inspecting, and ensuring compliance at facilities that are critical sources of pollutants;
- Implement a development planning program for specified development projects;
- Implement a program to control construction runoff from construction activity at all construction sites within the relevant jurisdictions;

[20] Los Angeles Regional Water Quality Control Board (LARWQCB), Order No. R4-2018-0125, General NPDES Permit No. CAG994004, Waste Discharge Requirements for Discharges of Groundwater from Construction and Project Dewatering to Surface Waters in Coastal Watersheds of Los Angeles and Ventura Counties, September 13, 2018.

- Implement a public agency activities program to minimize storm water pollution impacts from public agency activities; and
- Implement a program to document, track, and report illicit connections and discharges to the storm drain system.

The Los Angeles County Municipal NPDES Permit contains the following provisions for implementation of the SQMP by the co-permittees:

1. General Requirements:
   - Each permittee is required to implement the SQMP in order to comply with applicable stormwater program requirements.
   - The SQMP shall be implemented and each permittee shall implement additional controls so that discharge of pollutants is reduced.
2. BMP Implementation:
   - Permittees are required to implement the most effective combination of BMPs for stormwater/urban runoff pollution control. This should result in the reduction of storm water runoff.
3. Revision of the SQMP:
   - Permittees are required to revise the SQMP in order to comply with requirements of the RWQCB while complying with regional watershed requirements and/or waste load allocations for implementation of TMDLs for impaired waterbodies.
4. Designation and Responsibilities of the Principal Permittee:

   The County Flood Control is designated as the principal permittee who is responsible for:
   - Coordinating activities that comply with requirements outlined in the NPDES permit;
   - Coordinating activities among permittees;
   - Providing personnel and fiscal resources for necessary updates to the SQMP;
   - Providing technical support for committees required to implement the SQMP; and
   - Implementing the Countywide Monitoring Program required under the Los Angeles County Municipal NPDES Permit and assessing the results of the monitoring program.
5. Responsibilities of Co-Permittees:

   Each co-permittee is required to comply with the requirements of the SQMP as applicable to the discharges within its geographical boundaries. These requirements include:
   - Coordinating among internal departments to facilitate the implementation of the SQMP requirements in an efficient way;

- Participating in coordination with other internal agencies as necessary to successfully implement the requirements of the SQMP; and
- Preparing an annual budget summary of expenditures for the storm water management program by providing an estimated breakdown of expenditures for different areas of concern, including budget projections for the following year.

6. Watershed Management Committees (WMCs):
   - Each WMC shall be comprised of a voting representative from each permittee in the Watershed Management Area (WMA).
   - Each WMC is required to facilitate exchange of information between co-permittees, establish goals and deadlines for WMAs, prioritize pollution control measures, develop and update adequate information, and recommend appropriate revisions to the SQMP.
7. Legal Authority:

   Co-permittees are granted the legal authority to prohibit non-storm water discharges to the storm drain system including discharge to the MS4 from various development types.

(h) Los Angeles County MS4 Permit

USEPA regulations require that MS4 permittees implement a program to monitor and control pollutants being discharged to the municipal system from both industrial and commercial projects that contribute a substantial pollutant load to the MS4. The LARWQCB originally issued a Municipal Storm Water NPDES Permit (No. CAS004001) in December 2001, which requires new development and redevelopment projects to incorporate storm water mitigation measures. Also known as an MS4 Discharge Permit, the permit (Order No. R4-2012-0175-A01) was amended and updated by SWRCB Order WQ 2015-0075 on September 8, 2016. Under the Municipal Storm Water NPDES Permit, redevelopment is defined as any land-disturbing activity that results in the creation, addition, or replacement of 5,000 square feet or more of impervious surface area on an already developed site.

The City is a permittee under the Los Angeles County MS4 Permit and, therefore, has legal authority to enforce the terms of the MS4 permit within its jurisdiction. The Los Angeles County 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.

(4) Local

(a) Los Angeles Municipal Code

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

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 (Los Angeles Municipal Code [LAMC] Section 62.105). Under the B-permit

process, storm drain installation plans are subject to review and approval by City of Los Angeles Bureau of Engineering (BOE). Additionally, connections to the City's storm drain system from a property line to a catch basin or a storm drain pipe require a storm drain permit from BOE.

(ii) Sections 12.40 through 12.43, Landscape Ordinance (Ordinance No. 170,978)

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 delivery systems (irrigation) to landscapes. Section 12.42 provides various regulations, of which two are applicable to stormwater management. The Heat and Glare Reduction regulation states among its purposes the design of vehicular use areas that reduce stormwater runoff and increase groundwater recharge; and the Soil and Watershed Conservation regulation 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, Stormwater and Urban Runoff Pollution Control Ordinance (Ordinance No. 172,176)

In 1998, LAMC Section 64.70, the Stormwater and Urban Runoff Pollution Control Ordinance (Stormwater Ordinance), was added by Ordinance No. 172,176, and prohibits the discharge of unauthorized pollutants in the City. The Stormwater 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 this ordinance allows enforcement by the Department of Public Works, as well as the levy of fines for violations. The Stormwater 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

In 2000, LAMC Section 64.72, Stormwater Pollution Control Measures for Development Planning and Construction Activities, was added by Ordinance 173,494, and sets forth requirements for construction activities and facility operations of development and redevelopment projects to comply with the NPDES permit requirements.

(v) Section 91.7013 and 91.7014, Erosion Control and Drainage Devices

Earthwork activities, including grading, are governed by the Los Angeles Building Code, which is contained in LAMC, Chapter IX, Article 1. Specifically, LAMC Section 91.7013 includes regulations pertaining to erosion control and drainage devices, and Section 91.7014 includes general construction requirements, as well as requirements regarding flood and mudflow protection.

(vi) City of Los Angeles Low Impact Development (LID) Ordinance (No. 181,899 and 183,833)

In October 2011, the City adopted a Citywide LID Ordinance that amends the City's existing Stormwater Ordinance (LAMC Sections 64.70.01 and 64.72, discussed above) to expand the applicability of the existing SUSMP requirements by imposing rainwater LID strategies on projects that require building permits. The LID Ordinance became effective on May 12, 2012 and was updated in September 2015 (Ordinance No. 183,833).

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.[21]

The intent of LID standards is to:

- Require the use of LID practices in future developments and redevelopments to encourage the beneficial use of rainwater and urban runoff;
- Reduce stormwater/urban runoff while improving water quality;
- Promote rainwater harvesting;

[21] City of Los Angeles Department of Public Works, Bureau of Sanitation (LASAN), Watershed Protection Division, *Planning and Land Development Handbook for Low Impact Development (LID)*, Part B, 5th Edition, May 9, 2016.

- Reduce off-site runoff and provide increased groundwater recharge;
- Reduce erosion and hydrologic impacts downstream; and
- Enhance the recreational and aesthetic values in our communities.

The Citywide LID strategy addresses land development planning, as well as storm drain infrastructure. Toward this end, LID is implemented through BMPs that fall into four categories: site planning BMPs, landscape BMPs, building BMPs, and street and alley BMPs. While the LID Ordinance and 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 0.75 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 microorganisms 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, 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 reuse 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 reuse 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. 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 flowing into a stormwater conveyance system, fewer pollutants are transported through the conveyance system into local streams and the ocean. The on-site reuse of the stored water for non-potable

domestic purposes conserves City-supplied potable water and, where directed to unpaved surfaces, can recharge groundwater in local aquifers.

- Biofiltration BMPs are landscaped systems that capture and treat stormwater runoff through a variety of physical and biological treatment processes. Biofiltration systems 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 comes into contact. Biofiltration BMPs include vegetated swales, filter strips, planter boxes, high flow biotreatment units, bioinfiltration systems, and bioretention systems with underdrains. Biofiltration can provide multiple benefits, including pollutant removal, peak flow control, and low amounts of volume reduction through infiltration and evapotranspiration.

Per the City's 2016 LID Manual's Figure 3.3 and Section 4.1, the City's preferred LID improvement is on-site infiltration of stormwater since it allows for groundwater recharge and reduces the volume of stormwater entering municipal drains.[22] If project site conditions are not suitable for infiltration, the City requires on-site retention via stormwater capture and reuse. Should capture and reuse be deemed technically infeasible, high efficiency bio-filtration/bioretention systems should be utilized. Lastly, under the LID Ordinance (LAMC Section 64.72 C.6), as interpreted in the LID Manual, if no single approach listed in the LID Manual is feasible, then a combination of approaches may be used.[23]

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

The Water Quality Compliance Master Plan for Urban Runoff (Water Quality Compliance Master Plan) was developed by the City's Department of Public Works, Bureau of Sanitation (LASAN), Watershed Protection Division, in collaboration with stakeholders, in response to a 2007 City Council motion (Motion 07-0663) for the development of a water quality master plan addressing pollution from urban runoff within the City. The Water Quality Compliance 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

[22] City of Los Angeles Department of Public Works, LASAN, Watershed Protection Division, *Planning and Land Development Handbook for Low Impact Development (LID)*, Part B, 5th Edition, May 9, 2016.

[23] City of Los Angeles Department of Public Works, LASAN, Watershed Protection Division, *Planning and Land Development Handbook for Low Impact Development (LID)*, Part B, 5th Edition, May 9, 2016.

that are implemented within the Los Angeles region, particularly TMDL Implementation Plans and Watershed Management Plans in Los Angeles.

(c) City of Los Angeles Stormwater Program

The Watershed Protection Division of LASAN is responsible for stormwater pollution control throughout the City in compliance with the Los Angeles County MS4 Permit. The Watershed Protection Division administers the City's Stormwater Program, which has two major components: Pollution Abatement and Flood Control. The Watershed Protection Division published the two-part Development Best Management Practices Handbook that provides guidance to developers for compliance with the Los Angeles County MS4 Permit through the incorporation of water quality management into development planning. The Development Best Management Practices Handbook, Part A: Construction Activities (3rd edition), (September 2004) provides specific minimum BMPs for all construction activities.[24] The Planning and Land Development Handbook for LID, Part B: Planning Activities (5th edition, May 9, 2016) (LID Handbook) provides guidance to developers to ensure the post-construction operation of newly developed and redeveloped facilities comply with the Developing Planning Program regulations of the City's Stormwater Program.[25] The LID Handbook assists developers with the selection, design, and incorporation of stormwater source control and treatment control BMPs into project design plans and provides an overview of the City's plan review and permitting process.

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

Operations and maintenance requirements in the LID Handbook include the following:

- Frequent inspections of the infiltration facilities shall occur to ensure that surface ponding infiltrates into the subsurface completely within the design drawdown time following storms. If vector breeding is taking place at a site as a result of contained stormwater or inadequately maintained BMPs, the Greater Los Angeles County Vector Control District has the ability to fine site owners for violating the California Health and Safety Code (Section 2060 – 2067).
- Regular inspections shall take place to ensure that the pretreatment sediment removal BMP/forebay is working efficiently. Sediment buildup exceeding 50 percent of the forebay sediment storage capacity shall be removed.

[24] City of Los Angeles Department of Public Works, LASAN, *Development Best Management Practices Handbook*, Part A, Construction Activities, 3rd Edition, September 29, 2004.

[25] City of Los Angeles Department of Public Works, LASAN, Watershed Protection Division, *Planning and Land Development Handbook for Low Impact Development (LID)*, Part B, 5th Edition, May 9, 2016·

- The infiltration facility shall be maintained to prevent clogging. Maintenance activities include checking for debris/sediment accumulation and removal of such debris.
- Facility soil (if applicable) shall be maintained. Flow entrances, ponding areas, and surface overflow areas shall be inspected for erosion periodically. Soil and/or mulch shall be replaced as necessary to maintain the long-term design infiltration rate for the life of the project.
- Site vegetation shall be maintained as frequently as necessary to maintain the aesthetic appearance of the site as well as the filtration capabilities (where applicable). This includes the removal of fallen, dead, and/or invasive plants, watering as necessary, and the replanting and/or reseeding of vegetation for reestablishment as necessary.
- Pervious pavement areas that are damaged or clogged shall be replaced/repaired per manufacture's recommendation as needed.
- Follow all proprietary operation and maintenance requirements.

The provisions of the LID Handbook are implemented through a Covenant and Agreement (C&A) that must be submitted, along with the design plans showing the project's stormwater measures, during the plan review and approval process. The C&A must include, as an attachment, an Operation and Maintenance (O&M) Plan describing the BMP operation and maintenance procedures, employee training program and duties, operating schedule, maintenance frequency, routine service schedule, and other activities. The O&M Plan requires a maintenance log be kept that can be inspected by the City upon request.

b) Existing Conditions

(1) Surface Water Hydrology (Drainage)

(a) Regional

The Project Site is located within the Los Angeles River Watershed Reach 2 (from Carson to Figueroa Street) in the Los Angeles Basin. The watershed encompasses an area of approximately 834 square miles and is bounded, at its headwaters, by the Santa Monica, Santa Susana, and San Gabriel mountains to the north and west. The southern portion of the watershed captures runoff from urbanized areas surrounding downtown Los Angeles. Jurisdictions in the watershed include the City of Los Angeles (33 percent), 42 other cities (29 percent), and eight agencies (37 percent). The 55-mile long Los Angeles River originates in western San Fernando Valley and flows through the central portion of the City south to San Pedro Bay, ultimately discharging into San Pedro Bay near Long Beach. Most portions of the Los Angeles River are completely channelized for flood protection, including the portion adjacent to the Project Site, as are many of its tributaries, including Compton Creek, Rio Hondo, Arroyo Seco, and Tujunga Wash. The Los Angeles

River and its tributaries are fed by a complex network of underground storm drains and open-air flood control channels.[26]

(b) Local

Off-site underground storm drain facilities in the Project vicinity are shown in **Figure IV.G-1**, *Existing Site Drainage*. A 15-inch storm drain located along Mesquit Street between 6th Street and Jesse Street begins at the catch basin on the eastern half of Mesquit Street and conveys flows southward to Jesse Street. A storm drain inlet and three catch basins (one located on the eastern half of Mesquit Street and two located on the western half of Mesquit Street) intercept surface flows conveyed southward in Mesquit Street, which is discharged via a 12-inch lateral with a full-flow capacity of 3.56 cubic feet per second (cfs) into a 97-inch storm drain main with a full-flow capacity of 31.99 cfs within the 7th Street right-of-way, which in turn conveys flow eastward and discharges into the Los Angeles River. In addition, there is a 24-inch lateral on the southeast corner of the Project Site that is connected to the 97-inch storm drain main in 7th Street. Another catch basin is located on 7th Street at the northwestern corner of 7th Street and Mesquit Street. Within Jesse Street, there is a storm drain main 15 inches in diameter with a full-flow capacity of 4.93 cfs that conveys flows three blocks west to Mateo Street. The underground main pipes, laterals, and catch basins noted above are owned and maintained by the City of Los Angeles.

From the Project vicinity, the Los Angeles River flows generally east and south, ultimately discharging into the Pacific Ocean at San Pedro Bay.

(c) Project Site Overview

The Project Site currently contains warehouses, as well as loading docks and surface parking, and is largely impervious. The Project Site is relatively flat and slopes downward from north to south, an elevation differential of approximately three feet over the linear length of the Project Site (approximately 1,000 feet).

Figure IV.G-1 shows site-specific drainage conditions. Under existing conditions, the Project Site is divided into four drainage areas (Areas A, B, C, and D) and is described in further detail below.

Area A is the southernmost 2.74 acres of the Project Site that straddles and includes a short segment of Mesquit Street north of 7th Street, which is proposed to be vacated and incorporated into the Project Site. Area A drains via building roof drains and sheet flow to an existing grate inlet catch basin at the southern end of Mesquit Street, on the western side of the street. From this point, flows are discharged into the 97-inch storm drain in 7th Street, which discharges to the Los Angeles River.

[26] LA Stormwater, Los Angeles River Watershed, http://www.lastormwater.org/about-us/about-watersheds/los-angeles-river/. Accessed March 12, 2018.

Area B encompasses the 1.68-acre portion of the Project Site along the eastern boundary that abuts the Railway Properties. Area B drains via building roof drains and sheet flow east onto the unpaved Railway Properties and directly into the Los Angeles River. The northernmost 0.37-acre portion of Area B is unpaved; accordingly, Area B is considered 73 percent impervious.

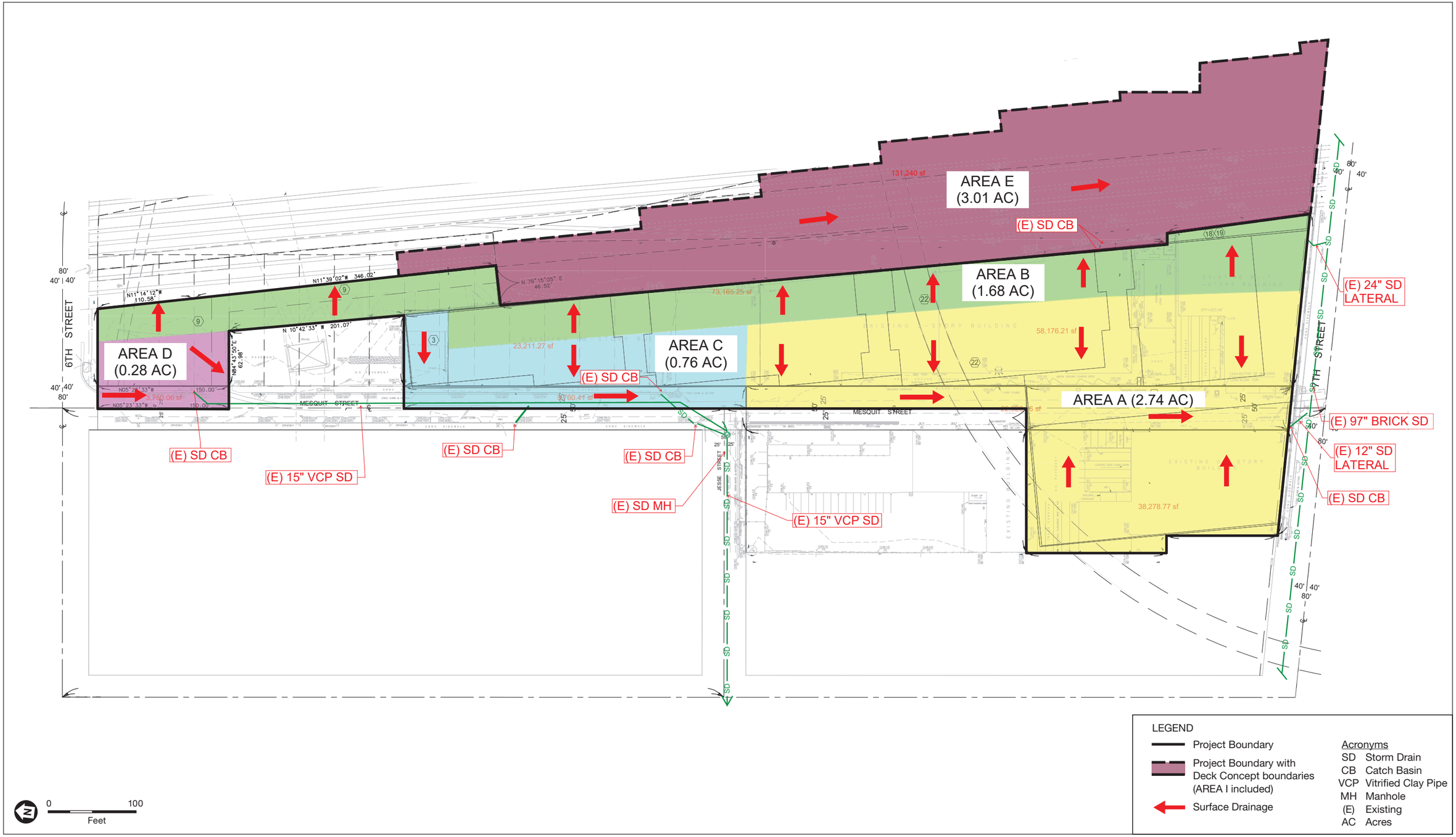
Area C encompasses the 0.76-acre area of the Project Site located on the east side of Mesquit Street between Jesse Street on the south and the LADWP Property on the north, as well as the eastern half-width portion of Mesquit Street, which is proposed to be vacated and incorporated into the Project Site. Area C generally drains via building roof drains and surface flow to grate inlet catch basins on the east side of Mesquit Street, north of Jesse Street. The catch basins discharge flows south to the storm drain line in Jesse Street. Flows are then conveyed westward to Mateo Street, southward to the 97-inch storm drain in 7th Street and discharged to the Los Angeles River.

Area D encompasses a partially unpaved 0.28-acre area located at the northerly end of the Project Site, as well as the eastern half-width portion of Mesquit Street proposed to be vacated and incorporated into the Project Site. Area D drains to the southwest via sheet flow into side inlet catch basin near the northern end of Mesquit Street on the eastern side of the street. These, in turn, discharge flows to the storm drain line in Jesse Street. As with drainage from Area C, flows are then conveyed westward to Mateo Street, southward to the 97-inch storm drain in 7th Street and discharged to the Los Angeles River. A portion of Area D is unpaved; accordingly, Area D is considered 69 percent impervious.

Table IV.G-1, *Existing Drainage Conditions*, shows the existing volumetric flow rates (measured in cfs) and volumes (measured in cubic feet) generated by a 50-year storm event[27] and a summary of existing imperviousness conditions for the 5.46-acre Project Site.[28] During a 50-year storm event, the 50-year rainfall depth at the Project Site is 5.9 inches. The existing runoff rate during a 50-year storm event, referred to as the [Q_{50}] value, on the 5.46-acre Project Site is 17.21 cfs. As shown in Table IV.G-1, the Project Site is currently at least 90.1 percent impervious, with only the northernmost unpaved areas having some level of perviousness. As the area is currently unpaved, the dirt would be conservatively considered pervious even if it is compacted. Even though the compacted soil may limit the rate of percolation, the analysis conservatively assumes that all of the unpaved area is pervious.

[27] A 50-year rainfall event has a one in 50 (two percent) chance of occurring in a given year.

[28] Due to rounding differences inherent in the calculation of on-site drainage areas, the acreage of the Project Site in this section (5.46 acres) is slightly different than that provided in Chapter II, Project Description, and other technical sections in the Draft EIR (5.45 acres). For the purposes of hydrology, the 5.46 acres is considered conservative as it provides a larger area available for flow and perviousness.



SOURCE: KPFF Consulting Engineers, Hydrology and Water Quality Report, 2021

670 Mesquit

Figure IV.G-1
Existing Site Drainage

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TABLE IV.G-1
EXISTING MINIMUM DRAINAGE CONDITIONS FOR PROJECT SITE

Drainage Area	Area (acres)	Imperviousness (%)	Q_{50} (cfs)	V_{50} (cf)
A	2.74	100	8.68	**52,378**
B	1.68	73	5.25	**25,509**
C	0.76	100	2.41	**14,528**
D	0.28	69	0.87	**4,088**
Total	**5.46a**	**90.1**	**17.21**	**96,503**

NOTE(S):

cf = cubic feet; cfs = cubic feet per second

[a] Due to rounding differences inherent in the calculation of on-site drainage areas, the acreage of the Project Site in this section (5.46 acres) is slightly different than that provided in Chapter II, *Project Description*, and other technical sections in the Draft EIR (5.45 acres). For the purposes of hydrology, the 5.46 acres is considered conservative as it provides a larger area available for flow and perviousness.

SOURCE(S): KPFF Consulting Engineers, Hydrology Report, October 28, 2020.

(d) Project with the Deck Concept Site

As previously stated, Areas A through D would encompass the 5.46-acre Project Site. As further described in Chapter II, *Project Description*, of the Draft EIR, the Project may include a Deck Concept (Project with the Deck Concept) that would involve construction of a 132,000 square foot Deck that would extend over a portion of the freight and passenger rail lines and rail yards (Railway Properties) east of the Project Site. Area E, which would be developed under the Project with the Deck Concept, would encompass a primarily unpaved 3.01-acre area located immediately east of the Project Site (i.e., off-site). Surface water flow is to the south and then into the Los Angeles River to the east.

Table IV.G-2, *Existing Drainage Conditions – Project Site and Railway Properties*, shows the existing volumetric flow rates and volumes generated by a 50-year storm event[29] and a summary of existing imperviousness conditions on the off-site 3.01-acre Railway Properties (Area E in Figure IV.G-1) adjacent to the Project Site on the east. As previously stated, the 5.46-acre area covered by Drainage Areas A-D would be 90.1 percent impervious. Because it is unpaved, the 3.01-acre Area E is considered just one percent impervious and 99 percent pervious, resulting in a Q_{50} value of 9.10. The existing runoff rate during a 50-year storm event across the Project Site and Railway Properties (under the Project with the Deck Concept) is 26.31 cfs.

[29] A 50-year rainfall event has a one in 50 (two percent) chance of occurring in a given year.

TABLE IV.G-2
EXISTING DRAINAGE CONDITIONS – PROJECT SITE AND RAILWAY PROPERTIES

Drainage Area	Area (acres)	Imperviousness (%)	Q_{50} (cfs)	Q_{50} (cfs)
E (Railway Properties)	3.01	1	9.10	14,145
A-D (Project Site)[a]	5.46	90.1	17.21	96,503
Total (Project Site + Railway Properties)	**8.47**	**58.4**	**26.31**	**110,648**

NOTE(S):
cfs = cubic feet per second
[a] Calculations for the Project Site are drawn from Table IV.G-1, above.
SOURCE(S): KPFF Consulting Engineers, *Hydrology Report*, October 28, 2020.

(e) Flooding and Inundation

The Project Site is not located within a Special Flood Hazard Area (a 100-year floodplain) or Moderate Flood Hazard Area (500-year floodplain) identified by the Federal Emergency Management Agency (FEMA) and published in the Flood Insurance Rate Maps (FIRM).[30]

(2) Surface Water Quality

(a) Regional

As stated above, the Project Site lies within the Los Angeles River Watershed Reach 2. Constituents of concern listed for the Los Angeles River Reach 2 under California's Clean Water Act Section 303(d) List include cadmium, copper, lead, selenium, zinc, *E. coli*, and trash.[31]

(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

[30] Federal Emergency Management Agency (FEMA), Flood Insurance Rate Map Panel# 06037C1636G, effective December 21, 2018, https://msc.fema.gov/portal/search?AddressQuery=670%20mesquit%2C%20los%20angeles%2C%20ca#searchresultsanchor. Accessed May 2020.

[31] United States Environmental Protection Agency, *Waterbody Quality Assessment Report: 2012 Waterbody Report for Los Angeles River Reach 2 (Carson to Figueroa Street)*, 2013, https://iaspub.epa.gov/waters10/attains_waterbody.control?p_au_id=CAR4051501019990202085021&p_cycle=2012&p_state=CA&p_report_type=;. Accessed March 20, 2018.

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 the Hydrology Report, site observations, and the fact that the existing site was developed prior to the enforcement of stormwater quality BMP design, implementation, and maintenance, the Project Site does not currently implement BMPs and has no means of treatment for stormwater runoff.[32]

(d) Project with the Deck Concept Site Overview

No structural BMPs are known to be implemented under existing conditions for the treatment of stormwater runoff that is discharged from the Railway Properties directly into the Los Angeles River.

(3) Groundwater Hydrology

(a) Regional

Groundwater use for domestic water supply is a major beneficial use of groundwater basins in the County. The City overlies the Los Angeles Coastal Plain Groundwater Basin. The Los Angeles Coastal Plain Groundwater Basin comprises the Hollywood, Santa Monica, Central, and West Coast Subbasins. Groundwater flow in the Los Angeles Coastal Plain Groundwater Basin is generally south-southwesterly and may be restricted by natural geological features. Replenishment of groundwater basins occurs mainly by percolation of precipitation throughout the region via permeable surfaces, spreading grounds, and groundwater migration from adjacent basins, as well as injection wells designed to pump freshwater along specific seawater barriers to prevent the intrusion of salt water.

(b) Local

Within the Basin, the Project Site specifically overlies the northeastern portion of the Central Subbasin (Subbasin), which occupies a large portion of the southeastern part of the Los Angeles Coastal Plain Groundwater Basin. The Central Subbasin is a subbasin of the Coastal Plain of Los Angeles Groundwater Basin, but it is commonly referred to as "Central Basin".

The Central Subbasin 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 southeastern boundary between the Central Subbasin and the Orange County Groundwater Basin roughly follows Coyote Creek, which is a regional drainage province boundary. The southwestern boundary is formed

[32] KPFF Consulting Engineers, *Hydrology Report*, April 15, 2021, p. 5.

by the Newport Inglewood fault system and the associated folded rocks of the Newport Inglewood uplift.[33]

Groundwater enters the Central Subbasin through surface and subsurface flow and by direct percolation of precipitation, stream flow, and applied water; and replenishes the aquifers in the forebay areas,[34] where permeable sediments are exposed at ground surface.[35] Natural replenishment of the subbasin's groundwater supply is largely from surface inflow through Whittier Narrows (and some underground flow) from the San Gabriel Valley. Artificial recharge in the Montebello Forebay at the Rio Hondo and San Gabriel River spreading grounds uses imported water purchased from Metropolitan Water District and recycled water from Whittier and San Jose Treatment Plants.[36]

The Central Basin Watermaster, which monitors monthly and annual groundwater pumping and water rights for the Central Subbasin, notes that precipitation over the Central Subbasin has relatively minimal direct influence on the replenishment of the groundwater in the Central Subbasin. This is a result of the low soil permeability that characterizes the primary water-producing aquifers throughout much of the Central Subbasin and largely impermeable surfaces (i.e., pavement and buildings) covering most of the forebay areas. Natural replenishment of the groundwater in the Central Subbasin occurs largely from surface flow that is captured and infiltrated, and underflow through Whittier Narrows from the San Gabriel Valley. Intentional replenishment of groundwater in the Central Subbasin is accomplished by capturing and spreading water at infiltration basins. The sources of this replenishment water include local storm runoff, local dry-weather urban runoff, imported water purchased from the Metropolitan Water District of Southern California, and recycled water purchased from Los Angeles County Sanitation Districts. All sources of water available for the Central Subbasin would total 85,746 acre-feet during the 2017-2018 water year.[37]

(c) Project Site

The existing Project Site is fully improved with five existing buildings, paved hardscape surfaces, and a 0.65-acre compacted unpaved area in the northern portion of the Project Site. Due to the predominantly impervious nature of the majority of the Project Site, there is no or minimal recharge potential under existing conditions. The discussion below is based upon a review of relevant previous investigations and on-site explorations conducted as part of the Phase I and II ESAs prepared for the Project Site.[38,39]

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33 California Department of Water Resources, *Coastal Plain of Los Angeles Groundwater Basin, Central Subbasin*, 2004.

34 Areas with free groundwater surface (i.e., the uppermost aquifer is unconfined, and percolating surface waters can reach the aquifer rapidly).

35 California Department of Water Resources, *Coastal Plain of Los Angeles Groundwater Basin*.

36 California Department of Water Resources, *Coastal Plain of Los Angeles Groundwater Basin*.

37 Central Basin Watermaster, *Watermaster Service in The Central Basin - Los Angeles County*, July 1, 2017–June 30, 2018, Table 15, November 2018.

38 Rincon Consultants, Inc., *Phase I ESA*, September 6, 2016.

39 Rincon Consultants, Inc., *Phase II ESA*, September 6, 2018.

As stated in the Preliminary Geotechnical Report, groundwater is conservatively assumed to be present between 57 and 61 feet bgs on the Project Site.[40] Despite the Project Site's proximity to the Los Angeles River, most portions of the river are completely channelized for flood protection, including the portion adjacent to the Project Site, as are many of its tributaries, including Compton Creek, Rio Hondo, Arroyo Seco, and Tujunga Wash. A complex network of underground storm drains and open-air flood control channels feeds the tributaries.[41]

As noted in the Phase I ESA, two groundwater wells were identified on the Project Site on the 1890 and 1894 Sanborn maps but are no longer shown on the more recent Sanborn maps.[42] A potential groundwater monitoring well was also identified in Mesquit Street, adjacent to the northern portion of the Project Site,[43] within an area currently under construction as a part of the Sixth Street Viaduct project. Based on plans prepared by the City, it appears that a groundwater monitoring well is no longer present in this area.[44]

(4) Groundwater Quality

(a) Regional

As stated above, the City overlies the Los Angeles Coastal Plain Groundwater Basin, which falls under the jurisdiction of LARWQCB. According to the LARWQCB's Basin Plan, objectives applying to all groundwaters of the region include bacteria, chemical constituents and radioactivity, mineral quality, nitrogen (nitrate, nitrite), and taste and odor.[45]

(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, Total Dissolved Solids (TDS), and nitrate.[46]

(c) Project Site

The existing Project Site is developed with existing one- to four-story freezer, cold storage, and dry storage warehouses and associated office space totaling approximately 205,393 square feet, as well as loading bays and surface parking; the adjacent Mesquit Street is fully paved. The northernmost 0.65-acre portion of the Project Site (i.e., a portion of Area B and Area D) is considered partially pervious since it is unpaved. Because of the partial perviousness of this portion of the Project Site, it is possible for surface water-

40 Twining Consulting, *Preliminary Geotechnical Report*, p. 8.
41 LA Stormwater website, Los Angeles River Watershed, http://www.lastormwater.org/about-us/about-watersheds/los-angeles-river/. Accessed October 22, 2018.
42 Rincon Consultants, Inc., *Phase I ESA*, September 6, 2016, p. 32.
43 Rincon Consultants, Inc., *Phase I ESA*, September 6, 2018, p. 32.
44 Based on plans for the Sixth Street Viaduct produced prior to the start of construction of the viaduct, the well is no longer shown in this area.
45 Los Angeles Regional Water Quality Control Board, *Basin Plan*, March 2013.
46 Los Angeles Regional Water Quality Control Board, *Basin Plan*.

borne contaminants to percolate into groundwater and affect groundwater quality. Compliance with all existing hazardous waste regulations reduces this potential. Nonetheless, groundwater quality may be impacted by past and existing activities at the Project Site.

Soil contamination from underground storage tanks also has the potential to impact groundwater. As discussed in Section IV.F, *Hazards and Hazardous Materials*, of this Draft EIR, the Project Site is not listed on the California Facility Inventory Database Underground Storage Tank (CA FID UST) database, and while it appears no USTs are currently operated on the Project Site, the Phase I ESA notes that two 150-gallon petroleum USTs were historically documented as being in the location of the 690 Mesquit Street building between the years 1890 and 1894. No documentation has been identified that confirms the removal of the USTs and associated piping.[47]

Further investigation of these USTs and associated piping was performed as part of the Phase II ESA. Total Petroleum Hydrocarbons (TPH) as diesel at concentrations above environmental screening levels (ESLs) and maximum soil screening levels (SSLs) was discovered on-site in five of the eight samples collected in the vicinity of the former USTs, down to a depth of 20 feet bgs. As previously stated, groundwater is conservatively assumed to be present between 57 and 61 feet bgs on the Project Site per the Preliminary Geotechnical Report. As the maximum depth of soil contamination with TPH as diesel in the area of the USTs and associated piping is unknown, the potential exists for contamination of groundwater below the Project Site. For further discussion of the soil contamination on the Project Site, see Section IV.F, *Hazards and Hazardous Materials*, of this Draft EIR.

(d) Project with the Deck Concept Site

The Railway Properties are considered pervious as they are unpaved, and therefore, it is possible for surface water-borne contaminants to percolate into groundwater and affect groundwater quality. Compliance with all existing hazardous waste regulations related to operation of the Railway Properties reduces this potential. As stated on Section IV.F, *Hazards and Hazardous Materials*, of this Draft EIR, railroad ties were historically treated with creosote, and track beds were historically treated with herbicides, such as oil and arsenic, for weed management. In addition, other hazardous materials from rail cars may also be present in the soils. The soil within the Railway Properties has not been tested and it is unknown if metals may be present in the soil. Therefore, the potential exists for contamination of groundwater below the Railway Properties. For further discussion of the contamination soil on the Railway Properties, see Section IV.F, *Hazards and Hazardous Materials*, of the Draft EIR.

[47] Rincon Consultants, Inc., *Phase I ESA*, September 6, 2016, p. 31.

(5) Inundation, Tsunami, and Seiche Hazard Areas

According to the City of Los Angeles General Plan Safety Element, Exhibit G: Inundation & Tsunami Hazard Areas, the Project Site is located in a potential dam inundation area.[48] The nearest dam to the Project Site is the Elysian Dam, located approximately 14 miles to the southwest.

With respect to tsunami hazards, the Project Site is located approximately 12 miles inland (northeast) from the Pacific Ocean, is not located in a City-designated tsunami hazard area.[49] Additionally, there is intervening development in all directions around the Project Site. Therefore, the Project Site is not at risk of tsunami inundation based on its proximity to the Pacific Ocean and being outside of a tsunami hazard area. Project with the Deck Concept Site Overview

The Railway Properties, similar to the Project Site, would be located in a potential dam inundation area.[50] The Railway Properties are not located in a City-designated tsunami hazard area.[51]

3. Project Impacts

a) Thresholds of Significance

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

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

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

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

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

48 City of Los Angeles Department of City Planning, *General Plan Safety Element*, Exhibit G, Inundation & Tsunami Hazard Areas, March 1994. Accessed on December 2016.
49 City of Los Angeles Department of City Planning, *General Plan Safety Element*, Exhibit G, Inundation & Tsunami Hazard Areas, March 1994. Accessed on December 2016.
50 City of Los Angeles Department of City Planning, *General Plan Safety Element*, Exhibit G, Inundation & Tsunami Hazard Areas, March 1994. Accessed on December 2016.
51 City of Los Angeles Department of City Planning, *General Plan Safety Element*, Exhibit G, Inundation & Tsunami Hazard Areas, March 1994. Accessed on December 2016.

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

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

iv. Impede or redirect flood flows

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

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

For this analysis, the Appendix G Thresholds are relied upon. The analysis utilizes factors and considerations identified in the City's 2006 L.A. CEQA Thresholds Guide, as appropriate, to assist in answering the Appendix G Threshold questions. The factors to evaluate hydrology and water quality impacts include whether the Project would:

(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;
- 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

- Result in discharges that would create pollution, contamination or nuisance as defined in Section 13050 of the CWC or would 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 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.

b) Methodology

The analysis in this section addresses potential Project impacts on surface water hydrology (drainage) and surface water quality as well as groundwater hydrology and water quality. The analysis is based, in part, on the following reports provided in the indicated appendices of this Draft EIR:

- Hydrology and Water Quality Report (Hydrology Report) prepared for the Project by KPFF Consulting Engineers[52] (see Appendix H)
- Geotechnical Engineering Evaluation Report (Preliminary Geotechnical Report) prepared by Twining Consulting[53] (see Appendix F-1)
- Phase I and Phase II Environmental Site Assessments (Phase I and Phase II ESAs) prepared by Rincon Consultants, Inc.[54,55] (see Appendix G-1 and G-2)

A summary of the analytical methodology for hydrology and surface water quality, as well as groundwater hydrology and groundwater quality, is provided below.

(1) Hydrology (Drainage)

The analysis of potential impacts to the existing hydrologic drainage system includes a calculation of existing (pre-Project) and post-Project runoff rates during a 50-year storm event. Potential impacts to the storm drain system for this Project were analyzed by comparing the calculated existing runoff rates to the calculated post-Project runoff rates to determine the Project's effect on drainage flows. The Project's proposed on-site stormwater treatment system is evaluated for consistency with applicable regulatory measures for reducing drainage impacts.

As discussed above, the City has adopted the County's Hydrology Manual as its basis of design for storm drainage facilities. The Hydrology Manual requires projects to have drainage facilities that meet the Urban Flood level of protection. The Urban Flood is runoff from a 25-year frequency design storm falling on a saturated watershed. A 25-year frequency design storm has a probability of 1/25 of being equaled or exceeded in any year. The 2006 L.A. CEQA Thresholds Guide, however, establishes the 50-year frequency design storm event as the threshold to analyze potential impacts on surface water hydrology as a result of development. To provide a more conservative analysis, this report analyzes the larger storm event threshold (i.e., the 50-year frequency design storm event).

The County Department of Public Works has developed a time of concentration calculator, Hydrocalc, to automate time of concentration calculations as well as the peak runoff rates and volumes using the MODRAT design criteria as outlined in the Hydrology Manual.

52 KPFF Consulting Engineers, *Hydrology Report*, April 15, 2021. Provided in Appendix H of this Draft EIR.
53 Twining Consulting, *Preliminary Geotechnical Report*, May 25, 2018. Provided in Appendix F of this Draft EIR.
54 Rincon Consultants, Inc., *Phase I ESA*, September 6, 2016. Provided in Appendix G-1 of this Draft EIR.
55 Rincon Consultants, Inc., *Phase II ESA*, September 6, 2018. Provided in Appendix G-2 of this Draft EIR.

Hydrocalc was used to calculate the storm water peak runoff flow rate for the Project conditions by evaluating individual subareas independent of all adjacent subareas.

As shown on Figure IV.G-1, the existing drainage area for the Project Site is subdivided into four drainage areas (A through D) to facilitate modeling runoff areas. As shown in **Figure IV.G-2**, *Proposed Site Drainage*, under post-Project conditions, the 5.46-acre Project Site would be divided into eight proposed Drainage Areas (A through H) to manage the drainage needs under the proposed Project, again to facilitate modeling. Proposed Drainage Areas A through E represent proposed Buildings 5, 4, 3, 2, and 1, respectively, each of which would collect precipitation and control runoff. Proposed Drainage Area F represents the proposed Northern Landscaped Area. Proposed Drainage Areas G and H represent the eastern half-width portions of Mesquit Street north and south of the existing LADWP Property, respectively, which are proposed to be vacated with approval of the Project and absorbed into the Project Site. Area I represents the additional area subject to development for the Deck if the Project with the Deck Concept is implemented.

(2) Water Quality

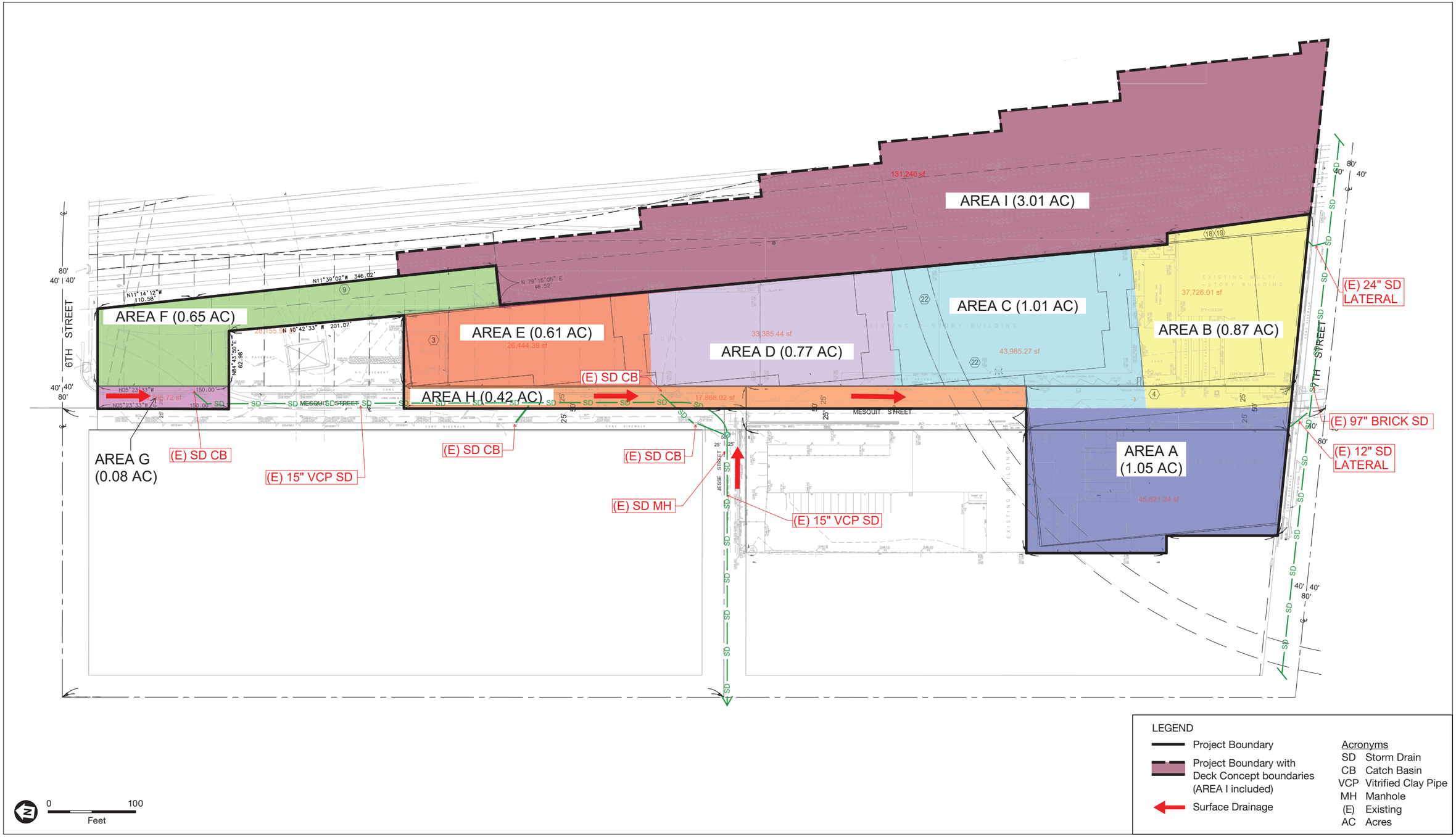
Water quality impacts were assessed by characterizing the types of pollutants and/or effects on water quality likely to be associated with temporary construction and long-term operation of the Project, Project design features that are intended to treat contaminants, and expected contaminant flows with Project implementation. Project consistency with relevant regulatory permits/requirements, including BMPs and applicable plans, is evaluated to demonstrate how compliance would reduce potential Project impacts.

Under Section 3.1.3 of the City's LID Manual, post-construction stormwater runoff from a new development must be, in order of desirability, infiltrated, captured and used, and/or treated through high efficiency on-site biofiltration/bioretention systems for at least the volume of water produced by the greater of the 85th percentile storm or the 0.75-inch storm event. In accordance with these requirements, the feasibility of the different potential BMPs outlined in the LID is evaluated in the analysis, and the required capacity of the identified preferred feasible BMP is calculated.

(3) Groundwater

Analysis of the Project impact on groundwater levels includes assessing the Project Site permeability, determining the rate, duration, location and quantity of extraction, dewatering, spreading, injection, or other activities, determining the projected reduction in groundwater resources and any existing wells in the vicinity (usually within a one-mile radius), and projecting the change in local or regional groundwater flow patterns.

Groundwater quality impacts and groundwater level impacts were assessed by identifying the types of pollutants and/or effects on water quality likely to be associated with construction and operation of the Project. The analysis includes a review of the existing levels, quality, direction of flow, and existing uses for the water within the Central Subbasin.



SOURCE: KPFF Consulting Engineers, Hydrology and Water Quality Report, 2021

670 Mesquit

Figure IV.G-2
Proposed Site Drainage

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(4) Water Quality and Sustainable Groundwater Management Plans

The evaluation of Project consistency with Water Quality and Sustainable Groundwater Management Plans is based on a summary of the preceding analyses of Project impacts on water quality and groundwater resources. The summary identifies the applicable plans, the regulatory mechanisms for meeting the standards in those plans and the Project characteristics that conform to those regulatory standards.

c) Project Design Features

No specific Project Design Features are proposed with regard to hydrology and water quality.

d) Analysis of Project Impacts

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

(1) Impact Analysis

(a) Construction Impacts

Construction of the Project would include mass excavation and grading. The excavation depth would range from approximatively 61 to 68 feet bgs for the lowest subterranean parking level. To accommodate elevator pits, maximum excavations at these isolated areas would range in depth from approximately 71 to 75 feet bgs.

Construction activities for the Project, such as earth moving, maintenance/operation of construction equipment, potential dewatering as described below, and handling/storage/disposal of materials, could contribute to pollutant loading in stormwater runoff. However, since the construction site would be greater than one acre, the Project would be required to obtain coverage under the NPDES Construction General Permit (Order No. 2009-0009-SWQ). In accordance with the requirements of the permit, the Project would require the preparation and implementation of a site-specific SWPPP that adheres to the California Stormwater Quality Association BMP Handbook. The SWPPP would specify BMPs to be used during construction. BMPs would include, but not be limited to, erosion control, sediment control, non-stormwater management, and materials management BMPs.

As previously stated, groundwater is conservatively assumed to be present between 57 and 61 feet bgs on the Project Site. Therefore, as Project construction would require grading and excavation activities from approximately 61 to 68 feet bgs for the lowest subterranean parking level and 71 to 75 feet bgs for isolated areas to accommodate elevator pits, it is expected that excavation in certain areas would encounter groundwater,

and, therefore, dewatering would be required. Dewatering operations are practices that discharge groundwater that must be removed from a work location into the storm drain system to proceed with construction. Discharges from dewatering operations can contain high levels of fine sediments, which, if not properly treated, could lead to exceedance of the NPDES requirements. Temporary pumps and filtration would be utilized in compliance with the NPDES permit. The temporary system would comply with all relevant NPDES requirements related to construction and discharges from dewatering operations. If dewatering is required, the treatment and disposal of the dewatered water would occur in accordance with the requirements of LARWQCB's Waste Discharge Requirements for Discharges of Groundwater from Construction and Project Dewatering to Surface Waters in Coastal Watersheds of Los Angeles and Ventura Counties.

In addition, the Applicant would be required to comply with the City's grading permit regulations set forth in LAMC, Chapter IX, Article 1, which include standard erosion control measures and inspections to reduce sedimentation and erosion (such measures would also be included in the construction SWPPP). Also, if construction should occur during the rainy season (October 1 to April 14), a wet weather erosion control plan (WWECP) would be prepared pursuant to the "Manual and Guideline for Temporary and Emergency Erosion Control," adopted by the City of Los Angeles Board of Public Works and incorporated into the City's Development Best Management Practices Handbook, Part A, Construction Activities, cited above, and be adopted into the facility SWPPP. As discussed above, BMPs for non-stormwater discharge management and materials management would be incorporated into the SWPPP. It is noted, however, that surface non-storm water runoff potential would be minimal, if it occurs at all.

During on-site grading and building construction, hazardous materials, such as fuels, paints, solvents, and concrete additives, could be used and would, therefore, require proper management and, in some cases, disposal. The management of any resultant hazardous wastes could increase the opportunity for hazardous materials releases into groundwater. 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. Implementation of the BMPs in the SWPPP in accordance with LARWQCB's discharge requirements would further ensure that any discharge of groundwater during construction would not impact groundwater quality.

As discussed above, two groundwater wells were identified on the Project Site on the 1890 and 1894 Sanborn maps but are no longer shown on the more recent Sanborn maps.[56] It is unknown if the two mapped groundwater wells on the Project Site have been properly abandoned and demolished. If unearthed during construction the groundwater wells would be properly abandoned and demolished, pursuant to DWR Bulletin 74,

[56] Rincon Consultants, Inc., *Phase I ESA*, September 6, 2016, p. 32.

Section 19, which requires groundwater wells to be investigated and cleaned before deconstruction such that all undesirable materials are removed for disposal. As such, the presence of the two mapped groundwater wells do not constitute a potential for contamination.

As discussed in Section IV.F, *Hazards and Hazardous Materials*, of this Draft EIR, contaminated soils could be encountered during construction, particularly during excavation activities, as it relates to the former on-site USTs and freezer/cold storage warehouse. The former USTs would be removed in accordance with California Health and Safety Code, Division 20, Chapter 6.7, and California Code of Regulations Title 23, Division 3, Chapter 16 and Chapter 18. Given that contaminated soils could be encountered during construction, Project construction activities could contaminate groundwater due to the proximity of the groundwater table to proposed excavation depths. As such, the Project construction activities could result in discharge that would cause: (1) pollution which would alter the quality of the water of the State to a degree which unreasonably affects beneficial uses of the waters; (2) contamination of the quality of the water 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 such, impacts from construction of the Project would be potentially significant, and mitigation measures would be required.**

(b) Operational Impacts

Stormwater discharge is generated by rainfall that runs off the land and impervious surfaces, such as paved streets, parking lots, and rooftops. Stormwater discharge may include pollutants of concern, which are expected to be generated by the Project, that could affect stormwater quality. During Project operation, pollutants of concern within runoff may include, but are not limited to, sediment, hydrocarbons, oil, grease, heavy metals, nutrients, herbicides, pesticides, fecal coliform bacteria, and trash. This runoff can flow directly into storm drains and continue untreated. Untreated stormwater runoff degrades water quality in surface waters and groundwater and can affect drinking water, human health, and plant and animal habitats.

The Project Site was developed prior to the enforcement of storm water quality BMP design, implementation, and maintenance. The Project Site currently does not implement BMPs and has no means for treatment of stormwater runoff.

As previously stated, the existing 5.46-acre Project Site is currently developed with buildings and pavement, with only an approximately 0.65-acre unpaved area in the northern portion of the Project Site considered pervious. The 5.46-acre Project Site is, therefore, considered approximately 90.1 percent impervious.

The Project would be required to implement SUSMP and LID BMPs throughout the operational life of the Project to comply with the Upper Los Angeles Watershed EWMP,

MS4 Permit, LID Ordinance, and other applicable plans and regulations to, among other things, help achieve the TMDLs for the Los Angeles River. As part of these requirements, the Project would prepare a SUSMP, which would outline the stormwater treatment measures or post-construction BMPs required to control pollutants of concern, such as the following standard source control and treatment control SUSMP BMPs:

- Promote evapotranspiration and infiltration, and the use of native and/or drought tolerant plants.
- Provide storm drain system stenciling and signage to discourage illegal dumping.
- Design material storage areas within enclosures or secondary containment structures (e.g., berms, dikes, curbs, etc.) to prevent leaks or spills of pollutants from entering the storm drain system.
- Properly design trash storage areas to prevent off-site transportation of trash.
- Provide evidence of ongoing BMP maintenance of any structural BMPs installed.
- Provide planter boxes for structural or treatment control BMPs.
- Design post-construction structural or treatment control BMPs to treat stormwater runoff. Stormwater treatment facilities and systems would be designed to meet the following requirements:
  - Design volumetric treatment control BMPs to capture the volume of runoff from a 0.75-inch storm event or an 85th percentile storm, whichever is greater, prior to discharging to the public storm drain system.
  - Design flow-based treatment control BMPs to the same standards as the volume-based control BMPs to limit the flow of runoff produced from the storm event to be equal to or at least 0.2 inch per hour.
  - Size and design treatment devices to meet the above requirements.

As set forth in the LID Manual, infiltration facilities must be sized to capture and infiltrate, at a minimum, the "first flush" of rainfall, defined as the volume of stormwater produced by an 85th percentile storm event or the first 0.75 inches of rainfall from a storm event of any size, whichever is greater. Based on these requirements, the maximum "design capture volume" needed to accommodate the 5.46-acre Project Site was determined to be approximately 16,424 cubic feet.[57] To achieve this, the Project proposes the installation of infiltration systems, such as dry wells and bioretention facilities,[58] which may be supplemented by underground storage pipes. The infiltration system and pipes

[57] KPFF Consulting Engineers, *Hydrology Report*, April 15, 2021, p. 13. Provided in Appendix H of this Draft EIR.

[58] Dry wells are excavated, bored, drilled, or driven shafts or holes whose depth is greater than its width. Drywells are designed to temporarily store and infiltrate runoff, primarily from rooftops or other impervious areas with low pollutant loading. A dry well may be either be filled with aggregate or a prefabricated storage chamber or pipe segment. Bioretention stormwater treatment facilities are landscaped shallow depressions that capture and filter stormwater runoff. They function as a soil and plant-based filtration device that removes pollutants through a variety of physical, biological, and chemical treatment processes. The facilities normally consist of a ponding area, mulch layer, planting soils, plantings, and, optionally, a subsurface gravel reservoir layer.

would temporarily store the captured stormwater until the stored volume is entirely infiltrated into the soil. (See Exhibit 2 in the Hydrology Report, provided in Appendix H of this Draft EIR, for illustrations of typical LID infiltration systems). Implementation of LID BMPs would substantially improve the quality of stormwater runoff discharged from the Project Site compared to existing conditions, under which no LID BMPs are implemented. LID BMPs would take advantage of the natural adsorption (physical, biological, and chemical binding), biodegradation, and filtration characteristics of vegetated swales and pervious surfaces and would allow for more opportunities to direct stormwater flows through the planting media prior to infiltrating into the ground below. The biofiltration system design would meet all applicable regulatory requirements for protection of water quality and the control of discharge from the Project Site.

The infiltration systems are proposed to be located in the Northern Landscaped Area of the Project Site and/or within the vacated portions of Mesquit Street proposed to be absorbed into the Project Site, either of which could accommodate the infrastructure for the required stormwater volume. The City requires stormwater infiltration to occur no closer than 10 feet above groundwater. Since groundwater is assumed to be at 57 to 61 feet bgs, infiltration systems are conceptually designed to infiltrate at 47 feet bgs, which would meet the City's groundwater setback requirement.[59] The basement levels of the Project would be designed to withstand hydrostatic forces such that no operational dewatering operations are needed. Therefore, there would be no impacts to groundwater quality from operational dewatering.[60]

In the event of rainfall amounts exceeding the 85th percentile storm event or first 0.75 inches of rain from any storm event, which could exceed the capacity of the on-site storage and infiltration system, runoff would flow into Mesquit Street or 7th Street and be intercepted by existing and proposed new catch basins or laterals located along Mesquit Street or 7th Street. These would connect to the underground storm mains running in Jesse Street and 7th Street and ultimately discharge to the Los Angeles River. Project Site runoff that drains to the Railway Properties under existing conditions would be rerouted to on-site LID BMP facilities or features that would result in an overall reduction of the volume of water leaving the Project Site or would discharge to Mesquit Street and catch basins therein.

Source control measures under the City's LID, including good housekeeping, removal of trash and maintenance of driveways and parking areas, and proper use and storage of pesticides, would reduce surface water quality impacts and would prevent pollutants from entering the local groundwater supply by percolation into landscaped areas with permeable surfaces. Any on-site use of hazardous materials to be used in association with operation of the Project, such as small quantities of potentially hazardous materials in the form of cleaning solvents, painting supplies, pesticides for landscaping, and pool maintenance, as well as fuel storage associated with an on-site generator, would be

[59] KPFF Consulting Engineers, *Hydrology Report*, April 15, 2021, p. 13.
[60] KPFF Consulting Engineers, *Hydrology Report*, April 15, 2021, p. 10.

contained, stored, and used in accordance with manufacturers' instructions and handled in compliance with applicable standards and regulations such that no hazardous materials be exposed to or otherwise would adversely impact groundwater quality. Therefore, the Project would not affect or expand any potential areas of contamination, increase the level of contamination, or cause regulatory water quality standards at an existing production well to be violated, as defined in the California Code of Regulations, Title 22, Division 4, Chapter 15 and the Safe Drinking Water Act.

As such, operation of the Project would not violate any water quality standards or waste discharge requirements. **Therefore, impacts resulting from Project operation would be less than significant with respect to surface water quality and groundwater quality.**

(c) Project with the Deck Concept

As stated in Chapter II, *Project Description*, the Applicant seeks to construct a 132,000-square foot Deck that extends over a portion of the off-site Railway Properties east of the Project Site. The Deck would be supported by vertical columns that would be located between the existing railroad tracks. The Deck would use pre-fabricated steel or pre-cast concrete members to speed construction and minimize effects on railroad operations. Excavation depths for the Project with the Deck Concept would be the same as proposed for the Project. The Project with the Deck Concept would similarly comply with NPDES requirements and City grading regulations such that construction of the Project with the Deck Concept would not result in discharges that would cause regulatory standards to be violated. Compliance with all applicable federal, state, and local requirements concerning handling, storage, and disposal of hazardous waste would also reduce the potential for construction of the Project with the Deck Concept to release contaminants into groundwater. However, similar to the Project, soil contamination from the former on-site USTs and freezer/cold storage warehouse could impact the water quality standards or waste discharge requirements of the groundwater that underlies the Project Site. **As such, impacts from construction of the Project with the Deck Concept would be potentially significant, and mitigation measures would be required.**

The 132,000-square foot Deck would cover a 3.01-acre area of the Railway Properties (Drainage Area I as shown in Figure IV.G-2). As previously stated, this area is currently considered 99 percent pervious; if the Project with the Deck Concept is constructed, it would render the 3.01-acre Drainage Area I 100 percent impervious.

No structural BMPs are known to be implemented under existing conditions for the treatment of stormwater runoff that is discharged from the Railway Properties directly into the Los Angeles River. Runoff under existing conditions that currently drains into the Railway Properties would be rerouted to discharge into Mesquit Street. As with the Project, some of the runoff discharged from the Deck under the Project with the Deck Concept, would be captured, stored and infiltrated into on-site soils by BMP facilities intended to treat the first flush of stormwater. The LID BMPs would substantially improve the quality of stormwater runoff discharged from the Project Site and the Railway Properties and

ultimately to the Los Angeles River as compared to existing conditions. Based on the same requirements as listed above under the Project, the maximum "design capture volume" for stormwater runoff, with the addition of the Area I runoff under the Project with the Deck Concept, would increase by 9,545 cubic feet for a total of approximately 25,969 cubic feet. This would be achieved through the installation of infiltration systems, such as dry wells and bioretention facilities, which may be supplemented by underground storage pipes, as under the Project. The remainder of runoff from the Deck would be directed into catch basins in Mesquit Street and from there discharged to the underground storm drain system and ultimately discharged to the Los Angeles River. **For the reasons stated above, impacts resulting from operation of the Project with the Deck Concept, if constructed, would not violate any water quality standards or waste discharge requirements. Impacts would be less than significant.**

(2) Mitigation Measures

Mitigation Measure HAZ-MM-2, as provided in Section IV.F, *Hazards and Hazardous Materials*, of this Draft EIR, would require the implementation of a Soil and Groundwater Management Plan and would serve to address impacts regarding water quality during construction of the Project and Project with the Deck Concept.

Impacts regarding water quality during operation of the Project and Project with the Deck Concept were determined to be less than significant without mitigation. Therefore, no mitigation measures are required.

(3) Level of Significance After Mitigation

In order to address potential violation of water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality as it relates to the contaminated soils from the former on-site USTs and freezer/cold storage warehouse, the Project and Project with Deck Concept would implement Mitigation Measure HAZ-MM-2, which includes implementation of a Soil and Groundwater Management Plan. The Soil and Groundwater Management Plan would specify how the construction contractor(s) will remove, handle, transport, and dispose of all excavated materials and dewatering effluent in a safe, appropriate, and lawful manner. With implementation of Mitigation Measure HAZ-MM-2 and with implementation of regulatory measures including implementation of a site-specific SWPPP, NPDES requirements, and the requirements of LARWQCB's Waste Discharge Requirements for Discharges of Groundwater from Construction and Project Dewatering to Surface Waters in Coastal Watersheds of Los Angeles and Ventura Counties, impacts would be reduced to a less-than-significant level.

Impacts regarding water quality during operation of the Project and Project with the Deck Concept were determined to be less than significant without mitigation. Therefore, no mitigation measures were required or included, and the impact level remains less than significant.

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

(1) Impact Analysis

(a) Construction Impacts

Construction activities for the Project would include demolition of the existing cold storage facilities and hardscape, mass excavation, and grading. The excavation depth would range from approximately 61 to 68 feet below ground surface (bgs) for the lowest subterranean parking level. To accommodate elevator pits, maximum excavations would range in depth from approximately 71 to 75 feet bgs in isolated areas.

Should groundwater be encountered during construction, temporary dewatering may be required. In this instance, temporary pumps and filtration would be used in compliance with all applicable regulations and requirements. Temporary dewatering would occur during the construction of the foundations and basement levels (approximately one year) until it is able to withstand hydrostatic forces. The system would then be turned off and the groundwater table would stabilize again after turning the system off. The dewatered water would be disposed to the public storm drainage system under the NDPES permit and requirements related to construction and discharges from dewatering operations. As the groundwater table would be allowed to stabilize and recharge during construction until the basement levels can withstand hydrostatic forces, dewatering during construction would not result in the substantial removal of groundwater that would reduce the local groundwater table. Further, dewatering would only occur temporarily during construction and would not continue post-construction.

As discussed above, two groundwater wells were identified on the Project Site on the 1890 and 1894 Sanborn maps but are no longer shown on the more recent Sanborn maps.[61] It is unknown if the two mapped groundwater wells on the Project Site have been properly abandoned and demolished. If unearthed during construction the groundwater wells would be properly abandoned and demolished, pursuant to DWR Bulletin 74, Section 19, which requires groundwater wells to be investigated and cleaned before deconstruction such that all undesirable materials are removed for disposal.

Based on the above, the Project would not impede sustainable groundwater management of the basin. **Therefore, Project construction would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the Project may impede sustainable groundwater management of the basin, and impacts would be less than significant.**

61 Rincon Consultants, Inc., *Phase I ESA*, September 6, 2016, p. 32.

(b) Operational Impacts

The Project Site is currently 90.1 percent impervious. Most of the stormwater that currently enters the Project Site flows into the local stormwater system. The Project Site currently has a minimal groundwater recharge potential because low levels of stormwater percolates into the soil due to prevalence of impervious surfaces. The Project does not propose groundwater withdrawal or permanent dewatering.[62]

With development of the Project, the amount of impervious area on the Project Site would increase to 94 percent (see Table IV.G-3 below) as hardscape would replace a portion of the currently unpaved area in the northern portion of the Project Site. The Project would include the installation of building roof drain downspouts, catch basins, and planter drains throughout the Project Site to collect roof and site runoff and direct stormwater away from buildings through a series of underground storm drain pipes. While there would be a 0.2 percent increase after Project implementation in peak flow rate from the Project Site compared to existing conditions, implementation of the proposed BMPs would result in an overall reduction of the volume of water leaving the Project Site.

The Project's subterranean parking would be below the redeveloped areas of the Project Site, resulting in no material change to the amount of stormwater that would percolate into the groundwater table compared to existing conditions. Therefore, pre- and post-Project infiltration volumes are considered effectively equivalent. Accordingly, there would not be a substantial reduction in groundwater recharge from current conditions, and the Project would not introduce activities that could impede sustainable groundwater management of the basin.

Furthermore, while two groundwater wells were identified on the Project Site on the 1890 and 1894 Sanborn maps, they are no longer shown on the more recent Sanborn maps. If these groundwater wells are unearthed during construction, the groundwater wells would be properly abandoned and demolished pursuant to DWR Bulletin 74, Section 19. The Project would not include new injection or supply wells and does not include the installation or operation of water wells or any extraction or recharge system that is in the vicinity of the coast, an area of known groundwater contamination or seawater intrusion, a municipal supply well or spreading ground facility. **Therefore, Project operation would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the Project may impede sustainable groundwater management of the basin, and impacts would be less than significant.**

(c) Project with the Deck Concept

Construction impacts associated with groundwater supplies and groundwater recharge would be essentially the same under the Project or the Project with the Deck Concept as both the Project and the Project with the Deck Concept would require temporary dewatering during construction should groundwater be encountered. Similar to the Project, the Project with the Deck Concept would ensure that dewatered groundwater is

62 KPFF Consulting Engineers, *Hydrology Report*, April 15, 2021, p. 10.

disposed under the NPDES permit and requirements. Dewatering during construction of the Project with the Deck Concept would not result in substantial removal of groundwater that would reduce the local groundwater table.

Operational impacts associated with groundwater supplies and groundwater recharge would be similar under the Project or the Project with the Deck Concept. The Project with the Deck Concept would not introduce activities that could impede sustainable groundwater management of the basin. The Project with the Deck Concept would not include new injection or supply wells and does not include the installation or operation of water wells or any extraction or recharge system that is in the vicinity of the coast, an area of known groundwater contamination or seawater intrusion, a municipal supply well or spreading ground facility. The Project with the Deck Concept, similar to the Project, would not propose groundwater withdrawal or permanent dewatering. With development of the Project with the Deck Concept, the amount of impervious area on the Project Site would increase to 96 percent (see Table IV.G-4 below) due to the increase in hardscape over existing conditions and the inclusion of the Deck over the Railway Properties. While any excess runoff, after implementation of the LID BMPs, that would have resulted in percolation into the Railway Properties under existing conditions would now be rerouted to Mesquit Street and the municipal storm drain system, any reduction in groundwater recharge due to the overall change in imperviousness would be minimal in the context of the regional groundwater basin.[63] Accordingly, there would not be a substantial reduction in groundwater recharge from current conditions, and the Project with the Deck Concept would not introduce activities that could impede sustainable groundwater management of the basin.

As such, the Project with the Deck Concept would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the Project may impede sustainable groundwater management of the basin, and impacts under the Project with Deck Concept would be less than significant.

(2) Mitigation Measures

Impacts regarding groundwater recharge were determined to be less than significant without mitigation. Therefore, no mitigation measures are required.

(3) Level of Significance After Mitigation

Impacts regarding groundwater recharge were determined to be less than significant without mitigation. Therefore, no mitigation measures were required or included, and the impact level remains less than significant.

63 KPFF Consulting Engineers, *Hydrology Report*, April 15, 2021, p. 19.

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

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

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

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

iv. Impede or redirect flood flows?

(1) Impact Analysis

(a) Construction Impacts

Construction activities, as described above, could temporarily alter existing drainage patterns and flows on the Project Site by exposing the underlying soils, modifying flow direction, and making the Project Site temporarily more permeable. Exposed and stockpiled 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 contribute to pollutant loading in runoff. Furthermore, an increase in pervious areas on the Project Site would temporarily decrease site runoff from the Project and potentially impact capacity of existing planned stormwater drainage systems.

Since the construction site would be greater than one acre, the Project would be required to obtain coverage under the NPDES Construction General Permit. In accordance with the requirements of this permit, the Project would implement a SWPPP that specifies BMPs and erosion control measures to be used during construction to manage runoff flows, prevent pollution, and avoid on- or off-site flooding. 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. Further, if the Project requires grading activities during the rainy season (October 1 through April 14), a WWECP would be prepared that would include BMPs to address potential erosion effects. Construction activities would be temporary, and flow directions and runoff volumes during construction would be controlled.

In addition, the Project would be required to comply with all applicable City grading permit regulations that require necessary measures, plans, and inspections to reduce sedimentation and erosion, control runoff from the construction site, and avoid on- and off-site flooding during the construction period. Lastly, construction activities and any associated hydrology (drainage) impacts would be temporary. Thus, through compliance

with all NPDES Construction General Permit requirements, including preparation of a 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. Similarly, adherence to standard compliance measurements in construction activities would avoid flooding, substantially increasing or decreasing the amount of surface water flow from the Project Site into a water body, or a permanent, adverse change to the movement of surface water.

There are no existing stream or river courses on the Project Site that would be altered by the Project. 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 and would, in general, infiltrate the temporarily exposed soil or evaporate.

Therefore, Project construction would not substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or substantially increase the rate or amount of surface runoff, in a manner which would: 1) result in substantial erosion or siltation on- or off-site; 2) result in flooding on- or off-site; or 3) exceed the capacity of existing stormwater drainage systems or provide substantial additional sources of polluted runoff. Impacts would be less than significant.

As discussed in Subsection VI.6, *Impacts Found Not to Be Significant*, of this Draft EIR and in the Initial Study (Appendix A-2) of the Draft EIR, the Project would not place housing within a 100-year flood plain as mapped on Federal Flood Hazard Boundary or Flood Insurance Rate Maps or other flood hazard delineation maps and would not impede or redirect flood flows. **Therefore, no impact would occur with respect to Threshold (c)(iv), and no further analysis is required.**

(b) Operational Impacts

As shown in **Table IV.G-3**, *Pre- and Post-Project Drainage Conditions*, the on-site impervious area within the 5.46-acre Project Site would increase slightly following Project implementation, from approximately 90.1 percent of the Project Site under existing conditions to approximately 94 percent since the proposed buildings and hardscape would replace a portion of the currently unpaved area in the northern portion of the Project Site. The only portion of the Project Site that would remain pervious is Drainage Area F, the Northern Landscaped Area.

As also indicated in Table IV.G-3, the 50-year peak flow rate of stormwater runoff from the 5.46-acre Project Site would increase slightly from approximately 17.21 cfs to 17.25 cfs (a 0.04 cfs increase or 0.2 percent) due to the increase (albeit small) in impervious surfaces compared to existing conditions.

TABLE IV.G-3
PRE- AND POST-PROJECT DRAINAGE CONDITIONS

	Existing Conditions			With Project Conditions					
Area (acres)	Imperviousness (%)	Q_{50} Flow Rate (cfs)[a]	V_{50} Volume of Flow (cf)[b]	Impervious ness (%)	Q_{50} Flow Rate (cfs)[a]	V_{50} Volume of Flow (cf)[b]	Incremental Q_{50} Increase (%)	Estimated Low Impact Development Treatment Volume (volumetric flow measured in cubic feet)	Decrease from Existing to Proposed Condition (%)
5.46c	90.1	17.21	96,503	94.0	17.25	99,641	0.2	16,424	13.8

NOTE(S):

cf = cubic feet; cfs = cubic feet per second

[a] Peak volumetric flow rate measured in cubic feet per second.
[b] Peak volume of flow measures in cubic feet.
[c] Note that overall Project Site drainage conditions are presented in this table rather than broken out as shown in Figures IV.G-1 and IV.G-2 as the individual drainage areas are not the same between the pre-and post-project drainage conditions and a comparison is not possible.

SOURCE(S): KPFF Consulting Engineers, Hydrology Report, April 15, 2021.

However, the overall volume of stormwater runoff from the Project Site discharged to the municipal storm drain system would decrease compared to existing conditions, as a result of the implementation of LID BMPs per City requirements, which would capture, store, and infiltrate the first flush of rainfall on site, more than offsetting the increase in impervious area and associated runoff. In addition, this would reduce the potential for on-site and off-site flooding.

Drainage patterns for much of the Project Site would generally be unchanged, except that runoff would no longer be discharged via sheet flows off-site to the east, and the first flush of stormwater falling on the Project Site would be directed to BMP facilities on-site. As previously discussed, the eastern edge of the Project Site (i.e., Area B under existing conditions as shown in Figure IV.G-1) currently drains eastward via sheet flow to the Railway Properties and directly to the Los Angeles River. This area would become part of Drainage Areas B, C, D, and E (as shown in Figure IV.G-2). The first 0.75 inch of stormwater (i.e., the first flush) collected on the Project Site, including the eastern edge, up to approximately 16,424 cubic feet, would be captured, stored, and infiltrated by LID-compliant BMP facilities into on-site soils instead of being discharged off-site. Stormwater in excess of the volume captured by on-site LID BMP facilities would be discharged to Mesquit Street and conveyed to the off-site municipal storm drain system into the Los Angeles River, as under existing conditions.

As discussed under Threshold (a), compliance with LID requirements would ensure stormwater treatment with post-construction BMPs that are required to control pollutants associated with the first flush of rainfall from an 85th percentile storm event or the first 0.75 inch of rainfall from any storm event. As also discussed under Threshold (a), as part of the SUSMP required to manage post-construction stormwater runoff, the Project would include the installation of building roof drain downspouts, catch basins, and planter drains throughout the Project Site to collect roof and site runoff and direct stormwater away from buildings through a series of underground storm drain pipes. The pipes would direct first flush storm water through BMPs and then to the on-site infiltration wells. Stormwater collected after the first flush would be directed through pipes to the storm water infrastructure in 7th Street.

Required on-site drainage infrastructure would be designed in accordance with the California Building Code requiring grading and drainage away from buildings, and the City's Mechanical Plan Check requirements for on-site utilities, and would safely convey stormwater from the Project Site to the municipal storm drain system upon approval by the City's Department of Public Works. This on-site stormwater conveyance system would serve to prevent flooding on the Project Site. In addition, with implementation of the proposed LID BMPs, the volume of water leaving the Project Site would be further reduced compared to existing conditions.

Accordingly, despite the increased peak flow rate upon implementation of the Project, implementation of the proposed LID BMPs would reduce the volume of stormwater runoff discharged from the Project Site and would improve the quality of stormwater runoff

leaving the Project Site. Furthermore, the Project Site would be approximately 94 percent impervious, leaving little opportunity for erosion or siltation. In addition, the on-site stormwater conveyance system, together with the LID BMPs that would capture and treat the first flush of rainfall, would serve to prevent on-site and off-site flooding on the Project Site and would limit runoff discharged from the Project Site to the municipal stormwater infrastructure during a larger storm event. Furthermore, no new off-site storm drainage infrastructure is anticipated based on the on-site improvements. As the first flush typically holds most of the pollutants and would be retained and infiltrated on-site, no substantial additional sources of polluted runoff would contribute to the runoff water.

Therefore, Project operation would not substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in 1) substantial erosion or siltation on- or off-site, 2) result in flooding on- or off-site; or 3) exceed the capacity of existing stormwater drainage systems or provide substantial additional sources of polluted runoff and impacts would be less than significant.

As discussed in Subsection VI.6, *Impacts Found Not to Be Significant*, of this Draft EIR and in the Initial Study (Appendix A) of the Draft EIR, the Project would not place housing within a 100-year flood plain as mapped on federal Flood Hazard Boundary or Flood Insurance Rate Maps or other flood hazard delineation maps and would not impede or redirect flood flows. **Therefore, no impact would occur with respect to Threshold (c)(iv), and no further analysis is required.**

(c) Project with the Deck Concept

(i) Construction

Construction of the Project with the Deck Concept would excavate to the same depths as under the Project. During construction-related ground disturbing activities, the pervious area on the Project Site and the Railway Properties would temporarily increase, which would decrease off-site runoff from the Project Site and the Railway Properties.

While the construction activities could temporarily alter existing drainage patterns and flows, the Project with the Deck Concept would be, similar to the Project, required to obtain coverage under the NPDES Construction General Permit and to implement a SWPPP that specifies BMPs and erosion control measures to be used during construction to manage runoff flows and prevent pollution. If the Project with the Deck Concept were to require grading activities during the rainy season, a WWECP would also be prepared to include BMPs to address potential erosion effects. Construction activities would be temporary, and flow directions and runoff volumes during construction would be controlled. In addition, the Project with the Deck Concept would be required to comply with all applicable City grading permit regulations that require necessary measures, plans, and inspections to control runoff from the construction site and avoid on- and off-site flooding during the construction period. Lastly, construction activities and any associated hydrology (drainage) impacts would be temporary.

Additionally, construction of the Project with the Deck Concept would not alter existing stream or river courses on the Project Site and the Railway Properties. Water would be used during the temporary construction phases of the Project with the Deck Concept (e.g., for dust suppression). However, this water would be mechanically and precisely applied and would, in general, infiltrate the temporarily exposed soil or evaporate.

Through compliance with all NPDES Construction General Permit requirements, including preparation of a SWPPP, implementation of BMPs, and compliance with applicable City grading regulations, the Project with the Deck Concept would not substantially alter the Project Site and Railway Properties drainage patterns, including through the alteration of the course of a stream or river or substantially increase the rate or amount of surface runoff, in a manner that would result in (1) substantial erosion or siltation on- or off-site, (2) result in flooding on- or off-site; or (3) exceed the capacity of existing stormwater drainage systems or provide substantial additional sources of polluted runoff. Impacts would be less than significant.

(ii) Operation

During operation of the Project with the Deck Concept, as shown in **Table IV.G-4**, *Pre- and Post-Project Drainage Conditions Under Project with the Deck Concept*, the impermeability of the 8.47-acre area encompassing both the Project Site and the portion of the Railway Properties that could be covered by the Deck would increase from approximately 58.4 percent (see Table IV.G-2) under existing conditions to approximately 96.2 percent since the Deck would cover the permeable Railway Properties, and the proposed buildings and hardscape would replace a portion of the currently unpaved area in the northern portion of the Project Site.

As also indicated in Table IV.G-4, the 50-year peak flow rate of stormwater runoff from the 8.47-acre area encompassing the 5.46-acre Project Site (without the Railway Properties) plus the 3.01-acre area (Railway Properties) covered by the Deck would increase slightly from an estimated 26.31 cfs to 26.79 cfs (a 0.48 cfs or 1.8 percent increase), due to the increase in impervious area resulting from construction of the impervious Deck. The 3.01-acre off-site area proposed to be covered by the Deck is considered 99 percent pervious under existing conditions with any runoff sheet flows going directly to the Los Angeles River.

As with the Project, an on-site stormwater conveyance system, together with the LID BMPs, would be installed to capture and treat the first flush of rainfall. As previously discussed under Subsection 2.b)(1)(b), *Existing Conditions – Local*, the full-flow capacities in Mesquit Street and Jesse Street are 3.56 cfs and 4.93 cfs compared to the full-flow capacity of 31.99 cfs in 7th Street.

TABLE IV.G-4
PRE- AND POST-PROJECT DRAINAGE CONDITIONS PROJECT WITH THE DECK CONCEPT

	Existing Conditions			With Project Conditions					
Area (acres)	Imperviousness (%)	Q_{50} Flow Rate (cfs)[a]	V_{50} Volume of Flow (cf)[b]	Imperviousness (%)	Q_{50} Flow Rate (cfs)[a]	V_{50} Volume of Flow (cf)[b]	Incremental Q_{50} Increase (%)	Estimated Low Impact Development Treatment Volume (volumetric flow measured in cubic feet)	Increase from Existing to Proposed Condition (%)
8.47	58.4	26.31	110,648	96.2	26.79	157,180	1.8	25,969	18.6

NOTE(S):

cfs = cubic feet per second

[a] Peak volumetric flow rate measured in cubic feet per second.

SOURCE(S): KPFF Consulting Engineers, Hydrology Report, April 15, 2021.

Under the Project with the Deck Concept, the peak flow volume for runoff would increase as compared to existing conditions. The proposed BMP facilities would capture and store the first flush as required for LID compliance. The remaining runoff not captured by the BMP facilities would be discharged from the Deck to the municipal storm drain system in Mesquit Street, Jesse Street, and 7th Street. This runoff would overflow to the curb face or into existing and/or proposed catch basins or laterals located along Mesquit Street or 7th Street. These would connect to the underground storm mains running in Jesse Street or 7th Street and ultimately discharge to the Los Angeles River. While the Project with the Deck Concept would increase impervious surfaces on the Project Site, which would alter drainage patterns, approximately 96 percent of the Project Site under the Project with Deck Concept would be impervious, leaving little opportunity for erosion or siltation. However, as shown in Table IV.G-4, it is estimated that the 50-year 24-hour flow volume discharging from the Project Site and the Railway Properties would increase by up to 18.6 percent; subsequently, the increase of the 50-year 24-hour flow volume could substantially alter the existing drainage pattern of the Project Site in a manner which could substantially increase the rate or amount of surface runoff and result in flooding.

However, in accordance with standard City practice, detailed drainage construction plans completed during the construction document development phase, with hydrology and hydraulics calculations informed by final architectural, landscaping, plumbing, geotechnical and structural considerations, as well as BOE design requirements and the prevailing building code at the time of plan check, would be submitted for BOE reviewed and approval as part of LAMC Section 62.105, Class B permit. In the event this assessment identifies potential for exceedance of the capacity of the municipal stormwater drainage system, upgrades to the system would be required, which could include an expanded on-site LID system, or reconstruction and upgrades to the existing catch basins in Mesquit Street, the 15-inch storm main in Jesse Street, and the 24-inch storm lateral on 7th Street. Through compliance with BOE requirements during the plan check approval process, any potential for the rate or amount of surface runoff to result in flooding, would be reduced such that impacts under the Project with the Deck Concept, would be less than significant.

Therefore, operation of the Project with the Deck Concept would not substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or substantially increase the rate or amount of surface runoff, in a manner which would result in (1) substantial erosion or siltation on- or off-site, (2) result in flooding on- or off-site; or (3) exceed the capacity of existing stormwater drainage and impacts would be less than significant.

As discussed in Subsection VI.6, *Impacts Found Not to Be Significant*, of this Draft EIR and in the Initial Study (Appendix A-2) of the Draft EIR, the Project with the Deck Concept would not place housing within a 100-year flood plain as mapped on Federal Flood Hazard Boundary or Flood Insurance Rate Maps or other flood hazard delineation maps

and would not impede or redirect flood flows. **Therefore, no impact would occur with respect to Threshold (c)(iv), and no further analysis is required.**

(2) Mitigation Measures

Project impacts on existing drainage patterns that would result in substantial erosion or siltation and flooding on- or off-site, increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite, create or contribute to the exceedance of the existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff, or impede or redirect flood flows were determined to be less than significant without mitigation. Therefore, no mitigation measures are required.

(3) Level of Significance After Mitigation

Impacts on existing drainage patterns that would result in substantial erosion or siltation and flooding on- or off-site, increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite, create or contribute to the exceedance of the existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff, or impede or redirect flood flows were determined to be less than significant. Therefore, no mitigation measures were required or included, and the impact level remains less than significant.

Threshold (d): Would the Project risk release of pollutants due to project inundation by flooding, tsunami, or seiche?

As discussed in Chapter VI.6, *Impacts Found Not to Be Significant*, of this Draft EIR, and in the Initial Study (Appendix A-2), Project Site is located in an area of relatively flat development and there is no potential for inundation from a seiche or mudflow. Furthermore, as stated above, the Project Site is located approximately 12 miles inland (northeast) from the Pacific Ocean, is not located in a City-designated tsunami hazard area. Thus, the Project would not expose people or structures to inundation by seiche, tsunami, or mudflow. No impact would occur, and no further analysis of this topic is required.

With respect to the Project with the Deck Concept, the Railway Properties is located adjacent to the Project Site. Thus, impacts associated with release of pollutants due to inundation by flooding, tsunami, or seiche would be the same under the Project with the Deck Concept and the conclusions regarding impact significance presented above also apply to the Project with the Deck Concept. **As such, no impacts associated with release of pollutants due to project inundation by flooding, tsunami, or seiche under the Project with the Deck Concept would occur.**

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

(1) Impact Analysis

As discussed in Subsection IV.G.2.a, Regulatory Framework, and elaborated upon in the subsequent impact analyses, the Project falls within the jurisdiction of water quality plans with related regulations and permitting requirements that assure that development projects are in compliance with clean water policies. Most notably, the Project falls under the jurisdiction of the LARWQCB (Region 4) Basin Plan for the Coastal Watersheds of Los Angeles and Ventura Counties and the Los Angeles River Watershed EWMP. The LARWQCB is also given authority to issue waste discharge requirements, enforce actions against stormwater discharge violators, and monitor water quality. In California, the NPDES stormwater permitting program is administered by the SWRCB, and the County of Los Angeles and the City are two of the co-permittees under the Los Angeles County NPDES MS4 Permit and, as such, are required to implement development planning guidance and control measures regarding water quality impacts from new development.

The Los Angeles County MS4 Permit contains provisions for implementation and enforcement of the SQMP and includes a LID Plan that designates BMPs that must be used by projects to address water infiltration, filtering, treatment and peak-flow discharge. The City supports the requirements of the Los Angeles County MS4 Permit through the City's LID Handbook, which provides guidance to developers of newly developed projects for compliance with regulatory standards. The Project is also within the jurisdiction of the Water Quality Compliance Master Plan for Urban Runoff, which was developed by the City's Department of Public Works and includes within its provisions the description of BMPs required by the City for stormwater quality management.

The Project would incorporate an on-site drainage system that would meet regulatory requirements of the applicable plans for the protection of water resources. The Project would install building roof drain downspouts, catch basins, and planter drains to collect roof and site runoff and direct stormwater away from buildings via a series of underground storm drain pipes.

The Project's potential impacts regarding water quality are evaluated under Threshold (a) above. As indicated in that analysis, the existing Project Site was developed prior to the enforcement of storm water quality BMP design, implementation, and maintenance. The existing Project Site currently does not implement BMPs and has no means for treatment of stormwater runoff. Therefore, with implementation of the LID BMPs, the Project would substantially improve the quality of stormwater runoff discharged from the Project Site. With the implementation of the Project's on-site drainage system, the Project would have less-than-significant impacts on both surface and groundwater quality during operation. However, during construction, as discussed under Threshold (a), above, contaminated soils could be encountered during construction, particularly during excavation activities, as it relates to the former on-site USTs and freezer/cold storage warehouse. Given the

contaminated soils that could be encountered during construction and the proximity of the groundwater table to proposed excavation depths, Project construction activities could result in a potentially significant impact requiring mitigation.

The Project's potential impacts regarding groundwater supplies and groundwater recharge are evaluated under Threshold (b) above. As indicated, the Project would have a less-than-significant impact. As further indicated in those analyses, with Project implementation, the stormwater runoff quality would be improved as compared to existing conditions.

Therefore, in conjunction with the implementation of necessary BMPs to support the applicable plans, the Project would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan during operation of the Project. However, as contaminated soils could impact the groundwater that underlies the Project Site, construction of the Project may conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan and impacts would be potentially significant.

(a) Project with the Deck Concept

Impacts associated with conflicting with or obstructing implementation of a water quality control plan or sustainable ground water management plan would be essentially the same under the Project with the Deck Concept as both the Project and the Project with the Deck Concept would implement the same necessary BMPs to support the applicable plans. Similar to the Project, the Project with the Deck Concept would implement LID BMPs to improve the quality of stormwater runoff discharged from the Project Site and the Railway Properties substantially as compared to existing conditions. In addition, construction of the Project with the Deck Concept would also encounter contaminated soils related to the former on-site USTs and freezer/cold storage warehouse. Thus, the conclusions regarding impact significance presented above are the same and apply to the Project and the Project with the Deck Concept. **As such, operation of the Project with the Deck Concept would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan, and impacts would be less than significant. However, as contaminated soils could impact the groundwater that underlies the Project Site, construction of the Project with the Deck Concept may conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan and impacts would be potentially significant.**

(2) Mitigation Measures

Mitigation Measure HAZ-MM-2, as provided in Section IV.F, *Hazards and Hazardous Materials*, of this Draft EIR, would require the implementation of a Soil and Groundwater Management Plan and would serve to address potential impacts during construction

associated with conflicting or obstructing implementation of a water quality control plan or sustainable groundwater management plan.

Impacts regarding conflicts with or obstructing the implementation of a water quality control plan or sustainable groundwater management plan were determined to be less than significant without mitigation during operation. Therefore, no mitigation measures are required.

(3) Level of Significance After Mitigation

In order to address potentially significant impacts regarding conflicting with or obstructing the implementation of a water quality control plan or sustainable groundwater management plan during construction of the Project and Project with Deck Concept, Mitigation Measure HAZ-MM-2 would be implemented, which includes implementation of a Soil and Groundwater Management Plan. The Soil and Groundwater Management Plan would specify how the construction contractor(s) will remove, handle, transport, and dispose of all excavated materials and dewatering effluent in a safe, appropriate, and lawful manner. With implementation of Mitigation Measure HAZ-MM-2, impacts would be reduced to a less-than-significant level.

Impacts regarding conflicts with or obstructing the implementation of a water quality control plan or sustainable groundwater management plan were determined to be less than significant without mitigation during operation.

e) Cumulative Impacts

(1) Impact Analysis

As identified in Chapter III, *Environmental Setting*, of this Draft EIR, there are 141 related projects in the Project vicinity. As with the Project, the related projects are located within the highly urbanized area of the City and the surrounding vicinity, which include mostly hard-surface project sites. Accordingly, the potential for the related projects to generate a substantial amount of new impermeable surfaces is limited. The related projects would also be subject to the same regulatory requirements as the Project, including, where applicable, the NPDES/Waste Discharge Requirements permits discussed above and the City's LID Ordinance, which would require the related projects to capture and manage their stormwater in accordance with City's LID Guidelines.

All related projects that anticipate new construction have the potential to contribute to pollutant loading during construction and operation, which could potentially result in cumulative impacts to water quality. However, as with the Project, all new construction would be subject to NPDES Waste Discharge Requirements permits for both construction and, where applicable, dewatering activities. Each related project greater than one acre in size would be required to develop a SWPPP for construction and grading activities. In addition, all new construction plans would be evaluated individually to determine the appropriate BMPs and treatment measures to minimize the related projects impacts to

water quality. Operation of the related projects would also be subject to applicable LID requirements, including implementation of operational BMPs to address the quality of water runoff from surfaces, such as driveways, parking lots, and parking structures. Pursuant to the City's LID Ordinance, related projects would be required to implement LID BMPs through one or more of the City's preferred improvements, including on-site infiltration, capture and reuse, or biofiltration/biotreatment BMPs, to the maximum extent feasible. As described above, the Project would implement LID BMPs in addition to source control and treatment control BMPs, consistent with applicable regulatory requirements. In addition, the Project would implement Mitigation Measure HAZ-MM-2, which would address water quality impacts during construction of the Project. As such, Project impacts on surface water and groundwater quality would be less than significant. With compliance to existing applicable regulations, such as the City's LID Ordinance requirements, and implementation of project specific mitigation in order to reduce water quality impacts, if required, the related projects would also be unlikely to cause or increase surface or groundwater contamination. In cases where the related projects would require dewatering during excavation, groundwater dewatering, treatment and disposal would be conducted in accordance with the LARWQCB's Waste Discharge Requirements for Discharges of Groundwater from Construction and Project Dewatering to Surface Waters in Coastal Watersheds of Los Angeles and Ventura Counties. Compliance with these regulations would ensure less-than-significant effects on surface water, as well as groundwater quality. **Therefore, with adherence to applicable regulations and with implementation of Mitigation Measure HAZ-MM-2, the Project's impacts would not be cumulatively considerable and cumulative impacts on water quality would be less than significant.**

Furthermore, as demonstrated above, through compliance with applicable regulatory requirements via site-specific drainage systems and storm water management and BMPs, and in light of Project implementation of Mitigation Measure HAZ-MM-2, the Project in combination with related projects would not substantially conflict with or obstruct implementation of a water quality control plan. Also, as discussed above, given the urbanized nature of the Arts District and surrounding area, the potential for the related projects to generate a substantial amount of new impermeable surfaces and thereby affecting the groundwater table is limited. None of the related projects are known to include significant quantities of permanent, ongoing groundwater withdrawal, but some would include infiltration as a means of LID compliance, where feasible and possible. **Accordingly, with these considerations, cumulative impacts on conflicts with or obstructing implementation of a water quality control plan or sustainable groundwater management plan would be less than significant.**

LASAN would also review each future development project on a case-by-case basis to ensure that sufficient local and regional drainage capacity is available to accommodate the project's stormwater runoff. Accordingly, the related projects are not anticipated to result in significant cumulative impacts with respect to hydrology and drainage quantities/patterns. Moreover, as shown above, the Project would not significantly alter or increase stormwater flows from the Project Site or alter drainage patterns in the area.

As such, cumulative impacts on hydrology and drainage patterns would be less than significant.

In summary, cumulative impacts associated with hydrology and water quality would be less than significant.

(a) Project with the Deck Concept

Cumulative impacts associated with hydrology and water quality would be similar under the Project or the Project with the Deck Concept. While the Project with the Deck Concept would result in an increased amount of stormwater runoff compared to the Project, BOE review and approval of detailed drainage plans during the standard required permit process would ensure that it would not result in an exceedance of the capacity of existing or planned stormwater drainage systems and impacts would be less-than–significant. Although the Project with the Deck Concept would increase the 50-year flow volume, the Project with the Deck Concept would improve current conditions by capturing and treating the 85th percentile storm, and thus improving the quality of the stormwater discharged to the public infrastructure. Thus, impacts to hydrology and water quality from the implementation of the Project with the Deck Concept would not be cumulatively considerable.

Furthermore, during the design and plan check process, related projects would also be required to be reviewed by BOE to assess their potential to cause an exceedance of the capacity of existing or planned tributary municipal stormwater drainage systems. Similar to the Project with the Deck Concept, required BOE review and approval of drainage plans during the permit process, would ensure the capacity of drainage systems would not be exceeded, and as such the potential impacts of each related project would be less-than-significant. **As such, cumulative impacts associated with hydrology and water quality under the Project with the Deck Concept would be less than significant.**

(2) Mitigation Measures

Cumulative impacts regarding hydrology and water quality were determined to be less than significant. Therefore, no mitigation measures are required.

(3) Level of Significance after Mitigation

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