IV. Environmental Impact Analysis

H. Hydrology and Water Quality

1. Introduction

This section describes the hydrologic and water quality setting of the Project Site and vicinity, identifies associated regulatory requirements, and evaluates potential impacts related to implementation of the proposed Project. The information and analysis in this section is based, in part, on the Water Supply Assessment completed by Los Angeles Department of Water and Power (LADWP) (Appendix G-1 of this Draft Environmental Impact Report [EIR]).[1]

2. Environmental Setting

a) Regulatory Framework

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

- Clean Water Act
- Federal Antidegradation Policy
- Porter-Cologne Water Quality Act
- California Antidegradation Policy
- California Toxics Rule
- Basin Planning
- National Pollution Discharge Elimination System (NPDES) and Waste Discharge Requirements (WDR) Permits
- Construction General Permit (SWRCB Order 2009-0009-DWQ, as amended)

[1] Los Angeles Department of Water and Power (LADWP), Water Supply Assessment for the Kaiser Permanente Los Angeles Medical Center Project, November 2018.

- WDRs for the Discharge of Groundwater from Construction and Project Dewatering to Surface Waters in the Coastal Watersheds of Los Angeles and Ventura Counties (Los Angeles RWQCB Order No. R4-2018-0125)
- California Water Plan
- Ballona Creek Watershed Management Plan
- Municipal Stormwater Permit (Los Angeles RWQCB Order No. R4-2012-0175-A01, as amended)
- Low Impact Development (LID) Ordinance
- Los Angeles Municipal Code
- City Water Quality Compliance Master Plan for Urban Runoff
- Los Angeles County Hydrology Manual

(1) Federal

(a) Clean Water Act

The Clean Water Act (CWA),[2] as amended by the Water Quality Act of 1987, is the major piece of federal legislation governing water quality. The objective of the CWA is "to restore and maintain the chemical, physical, and biological integrity of the Nation's waters." Key sections of the CWA are as follows:

- Sections 303 and 304 provide water quality standards, criteria, and guidelines. Under Section 303(d) of the CWA, the State of California is required to develop a list of impaired water bodies that do not meet water quality standards and objectives and establish Total Maximum Daily Loads (TMDLs) for each pollutant or water quality stressor.

[2] 33 USC 1251 et seq.

- Section 402 establishes the National Pollutant Discharge Elimination System (NPDES), a permitting system for the discharge of any pollutant (except for dredged or fill material) into "waters of the United States."[3] This permit program is administered by the California State Water Resources Control Board (SWRCB) and the nine Regional Water Quality Control Boards (RWQCBs), which each have programs that implement individual and general permits related to construction activities, municipal stormwater discharges, and various kinds of non-stormwater discharges.

Numerous agencies have responsibilities for administration and enforcement of the CWA. At the federal level this includes the U.S. Environmental Protection Agency (EPA) and the U.S. Army Corps of Engineers. At the State level, with the exception of tribal lands, the California Environmental Protection Agency and its sub-agencies, including the SWRCB, have been delegated primary responsibility for administering and enforcing the CWA in California.

(b) Federal Antidegradation Policy

The Federal Antidegradation Policy[4] requires states to develop statewide antidegradation policies and identify methods for implementing them. Pursuant to the Code of Federal Regulations (CFR), 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 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.

[3] "Waters of the United States" is defined under 40 CFR 230.3(s) as 1. All waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide; 2. All interstate waters including interstate wetlands; 3. All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation or destruction of which could affect interstate or foreign commerce including any such waters: i. which are or could be used by interstate or foreign travelers for recreational or other purposes, or ii. From which fish or shellfish are or could be taken and sold in interstate or foreign commerce, or iii. Which are used or could be used for industrial purposes by industries in interstate commerce; 4. All impoundments of waters otherwise defined as waters of the United States under this definition; 5. Tributaries of waters identified in paragraphs 1 through 4 of this section; 6. The territorial sea; or; 7. Wetlands adjacent to waters (other than waters that are themselves wetlands) identified in paragraphs 1 through 6 of this section.

[4] 40 CFR 131.12.

(2) State

(a) Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act, codified at California Water Code Section 13000 et seq., (Porter-Cologne Act) is the primary water quality control law for the State of California. Whereas the CWA applies to all waters of the United States, the Porter-Cologne Act applies to "waters of the State,"[5] which includes isolated wetlands and groundwater in addition to federal waters. The SWRCB and the nine RWQCBs implement the Porter-Cologne Act. In addition to other regulatory responsibilities, the RWQCBs have the authority to conduct, order, and oversee investigation and cleanup where discharges or threatened discharges of waste to waters of the State could cause pollution or nuisance, including impacts to public health and the environment.

The Porter-Cologne Act requires a "Report of Waste Discharge" for any discharge of waste (liquid, solid, or otherwise) to land or surface waters that may impair a beneficial use of surface or groundwater of the State. California Water Code Section 13260(a) requires that any person discharging waste or proposing to discharge waste, other than to a community sewer system that could affect the quality of the waters of the State, to file a Report of Waste Discharge with the applicable RWQCB. For discharges directly to surface water (waters of the United States), an NPDES permit is required, which is issued under both State and federal law; for other types of discharges, such as waste discharges to land (e.g., spoils disposal and storage), erosion from soil disturbance, or discharges to waters of the State (such as groundwater and isolated wetlands), Waste Discharge Requirements (WDRs) are required and are issued exclusively under state law pursuant to the WDR Program. WDRs typically require many of the same best management practices (BMPs) and pollution control technologies as required by NPDES-derived permits.

(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 pursuant to State Board Resolution No. 68-16 in 1968. Unlike the Federal Antidegradation Policy, the California Antidegradation Policy applies to all waters of the State (e.g., isolated wetlands and groundwater), 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 (defined below), such high quality shall be maintained, and

[5] "Waters of the State" are defined more broadly than waters of the United States and include any surface water or groundwater, including saline waters, within the boundaries of the state (Water Code Section 13050(e)).

discharged to that water body shall not unreasonably affect present or anticipated beneficial use of that water resource.

(c) California Toxics Rule

The EPA has established water quality criteria for certain toxic substances via the California Toxics Rule (codified at 40 CFR 131.36(d)(10)). The California Toxics Rule established acute (i.e., short-term) and chronic (i.e., long-term) standards for bodies of water, such as inland surface waters and enclosed bays and estuaries, that are designated by each RWQCB as having beneficial uses protective of aquatic life or human health.

(d) Basin Planning

The California legislature has assigned the primary responsibility of administering and enforcing statutes for the protection and enhancement of water quality, including the Porter-Cologne Act and portions of the CWA, to the SWRCB and its nine RWQCBs. The SWRCB provides state-level coordination of the regional water quality control programs by establishing statewide policies and plans for implementation of state and federal regulations. The nine RWQCBs throughout California adopt and implement basin plans that recognize the unique characteristics of each region with regard to natural water quality, actual and potential beneficial uses, and water quality problems (Basin Plans). The Los Angeles RWQCB is responsible for the protection of the beneficial uses of waters within the coastal watersheds of Los Angeles and Ventura Counties, including the Project area (as it is located in Los Angeles County).

The Basin Plan for the Coastal Watersheds of Los Angeles and Ventura Counties[6] designates beneficial uses, establishes water quality objectives, and contains implementation programs and policies to achieve those objectives for all waters addressed through the plan (California Water Code Sections 13240–13247). The Los Angeles RWQCB Basin Plan must conform to the policies set forth in the Porter-Cologne Act as established by the SWRCB in its state water policy. The Porter-Cologne Act also provides the RWQCBs with authority to include in their Basin Plans water discharge prohibitions applicable to particular conditions, areas, or types of waste. The Los Angeles RWQCB Basin Plan is continually updated to include amendments related to implementation of TMDLs of potential pollutants or water quality stressors, revisions of programs and policies within the Los Angeles RWQCB region, and changes to beneficial use designations and associated water quality objectives.

[6] Los Angeles Regional Water Quality Control Board (RWQCB), Basin Plan for the Coastal Watersheds of Los Angeles and Ventura Counties, September 2014.

(e) NPDES and WDR Permits

NPDES and WDR permit programs regulate construction, municipal, and industrial stormwater discharges as well as non-stormwater discharges under the requirements of the CWA and the Porter-Cologne Act. The construction stormwater program is administered by the SWRCB, while the municipal stormwater discharge program and other WDRs are administered by the Los Angeles RWQCB. **Table IV.H-1** lists the water quality-related permits that would apply directly or indirectly (through implementing City ordinances) to the Project, each of which is further described below.

TABLE IV.H-1
STATE AND REGIONAL WATER QUALITY-RELATED PERMITS AND APPROVALS

Program/ Activity	Order Number/ NPDES Number	Permit Name	Affected Area
Construction Stormwater Program	2009-0009-DWQ/ CAS000002, as amended	NPDES General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Construction General Permit)	Statewide
Municipal Stormwater Program	Los Angeles RWQCB Order No. R4-2012-0175-A01 / CAS004001	Waste Discharge Requirements for the Municipal Separate Storm Sewer System (MS4) Discharges (Los Angeles County MS4 Permit)	Coastal Watersheds of Los Angeles County, except those discharges originating from the City of Long Beach MS4
Discharge of Groundwater from Construction and Project Dewatering to Surface Waters	Los Angeles RWQCB Order No. Order No. R4-2018-0125	Waste Discharge Requirements for the Discharge of Groundwater from Construction and Project Dewatering to Surface Waters in the Coastal Watersheds of Los Angeles and Ventura Counties	Coastal Watersheds of Los Angeles and Ventura Counties

NOTES: NPDES = National Pollutant Discharge Elimination System; MS4 = Municipal Separate Storm Sewer System; WDR = Waste Discharge Requirement.

(f) Construction General Permit (SWRCB Order 2009-0009-DWQ, as amended)

For stormwater discharges associated with construction activity in the State of California, the SWRCB has adopted the General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities ("Construction General Permit"; SWRCB Order 2009-0009-DWQ)[7] to avoid and minimize water quality impacts attributable to such activities. The Construction General Permit is required for all projects where construction activity would disturb 1 acre or more of soil. Construction activity subject to this permit includes clearing, grading, and disturbances to the ground, such as stockpiling and excavation. The Construction General Permit requires the development and implementation of a stormwater pollution prevention plan (SWPPP), which would include and specify water quality BMPs designed to prevent pollutants from contacting stormwater and keep all products of erosion from moving off site into receiving waters. Routine inspection of all BMPs is required under the provisions of the Construction General Permit, and the SWPPP must be prepared and implemented by "qualified individuals" as defined by the SWRCB.

(g) WDRs for the Discharge of Groundwater from Construction and Project Dewatering to Surface Waters in the Coastal Watersheds of Los Angeles and Ventura Counties (Los Angeles RWQCB Order No. R4-2018-0125)

This general order[8] is intended to authorize discharges of treated or untreated groundwater generated from permanent or temporary dewatering operations or other applicable wastewater discharges not specifically covered in other general or individual NPDES permits. Discharges from facilities to waters of the United States that do not cause, have the reasonable potential to cause, or contribute to an in-stream excursion above any applicable state or federal water quality objectives/criteria or cause acute or chronic toxicity in the receiving water are authorized discharges in accordance with the conditions set forth in this order. To demonstrate coverage under the order, dischargers must submit documentation to show that the discharge would not cause or contribute to a violation of any applicable water quality objective/criteria for the receiving waters, or any other discharge prohibition listed in the order. In addition, discharges must perform reasonable potential analysis using a representative sample of groundwater or wastewater to be discharged. The sample shall be analyzed and the data compared to the water quality screening criteria for the constituents listed in the order, and if results show exceedance of water quality screening criteria, the discharge would be required to treat the wastewater to acceptable standards prior to discharge.

7 State Water Resources Control Board (SWRCB), "Storm Water Program," effective July 1, 2010.

8 Los Angeles RWQCB, Tentative Waste Discharge Requirements-General NPDES Permit for Discharges of Groundwater from Construction and Project Dewatering to Surface Waters in Coastal Watersheds of Los Angeles and Ventura Counties (General NPDES Permit No. CAG994004), July 27, 2018.

(h) California Water Plan

Required by California Water Code Section 10005(a), the California Water Plan,[9] prepared by the California Department of Water Resources (DWR), is the State government's strategic plan for managing and developing water resources statewide for current and 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 California Water Plan, which is updated every 5 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 California 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 the California Water Plan Update is to meet the California Water Code Section 10005(a) requirement for a master plan document to guide the orderly and coordinated control, protection, conservation, development, management and efficient utilization of the water resource of the state. It received broad support among those participating in California water planning and is a useful document for water planners throughout the State, legislators, and other decision-makers.

(3) Local

(a) Ballona Creek Watershed Management Plan

The Ballona Creek Watershed Management Plan[10] is an outgrowth of the efforts of the Ballona Creek Watershed Task Force, a stakeholder group formed in 2001 by the Los Angeles County Department of Public Works, the Santa Monica Bay Restoration Commission, the City of Los Angeles (City), and Ballona Creek Renaissance to collectively set forth a strategy to develop pollution control and habitat restoration actions that could achieve an ecologically healthy watershed. The plan provides an assessment of existing environmental conditions, establishes goals and objectives to achieve an ecologically healthy watershed, identifies methods to achieve specific water quality improvements, recognizes opportunities for habitat restoration, develops a community-based watershed monitoring plan, and identifies existing and future funding sources for plan implementation. With regard to individual development projects, the plan calls for implementation of BMPs to reduce contaminants in dry weather flows and stormwater flows and to reduce the volume of stormwater flows.

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9 California Department of Water Resources (DWR), California Water Plan Update 2018, Managing Water Resources for Sustainability, June 2019.

10 Los Angeles County Department of Public Works, Ballona Creek Watershed Management Plan, https://www.ladpw.org/wmd/watershed/bc/bcmp/masterplan.cfm,September 2004.

(b) Municipal Stormwater Permit (Los Angeles RWQCB Order No. R4-2012-0175-A01, as amended)

The Waste Discharge Requirements for the Municipal Separate Storm Sewer System Discharges from the Coastal Watersheds of Los Angeles County, except those discharges originating from the City of Long Beach MS4 (MS4 Permit)[11] covers 84 cities and most of the unincorporated areas of Los Angeles County. Under the MS4 Permit, the Los Angeles County Flood Control District is designated as the "Principal Permittee." The "Permittees" are the 84 Los Angeles County cities, with the exception of Avalon, Long Beach, Palmdale, and Lancaster, and Los Angeles County. Collectively, these Permittees (including the City) are the "Co-Permittees." The Principal Permittee helps to facilitate activities necessary to comply with the requirements outlined in the MS4 Permit, but is not responsible for ensuring compliance by the other Permittees.

The MS4 Permit requires Co-Permittees, including the City, to implement a development planning program to address stormwater pollution. These programs require project applicants for certain types of projects to implement a Standard Urban Stormwater Mitigation Plan (SUSMP) throughout the operational life of the project. The purpose of SUSMP is to reduce the discharge of pollutants in stormwater and to eliminate increases in pre-existing runoff rates and volumes by outlining BMPs which must be incorporated into the design plans of new development and redevelopment. The City enforces the provisions of the Los Angeles County MS4 Permit through its Stormwater and Urban Runoff Pollution Control, Los Angeles Municipal Code (LAMC) Chapter VI, Article 4.4, Sections 64.70 and 64.72.

(c) Low Impact Development (LID) Ordinance

In October 2011, the City passed an ordinance (Ordinance No. 181899) amending LAMC Chapter VI, Article 4.4, Sections 64.70 and 64.72 to expand the applicability of the existing SUSMP requirements by imposing rainwater Low Impact Development (LID) strategies on projects that require building permits. The LID ordinance became effective on May 12, 2012. LID is a stormwater management strategy with goals to mitigate the impacts of increased runoff and stormwater pollution as close to its source as possible. LID promotes the use of natural infiltration systems, evapotranspiration, and the reuse of stormwater. The goal of these LID practices is to remove nutrients, bacteria, and metals from stormwater while also reducing the quantity and intensity of stormwater flows. Through the use of various infiltration strategies, LID is aimed at minimizing impervious surface area. Where infiltration is not feasible, the use of bioretention, rain gardens, green roofs,

[11] Los Angeles RWQCB, Waste Discharge Requirements for Municipal Separate Storm Sewer System (MS4) Discharges Within the Coastal Watersheds of Los Angeles County, Except Those Discharges Originating from the City of Long Beach MS4, Order No. R4-2012-0175-A01 amending Order No. R4-2012-0175, as amended by State Water Board Order WQ 2015-0075, NPDES Permit No. CAS004001, September 8, 2016.

and rain barrels that would store, evaporate, detain, and/or treat runoff may be used. The intent of the City's LID standards are to:

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

The City Bureau of Sanitation, Watershed Protection Division has adopted the LID standards issued by the Los Angeles RWQCB and the City's Department of Public Works.[12] The LID Ordinance conforms to the regulations outlined in the NPDES Permit and SUSMP.

(d) Los Angeles Municipal Code

Pursuant to LAMC Section 62.105, inclusive, any proposed drainage improvements within the street right of way or any other property owned by or under the control of the City require the approval of a Class "B" Permit (B-Permit). Under the B-Permit process, storm drain installation plans are subject to review and approval by the LADPW, Bureau of Engineering. Additionally, any connections to the City's storm drain system from a private property to a City catch basin or an underground storm drain pipe requires a storm drain connection permit from Bureau of Engineering.

LAMC Section 64.70 sets forth the City's Stormwater and Urban Runoff Pollution Control Ordinance. The ordinance prohibits the discharge of the following into any storm drain system:

- Any liquids, solids, or gases which by reason of their nature or quantity are flammable, reactive, explosive, corrosive, or radioactive, or by interaction with other materials could result in fire, explosion or injury.
- Any solid or viscous materials, which could cause obstruction to the flow or operation of the storm drain system.

[12] City Bureau of Sanitation, Watershed Protection Division, Planning and Land Development Handbook for Low Impact Development (LID), Part B, Planning Activities, May 9, 2016.

- Any pollutant that injures or constitutes a hazard to human, animal, plant, or fish life, or creates a public nuisance.
- Any noxious or malodorous liquid, gas, or solid in sufficient quantity, either singly or by interaction with other materials, which creates a public nuisance, hazard to life, or inhibits authorized entry of any person into the storm drain system.
- Any medical, infectious, toxic or hazardous material or waste.

Additionally, unless otherwise permitted by a NPDES permit, the ordinance prohibits industrial and commercial developments from discharging untreated wastewater or untreated runoff into the storm drain system. Furthermore, the ordinance prohibits trash or any other abandoned objects or materials from being deposited such that they could be carried into the City's storm drains. Lastly, the ordinance not only makes it a crime to discharge pollutants into the storm drain system and imposes fines on violators, but also gives City public officers the authority to issue citations or arrest business owners or residents who deliberately and knowingly dump or discharge hazardous chemicals or debris into the storm drain system.

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

(e) City Water Quality Compliance Master Plan for Urban Runoff

In 2009, the City adopted the Water Quality Compliance Master Plan (WQCMP),[13] a 20-year strategy for clean stormwater and urban runoff to reduce the pollution flowing into local rivers, creeks, lakes, and beaches. By promoting green infrastructure, the WQCMP seeks a broad watershed-based perspective using green and natural solutions to improve water quality and maintain the City's compliance with current and emerging water quality regulations. The WQCMP does the following:

- Describes the existing status of urban runoff management in the City and watershed management efforts by the City and other organizations
- Identifies key issues for the future of urban runoff management
- Provides strategic guidelines for improving the quality of the City’s rivers, creeks, lakes, and the Pacific Ocean

[13] City Bureau of Sanitation, Watershed Protection Division, Water Quality Compliance Master Plan for Urban Runoff, May 2009.

- Identifies opportunities for collaboration among City departments and with non-governmental organizations
- Describes how rainwater can be used beneficially to augment the City's water supply

(f) Los Angeles County Hydrology Manual

The City regulates drainage collection, treatment, and conveyance of surface water on the Project Site. Pursuant to Special Order No. 007-1299, issued on December 3, 1999, the City has adopted the Los Angeles County Department of Public Works Hydrology Manual as its basis of design for storm drainage facilities. The Hydrology Manual requires projects to have drainage facilities to meet the Urban Flood level of protection, which is defined as runoff from a 25-year frequency storm falling on a saturated watershed. A 25-year frequency design storm has a probability of 1/25 of being equaled or exceeded in any given year. The combined capacity of the storm drain and street flow system must be enough to accommodate flow from a 50-year storm event. Areas with sump[14] conditions are required to have a storm drain conveyance system capable of conveying flow from a 50-year storm event.

b) Existing Conditions

(1) Surface Water Hydrology & Quality

(a) Regional

(i) Watershed Boundaries

The proposed Project is located within the jurisdiction of the Los Angeles RWQCB, which administers the Los Angeles RWQCB Basin Plan and other water quality programs within the coastal watersheds of Los Angeles and Ventura Counties. The Los Angeles RWQCB has jurisdiction over is a 5,600-square-mile area that encompasses all coastal drainages flowing to the Pacific Ocean between Rincon Point (on the coast of western Ventura County) and the eastern Los Angeles County line. The boundaries of the Los Angeles Region are demarcated partly by physical watershed divides and partly by administrative boundaries (i.e., the Orange County/Los Angeles County line).[15]

Table IV.H-2 shows the watersheds that encompass the Project Site as designated by the U.S. Geological Survey (USGS) Watershed Boundary Dataset[16] (**Figure IV.H-1**, USGS Watersheds), as well as the Los Angeles RWQCB Basin Plan (**Figure IV.H-2**, Regional Water Quality Control Board Hydrologic Areas). The USGS Watershed Boundary Dataset

[14] A "sump" is a pit, hollow, or other small area in which free-flowing liquid collects.
[15] Los Angeles RWQCB, Water Quality Control Plan Los Angeles Region, Basin Plan for the Coastal Watersheds of Los Angeles and Ventura Counties (Region 4), 2019.
[16] U.S. Geological Survey (USGS), The National Map Viewer, August 2018.

delineates watersheds according to hydrologic units (HUs), which are nested within one another according to the scale of interest. USGS identifies HUs by name and by a hydrologic unit code (HUC), which gets longer as the watershed boundaries becomes more detailed.

The Los Angeles RWQCB Basin Plan identifies watersheds in a hierarchical system similar to the USGS Watershed Boundary Dataset, but with somewhat different watershed names and geographic boundaries. These geographic boundaries are likewise watershed-based, but are typically referred to as HUs, hydrologic areas and hydrologic sub-areas (HSAs). These generally constitute the geographic basis around which many surface water quality problems and goals and/or objectives are defined in the Los Angeles RWQCB Basin Plan.

The proposed Project is located within the Interior Santa Monica Bay HA (No. 404.6) of the Santa Monica Bay HU (No. 404), and more specifically within the Hollywood HSA (No. 404.62) of the Los Angeles RWQCB Basin Plan.[17] The USGS Watershed Boundary Dataset indicates that the Project Site lies within the 128-square-mile Ballona Creek watershed of the Santa Monica Bay sub-basin in the Ventura/San Gabriel basin (Figure IV.H-1).[18]

TABLE IV.H-2
WATERSHED DESIGNATIONS BY AGENCY/SOURCE

Agency/Source	HUC/Basin No.	Analysis Scale	Name	Size (sq. mi.)
USGS Watershed Boundary Dataset	180701	Basin	Ventura/San Gabriel	5,606
	18070104	Sub-basin	Santa Monica Bay	673
	1807010403	Watershed	Ballona Creek	128
Los Angeles RWQCB Basin Plan	400	RWQCB Region	Los Angeles	4,412
	404	Hydrologic Unit (HU)	Santa Monica Bay	417
	404.6	Hydrologic Area (HA)	Interior Santa Monica Bay	131
	404.62	Hydrologic Sub Area (HSA)	Hollywood	36

SOURCES**:** USGS, The National Map Viewer, August 21, 2018; Los Angeles RWQCB, Water Quality Control Plan Los Angeles Region, Basin Plan for the Coastal Watersheds of Los Angeles and Ventura Counties (Region 4), as amended through 2019.
NOTES**:** HUC = hydrologic unit code; sq. mi. = square miles.

[17] Los Angeles RWQCB, Basin Plan for the Coastal Watersheds of Los Angeles and Ventura Counties. September 2014, Figure IV.H-2.
[18] USGS, The National Map Viewer, August 21, 2018.

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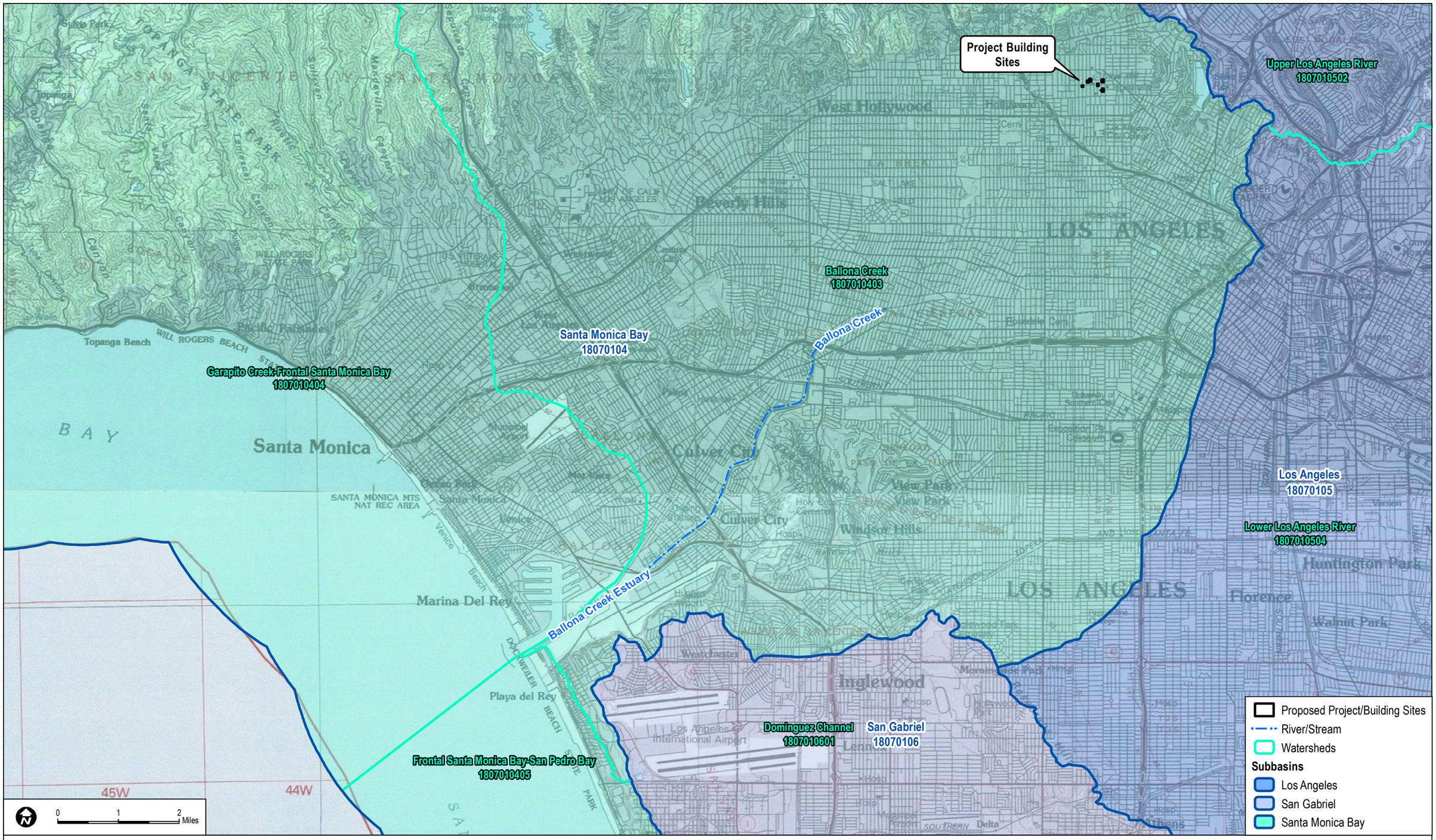

SOURCE: USGS 7.5-Minute Series Topanga, Beverly Hills, Hollywood, Los Angeles, Venice, Inglewood, South Gate Quadrangels, USGS 2018; CA State Water Resource Board 2016

FIGURE IV.H-1

USGS Watersheds

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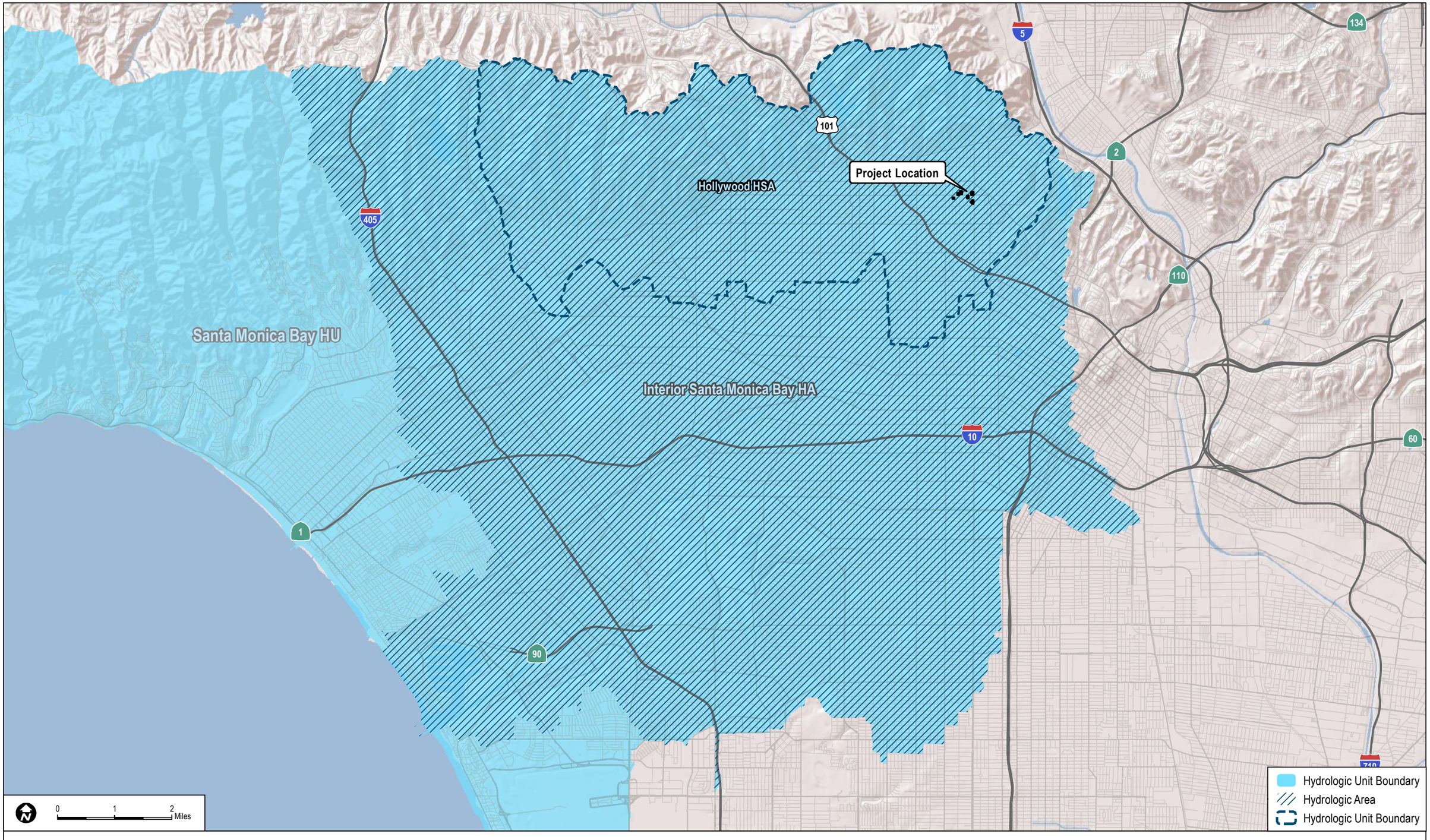

SOURCE: RWQCB; County of Los Angeles 2020; ESRI

FIGURE IV.H-2

Regional Water Quality Control Board Hydrologic Areas

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(ii) Surface Water Quality

Several water bodies within and adjacent to the watershed are designated as "water quality-limited" for water quality impairments under Section 303(d) of the CWA (**Table IV.H-3**). Being "water quality-limited" means that a water body is "not reasonably expected to attain or maintain water quality standards" without additional regulation. The law requires that the EPA develop TMDLs for each impaired water body in the nation. The TMDLs specify the maximum amount of a pollutant a water body can receive and still meet water quality standards. A TMDL may also include a plan for bringing an impaired water body back within the range of applicable water quality standards. The most recently approved Section 303(d) List of Water Quality Limited Segments, as listed in the SWRCB 2014/2016 Integrated Report on Water Quality, lists Ballona Creek, Sepulveda Canyon, the Ballona Creek Wetlands, and the Ballona Creek Estuary as impaired water bodies under Section 303(d) of the CWA (**Figure IV.H-3**, Regional 303d List Quality Impaired Water Bodies).[19]

TABLE IV.H-3
CWA SECTION 303(D) IMPAIRMENTS

Name	Pollutant/Stressor	Potential Sources	TMDL Status	Year
Ballona Creek	Cadmium (sediment)	Nonpoint Source/ Point Source	Revised	2005
	Coliform Bacteria	Nonpoint Source/ Point Source	Approved	2007
	Copper, Dissolved	Nonpoint Source	Approved	2005
	Cyanide	Source Unknown	Scheduled	2019
	Lead	Source Unknown	Approved	2005
	Selenium	Source Unknown	Approved	2005
	Toxicity	Source Unknown	Approved	2005
	Trash	Source Unknown	Approved	2001
	Viruses (enteric)	Nonpoint Source/ Point Source	Approved	2007
	Zinc	Source Unknown	Approved	2005
Ballona Creek Wetlands	Exotic Vegetation	Nonpoint Source	Scheduled	2019
	Habitat alterations	Nonpoint Source	Scheduled	2019
	Hydromodification	Nonpoint Source	Scheduled	2019
	Reduced Tidal Flushing	Nonpoint Source	Scheduled	2019
	Trash	Nonpoint Source	Scheduled	2019

[19] SWRCB, 2014/2016 Integrated Report on Water Quality with Web-Based Interactive Map, https://www.waterboards.ca.gov/water_issues/programs/tmdl/integrated2014_2016.shtml, accessed September 21, 2018.

TABLE IV.H-3
CWA SECTION 303(D) IMPAIRMENTS

Name	Pollutant/Stressor	Potential Sources	TMDL Status	Year
Ballona Creek Estuary	Cadmium	Source Unknown	Approved	2005
	Chlordane (tissue and sediment)	Nonpoint Source/ Point Source	Approved	2005
	Coliform Bacteria	Nonpoint Source/ Point Source	Approved	2007
	Copper	Source Unknown	Approved	2005
	DDT (tissue and sediment)	Nonpoint Source/ Point Source	Approved	2005
	Lead (sediment)	Nonpoint Source/ Point Source	Approved	2005
	PAHs (Polycyclic Aromatic Hydrocarbons, sediment)	Nonpoint Source/ Point Source	Approved	2005
	PCBs (Polychlorinated biphenyls, tissue and sediment)	Nonpoint Source/ Point Source	Approved	2005
	Sediment Toxicity	Nonpoint Source/ Point Source	Approved	2005
	Shellfish Harvesting Advisory	Nonpoint Source/ Point Source	Required	2006
	Silver	Source Unknown	Approved	2005
	Zinc	Nonpoint Source/ Point Source	Approved	2005
Sepulveda Canyon	Ammonia	Nonpoint Source	Scheduled	2019
	Copper	Source Unknown	Approved	2005
	Indicator Bacteria	Nonpoint Source	Approved	2003
	Lead	Nonpoint Source	Approved	2005
	Selenium	Source Unknown	Approved	2005
	Zinc	Source Unknown	Approved	2005
Venice Beach	Indicator Bacteria	Nonpoint Source	Approved	2003
Dockweiler Beach	Indicator Bacteria	Nonpoint Source	Approved	2003
Marina del Rey Harbor – Back Basins	Chlordane (tissue and sediment)	Nonpoint Source	Approved	2005
	Copper (sediment)	Nonpoint Source	Approved	2006
	DDT (tissue)	Nonpoint Source	Revised	2005
	Dieldrin (tissue)	Nonpoint Source	Revised	2005

TABLE IV.H-3
CWA SECTION 303(D) IMPAIRMENTS

Name	Pollutant/Stressor	Potential Sources	TMDL Status	Year
	Fish Consumption Advisory	Nonpoint Source	Approved	2005
	Indicator Bacteria	Nonpoint Source	Approved	2004
	Lead (sediment)	Nonpoint Source	Approved	2006
	PBCs (Polychlorinated biphenyls, tissue and sediment)	Nonpoint Source	Approved	2006
	Sediment Toxicity	Nonpoint Source	Approved	2005
	Zinc (sediment)	Nonpoint Source	Approved	2006
Santa Monica Bay	DDT (tissue and sediment)	Nonpoint Source/ Point Source	Scheduled	2019
	Debris	Nonpoint Source/ Point Source	Scheduled	2019
	Fish Consumption Advisory	Nonpoint Source/Point Source	Scheduled	2019
	PCBs (Polychlorinated biphenyls, tissue and sediment)	Nonpoint Source/Point Source	Scheduled	2019
	Sediment Toxicity	Nonpoint Source/Point Source	Scheduled	2019

SOURCE: SWRCB, 2014/2016 Integrated Report on Water Quality with Web-Based Interactive Map, https://www.waterboards.ca.gov/water_issues/programs/tmdl/integrated2014_2016.shtml, accessed September 21, 2018.
NOTES: CWA = Clean Water Act; TMDL = Total Maximum Daily Load.

Although not within the watershed, but adjacent to the Ballona Creek Estuary, Venice Beach, Dockweiler Beach, the Marina del Rey Harbor – Back Basins, and Santa Monica Bay are also listed as 303(d) impaired water bodies. Pursuant to listing, the Los Angeles RWQCB will be tasked with developing TMDLs for the listed impairments currently lacking EPA-approved TMDLs in at least one receiving water body, which include cyanide, exotic vegetation, habitat alterations, hydromodification, reduced tidal flushing, trash, ammonia, DDT, debris, fish consumption advisory, PCBs and sediment toxicity. There are currently TMDLs approved by the EPA that apply to the receiving waters for the Project for the following constituents: cadmium, chlordane, coliform bacteria, copper, DDT, dieldrin, fish consumption advisory, indicator bacteria, lead, PAHs, PCBs, sediment toxicity, selenium, shellfish harvesting advisory, silver, toxicity, trash, enteric viruses, and zinc. These impairments are relevant to the proposed Project because runoff from the site (along with runoff from the whole watershed) eventually discharges into or adjacent to these 303(d)

impaired waters, including Ballona Creek Estuary, Venice Beach, Dockweiler Beach, the Marina del Rey Harbor – Back Basins, and Santa Monica Bay.

(b) Local

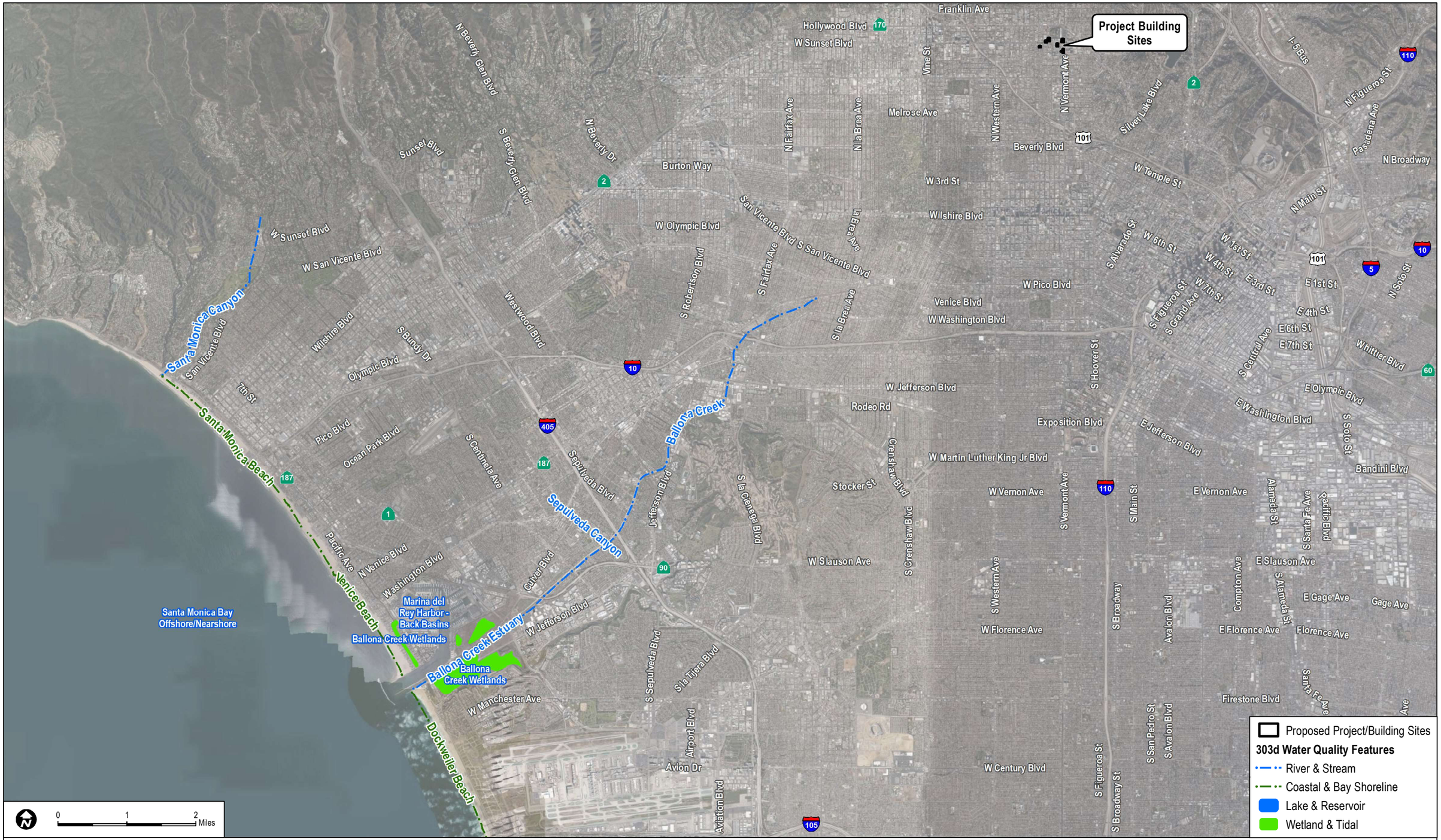
The Project includes six proposed building sites in and around the current Kaiser Permanente Los Angeles Medical Center campus, detailed in Chapter II (Environmental Setting) and **Table III-1** of Chapter III (Project Description, Project Summary Table) of this Draft EIR. Existing drainage on the Project Site can generally be described as flowing slightly southwest on each parcel to the nearest street storm drainage, which flows either from north to south or east to west depending on the general street orientation. The high point of the Project Site is near its northeast corner (Site 5), at about 400 feet above mean sea level; and its low points, each at about 375 feet above mean sea level, lie at the southeast and southwest corners of the Project Site (Sites 1 and 6). This 25-foot grade difference over the Project Site creates a relatively flat area with slopes of approximately 1 percent.[20] As the six individual building sites are presently developed with existing buildings and parking areas, they tend to be even flatter than the adjacent roadways.

Stormwater on the Project Site is presently conveyed to curb drains of varying diameters to a public stormwater system via catch basin intakes (**Figure IV.H-4,** Topography and Water Infrastructure). These intakes connect to the public storm drain system running north–south on Vermont Avenue (45-inch reinforced concrete pipe), south along Edgemont Street to Sunset Boulevard (24-inch to 30-inch reinforced concrete pipe), east–west along Sunset Boulevard (30-inch to 33-inch brick closed channel), or running north–south along Kenmore Avenue (42-inch reinforced concrete pipe).[21] With the exception of a few trees in the parking lot on the southeast corner of Sunset Boulevard and L Ron Hubbard Way (Site 2), and landscaping on either side of the parking lot on the northeast corner of Sunset Boulevard and North Edgemont Street (Site 4), the Project Site is almost completely impervious (roofs, asphalt, parking, driveways, sidewalks).

In the larger vicinity, stormwater runoff is collected in streets through inlets, catch basins and underground storm drains maintained either privately, by the City, or by the Los Angeles County Flood Control District. Stormwater is then conveyed through the storm drain system to Ballona Creek, located southwest of the Project Site. Therefore, the "receiving waters" for the Project (i.e., all waters within the flow network downstream of the Project Site) include Ballona Creek and the Pacific Ocean.

[20] Google Earth, Elevation Profile and Slope Information Tool, 4867 Sunset Boulevard, Los Angeles, California 90027, https://www.google.com/earth/, accessed September 15, 2018.

[21] County of Los Angeles, Department of Public Works Storm Drain System Web Map Viewer, 2018.



SOURCE: CA State Water Resource Boar; Los Angeles County 2020

FIGURE IV.H-3

Regional 303d List Quality Impaired Water Bodies

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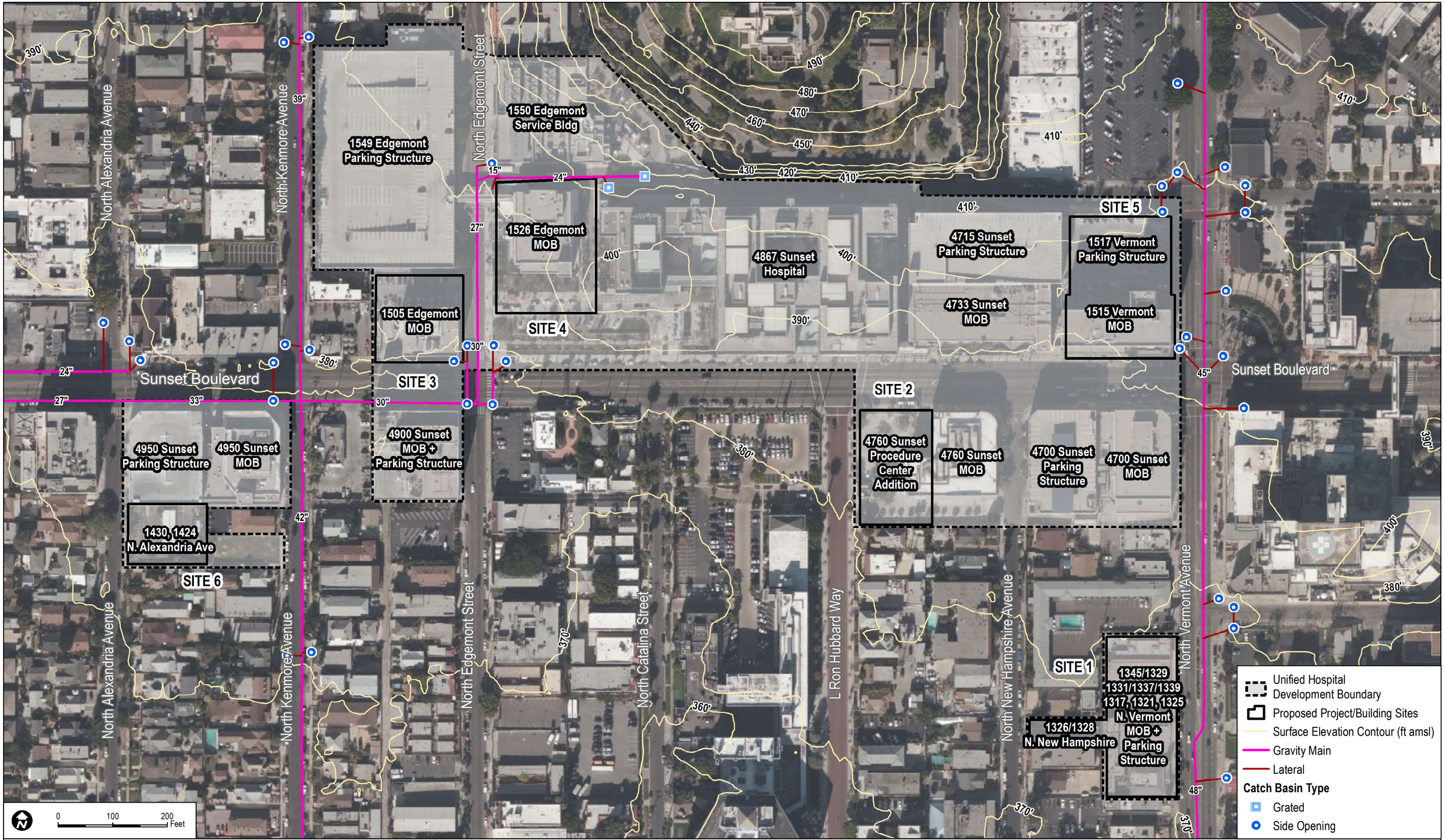

SOURCE: City of Los Angeles DPW 2018; Bing Maps 2017

FIGURE IV.H-4

Topography and Water Infrastructure

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(2) Groundwater Hydrology & Quality

(a) Regional

As illustrated in **Figure IV.H-5**, Department of Water Resources Groundwater Basins, the Project Site is located in the Hollywood Subbasin of the Coastal Plain of the Los Angeles Groundwater Basin. The Hollywood Subbasin underlies the northeastern part of the Coastal Plain of the Los Angeles Groundwater Basin. The subbasin is bounded on the north by the Santa Monica Mountains and the Hollywood fault, on the east by the Elysian Hills, on the west by the Newport-Inglewood fault and the Santa Monica Subbasin, and on the south by the La Brea High (formed by an anticline that brings impermeable rocks close to the surface) and the Central Subbasin. As the majority of the Hollywood Subbasin has been developed with urban impermeable surfaces, groundwater in this subbasin is replenished mostly by percolation of precipitation and stream flow from the Santa Monica Mountains to the north. Groundwater flow is generally westward through the Hollywood Subbasin toward the Newport-Inglewood fault. Flows from the Hollywood Subbasin either pass into the Santa Monica Subbasin or into the Central Basin.[22]

Average annual precipitation in the Hollywood Subbasin ranges between 12 and 14 inches over an area of approximately 16.4 square miles. Total storage capacity of the Subbasin has been estimated to be approximately 200,000 acre-feet over the three water-bearing units: the Fernando formation, the Lakewood formation and the upper alluvial soils. The City of Beverly Hills is currently the only major pumper of groundwater from the Hollywood Subbasin, operating on a maximum safe yield of 4,400 acre-feet per year.[23]

According to the Los Angeles RWQCB Basin Plan, groundwater in the greater Los Angeles area has been substantially degraded compared to background levels.[24] This degradation is a result of the area's historic and current uses, including pesticides from historic agricultural practices, nitrogen and pathogens from areas without sewer utilities, and chemical contamination from industrial and commercial activities. As discussed in the Los Angeles RWQCB Basin Plan, as a result of inadequate handling, storage, and disposal practices, thousands of underground storage tanks in the region have leaked or are leaking. As such, petroleum fuels, solvents, and other hazardous substances have discharged into the subsurface causing pollution of ground water.

As the majority of the public water supply in the Hollywood Subbasin is supplied by imported surface water, groundwater quality information from public supply wells is scarce. The six public supply wells in the Hollywood Subbasin are located in the western portion, underlying

[22] California DWR, California's Groundwater Bulletin 118 Interim Update, December 22, 2016.
[23] California DWR, California's Groundwater Bulletin 118 Interim Update, December 22, 2016.
[24] Los Angeles RWQCB, Basin Plan for the Coastal Watersheds of Los Angeles and Ventura Counties, September 2014.

the City of Beverly Hills, and are monitored regularly for water quality. Contaminants of concern for the Hollywood Subbasin include total dissolved solids (TDS), boron, chloride and sulfate. TDS concentrations in the groundwater have been measured as high as 1,062 milligrams per liter (mg/L).[25] This exceeds the water quality objective from the Los Angeles RWQCB Basin Plan: TDS of 750 mg/L, and the California Maximum Contamination Level (MCL) for public supply wells: 1,000 mg/L. Additionally, boron has been measured at concentrations as high as 1.190 mg/L, exceeding the MCL and Basin Plan limits of 1.0 mg/L. While chloride and sulfate concentrations in the Beverly Hills public supply wells in the subbasin have been measured above the Basin Plan water quality objectives of 100 mg/L, these concentrations have not exceeded the respective MCLs of 500 mg/L.

(b) Local

(i) Local Groundwater Levels

As the Project and surrounding areas receive potable water from LADWP, the majority of which is imported surface water, there are no water supply wells located in the vicinity of the Project. Monitoring wells associated with two nearby Leaking Underground Storage Tanks (LUST) cleanup sites, however, indicate that shallow groundwater in the upper alluvial soils of the Project vicinity has been measured between 7.00 and 31.63 feet below ground surface near the intersection of Sunset Boulevard and North Mariposa Avenue. Groundwater at a second site near the intersection of North Vermont Avenue and Hollywood Boulevard has been detected between 12.27 and 44.79 feet below ground surface.[26] As most of the surrounding properties have been developed with impermeable surfaces, the Project Site and local area are not currently locations of significant groundwater recharge.

[25] SWRCB, 2014/2016 Integrated Report on Water Quality with Web-Based Interactive Map, https://www.waterboards.ca.gov/water_issues/programs/tmdl/integrated2014_2016.shtml, accessed September 21, 2018.

[26] SWRCB, GeoTracker, May 5, 2020.

SOURCE: USGS 7.5-Minute Series Topanga, Beverly Hills, Hollywood, Los Angeles, Venice, Inglewood, South Gate Quadrangels, USGS 2018; RWQCB 2005

FIGURE IV.H-5

Department of Water Resources Groundwater Basins

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(ii) Local Groundwater Quality

Water quality samples have been collected from approximately 2001 to present at the two LUST cleanup sites mentioned above. Detected contaminants at these two locations have historically included 1,2-dichloroethane, benzene, di-isopropyl ether (DIPE), ethanol, ethylbenzene, ethyl tert-butyl ether (ETBE), gasoline range organics, methane, methyl-tert-butyl ether (MTBE), naphthalene, tetrachloroethene, toluene, trichloroethene, total xylenes, cis-1,2-dichloroethene, n-butylbenzene, sec-butylbenzene, tert-amyl methyl ether (TAME), tert-butyl alcohol (TBA), and trans-1,2-dichloroethene. The maximum concentrations of these detected contaminants, with the exception of n-butylbenzene and sec-butylbenzene, either exceeded the MCL drinking water standard or does not have an established standard. These maximum concentrations, however, were detected historically, and the most recent sample collected from these sites (November 2019) exceeded the MCL for benzene (3.29 micrograms per liter [µg/L], MCL of 1.0 µg/L), MTBE (417 µg/L, MCL of 13 µg/L) and TBA (2,390 µg/L, MCL of 12 µg/L). Additionally, sulfate was detected at a concentration of 300 mg/L, above the Los Angeles RWQCB Basin Plan water quality objective of 100 mg/L.[27]

In addition, on February 6, 1989, a diesel leak occurred from an underground storage tank on Kaiser Permanente property, located at 4867 Sunset Boulevard (not a part of the Project Site). Following site assessment and verification monitoring, this LUST case was closed on April 7, 1997.[28]

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 ground water quality;***

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

Threshold (c): ***Substantially alter the existing drainage pattern of the site or area, including through the alteration of the***

[27] SWRCB, GeoTracker, May 5, 2020.
[28] SWRCB, GeoTracker, May 5, 2020.

course of a stream or river or through the addition of impervious surfaces, in a manner which would:

i. Result in a 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 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.

This analysis relies upon the Appendix G thresholds. The analysis uses the following factors and considerations identified in the 2006 L.A. CEQA Thresholds Guide, as appropriate, to assist in answering the Appendix G threshold questions:

(1) Surface Water Hydrology

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

- Substantially reduce or increase the amount of surface water in a water body; Interference with wildlife movement/migration corridors that may diminish the chances for long-term survival of a sensitive species; or

- Result in a permanent, adverse change to the movement of surface water sufficient to produce a substantial change in the current or direction of water flow.

(2) Surface Water Quality

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

(3) Groundwater Level

- Change potable water levels sufficiently to:

  – Reduce the ability of a water utility to use the groundwater basin for public water supplies, conjunctive use purposes, storage of imported water, summer/winter peaking, or to respond to emergencies and drought;

  – Reduce yields of adjacent wells or well fields (public or private); or

  – Adversely change the rate or direction of flow of groundwater; or

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

(4) Groundwater Quality

- Affect the rate or change the direction of movement of existing contaminants;
- Expand the area affected by contaminants;
- Result in an increased level of groundwater contamination (including that from direct percolation, injection or salt water intrusion); or
- Cause regulatory water quality standards at an existing production well to be violated, as defined in the California Code of Regulations Title 22, Division 4, and Chapter 15 and in the Safe Drinking Water Act.

b) Methodology

The Project's impacts on existing hydrology and water quality conditions are based in part on the Water Supply Assessment completed by the LADWP (Appendix G-1 of the Draft EIR). The analysis forecasts the Project's water demand and compares the Project's demand with the overall total demand projections in LADWP's Urban Water Management Plan.[29] Other factors considered for the analysis of hydrology and water quality impacts include the Project's compliance with applicable regulations, changes in site configuration and use, and the Project's incorporation of stormwater BMPs to control pollutants and volume. In addition, the analysis considered potential impacts to groundwater levels as a result of groundwater extraction and recharge.

[29] LADWP, 2015 Urban Water Management Plan, April 2016.

c) Project Design Features

Specific project design features (PDFs) would be implemented as part of the Project, to reduce potentially significant impacts related to water quality, water supply, and stormwater runoff rates/volume to less-than-significant levels. The following PDFs would be implemented during demolition, construction, design, and operation of the proposed Project.

PDF-HYD-1: High-efficiency toilets with a flush volume of 1.0 gallon of water per flush or less

PDF-HYD-2: No-flush urinals, with 1.0 gallon of water used for automatic rinsing every 72 hours

PDF-HYD-3: Showerheads with a flow rate of 1.0 gallon per minute or less

PDF-HYD-4: Domestic water heating systems located proximate to the point(s) of use, or a central plant service, based on which system is determined to be most efficient

PDF-HYD-5: Tankless and on-demand water heaters, where appropriate

PDF-HYD-6: Drip/subsurface irrigation and micro sprays (micro sprays apply water only where it is needed, to reduce water waste)

PDF-HYD-7: Use of proper hydro-zoning and zoned irrigation (a method that groups plants with similar water requirements in the same areas of a site to minimize irrigation)

PDF-HYD-8: Water-efficient landscaping (40 percent of plants would be drought tolerant)

d) Analysis of Project Impacts

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

(1) Impact Analysis

(a) *Construction*

The proposed Project would include demolition and construction activities that together would result in land disturbances of approximately 15.34 acres. Such activities have the potential to adversely affect the quality of stormwater runoff through increases in turbidity, sedimentation, and construction-related pollutants.

Because land disturbance for Project construction activities would exceed 1 acre, a General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Construction General Permit, Order 2009-0009-DWQ), issued by the SWRCB, would be required prior to the start of construction on the Project Site. Specifically, the Construction General Permit requires that the following be kept on site at all times: (1) a copy of the Notice of Intent to Comply with Terms of the Construction General Permit; (2) a waste discharge identification number issued by the SWRCB; (3) a SWPPP and Monitoring Program Plan for the construction activity requiring the construction permit; and (4) records of all inspections, compliance and non-compliance reports, evidence of self-inspection, and good housekeeping practices.

The SWPPP requires the construction contractor to implement water quality BMPs to ensure that water quality standards are met, and that stormwater runoff from the construction work areas do not cause degradation of water quality in receiving water bodies (in this case the regional storm drain system and Ballona Creek). The SWPPP must describe the type, location, and function of stormwater BMPs to be implemented, and must demonstrate that the combination of BMPs selected are adequate to meet the discharge prohibitions, effluent standards, and receiving water limitations contained in the Construction General Permit. These BMPs would be applicable to sites, or portions of sites, where construction activities expose soil to potential for erosion and/or transport from the Project. For sites left temporarily undeveloped with disturbed soil during the phased Project construction, the SWPPP would require that BMPs be sufficient to temporarily stabilize the site to prevent sediment or other contaminants from leaving the site. These BMPs could include fiber rolls, silt fencing, grading and perimeter controls to prevent any disturbed soil from leaving the vacant site. These BMPs would be further refined and/or added to as necessary by a qualified SWPPP professional to meet the performance standards in the Construction General Permit.

Although the majority of the Project is currently developed with impermeable surfaces, the construction phase would expose disturbed soils that would increase infiltration rates to groundwater. In compliance with a Project-specific SWPPP, the construction contractor would employ good housekeeping measures that would reduce the potential impacts of incidental spills of chemical contaminants including petroleum products. Specifically, required secondary containment for all potential chemical contaminants including fuel drums and portable toilets, as well as dedicated concrete washout bins, would limit the possibility of groundwater contamination.

Compliance with the Construction General Permit would ensure that stormwater runoff from the site during construction would not violate water quality standards or waste discharge requirements, resulting in degradation of surface water or groundwater quality. As a result, impacts would be less than significant.

(b) Operation

Land uses on the Project Site that could contribute pollutants to stormwater runoff in the long term include uncovered parking areas (through small fuel and/or fluid leaks), uncovered refuse storage/management areas, landscape/open space areas (if pesticides/herbicides and fertilizers are improperly applied), and general litter/debris (e.g., generated during facility loading/unloading activities). In addition, as described in Section IV.G, Hazards and Hazardous Materials, of this Draft EIR, there is the potential for lead, asbestos, and medical wastes to be generated, stored and/or handled on site. To the extent these wastes are stored in areas exposed to stormwater runoff, there could be water quality impacts as a result. Implementation of the Hazardous Substance Management, Handling, Storage, Disposal, and Emergency Response Plan (Mitigation Measure **MM-HAZ-1**), besides ensuring proper characterization and disposal, would also ensure such pollutants and wastes associated with Project operation are not exposed to stormwater runoff. Mitigation Measure **MM-HAZ-1** is described in detail in Section IV.G of this Draft EIR.

During storm events, the first few hours of moderate to heavy rainfall could wash a majority of pollutants from the paved areas where, without proper stormwater controls and BMPs, they could enter the municipal storm drain system before eventually being discharged into Ballona Creek. The majority of pollutants entering the storm drain system in this manner would be dust, litter, and possibly residual petroleum products (e.g., motor oil, gasoline, diesel fuel). Certain metals, along with nutrients and pesticides from landscape areas, can also be present in stormwater runoff. Between periods of rainfall, surface pollutants tend to accumulate, and runoff from the first significant storm of the year (“first flush”) would likely have the largest concentration of pollutants. Given the large size (128 square miles) and highly urbanized character of the Ballona Creek watershed,

the Project Site contribution to pollutant loads in receiving waters would be negligible (even if uncontrolled). However, because water quality is a cumulatively significant issue in the region, even small contributions could be cumulatively significant.

As a permittee subject to the MS4 permit, the City is responsible for ensuring that all new development and redevelopment projects comply with the performance criteria contained in the MS4 Permit and does so primarily through enforcement of Los Angeles Municipal Code Section 64.70 (Storm Water and Urban Runoff Pollution). The proposed Project meets the definition of a redevelopment project and thus would be required to control pollutants, pollutant loads, and runoff volume emanating from the Project Site by: (1) minimizing the impervious surface area and implementing source control measures, (2) controlling runoff from impervious surfaces using structural BMPs (e.g., infiltration, bioretention, and/or rainfall harvest and re-use), and (3) ensuring all structural BMPs are monitored and maintained during operations. These BMPs would limit the amount of stormwater and non-stormwater runoff (e.g., irrigation), which would lower the potential to carry contaminants from the Project Site.

As the individual building sites within the Project Site currently are, and would be after Project construction, almost entirely covered by impervious materials, estimated infiltration of surface water and contaminants to groundwater would be minimal. Implementing source control measures required in the MS4 Permit would further decrease the risk that any water that manages to infiltrate to groundwater would be contaminated with surface pollutants.

Non-structural BMPs to address water quality would include:

- Regular sweeping of all open and planter areas, at a minimum, on a weekly basis in order to prevent dispersal of pollutants that may collect on those surfaces

- Regular pruning of the trees and shrubs in the planter areas to avoid formation of dried leaves and trigs, which can clog surface inlets and drains

- Trash and recycling containers would be used such that, if they are to be located outside, are fully enclosed and watertight in order to prevent contact of stormwater with wastewater, which can be a potential source of bacteria and other pollutants in runoff

- Educational training materials for the owners, to be made aware of the structural BMP installed in the Project, their maintenance requirements; and materials to brief owners about chemical management and proper methods of handling and disposing of wastes

- Minimization of pesticide and fertilizer use, to the maximum extent practicable with on-site landscaping

With implementation of these non-structural BMPs, in combination with structural BMPs required by the MS4 Permit and LAMC Section 64.70 (Storm Water and Urban Runoff Pollution), the proposed Project would reduce potential operational water quality impacts by filtering out pollutants prior to discharge from the Project Site, such that Project operations and maintenance would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality. Therefore, water quality impacts would be less than significant.

(2) Mitigation Measures

In order to reduce water quality impacts, Mitigation Measure **MM-HAZ-1**would be required for the Project. See Section IV.G of this Draft EIR for complete mitigation measures.

(3) Level of Significance after Mitigation

In addition to ensuring proper characterization and disposal, as described in Section IV.G of this Draft EIR, implementation of the Hazardous Substance Management, Handling, Storage, Disposal, and Emergency Response Plan (Mitigation Measure **MM-HAZ-1**), the Medical Waste Management Plan (Mitigation Measure **MM-HAZ-2**), and the Hazardous Materials Business Plan (Mitigation Measure **MM-HAZ-3**) would ensure such pollutants generated by Project operations and/or wastes used on site are not exposed to stormwater runoff. Through compliance with Mitigation Measures **MM-HAZ-1, MM-HAZ-2**, and **MM-HAZ-3**, impacts to water quality would be 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 LUST cleanup site is listed on the Geotracker database at the intersection of Sunset Boulevard and North Mariposa Avenue.[30] The ten monitoring wells associated with this site had groundwater depths between 20 and 30 feet below ground surface between 2006 and 2012. An additional LUST cleanup site located at the intersection of North Vermont Avenue and Hollywood Boulevard records groundwater depths between 20 and 30 feet as recently as 2018. However, since the Project Site has, and would have, mostly impervious surfaces, construction and operation of the Project is not expected to negatively affect groundwater recharge in the area, or the general direction and velocity of groundwater movement within the underlying groundwater

[30] SWRCB, GeoTracker, May 5, 2020.

table. As such, construction and implementation of the proposed Project would not impact the validity or effectiveness of past, current, or future investigation and/or remediation efforts at the LUST cleanup site.

The Project does not include direct extraction of groundwater during construction or operation of the proposed Project, and no direct adverse impacts to groundwater supply are expected to occur as a result of Project construction or operation. While LADWP uses groundwater as a part of its supply resources, the Project is expected to increase demand by 140 acre-feet per year, an increase of less than 0.1 percent in service area demand (Appendix G-1 of this Draft EIR). As a result, impacts to groundwater supply would be **less than significant**. In addition, water conservation-related Project Design Features **PDF-HYD-1** through **PDF-HYD-8** would be implemented as part of the Project. These PDFs include high-efficiency toilets, no-flush urinals, low-flow showerheads, efficient water heating systems, and a water-efficient landscape irrigation plan. **PDF-HYD-1** through **PDF-HYD-8** would further reduce operational impacts associated with groundwater supply, as these features would reduce the Project water demand. **As such, the Project would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the Project would impede sustainable management of the groundwater basin. Impacts would be less than significant.**

(2) Mitigation Measures

Impacts regarding a decrease in groundwater supplies or interference with groundwater recharge were determined to be less than significant without mitigation. Therefore, no mitigation measures are required.

(3) Level of Significant after Mitigation

Impacts regarding a decrease in groundwater supplies or interference with groundwater recharge were determined to be less than significant without mitigation. Therefore, no mitigation measures were required, and the impact level remains less than significant.

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

i. result in a 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 existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?

iv. impede or redirect flood flows?

(1) Impact Analysis

(a) Erosion or Siltation On- or Off-Site

The proposed Project would redevelop a currently developed site that includes asphalt-streets, pavements, and buildings. The Project Site does not contain any streams or rivers having the potential to be altered by the Project. Additionally, as no increases in impermeability, impermeable surface area, or slope are planned for the Project, no increases in stormwater runoff are expected. Stormwater management practices, including stormwater capture, infiltration, and reuse, would be implemented as mandated by the City's LID Ordinance, resulting in a decrease in the rate and amount of surface runoff from the Project Site. As discussed under Threshold a), the proposed Project meets the definition of a redevelopment project and thus would be required to control runoff volume and rates emanating from the Project Site by: (1) minimizing paved surfaces and employing non-structural pollutant control BMPs (as listed in Threshold a), (2) controlling runoff from areas using structural BMPs (e.g., infiltration, bioretention, and/or rainfall harvest and re-use), and (3) ensuring all structural BMPs are monitored and maintained during operations. **These BMPs would reduce stormwater runoff flow velocities and volume, thus minimizing the potential for off-site erosive scour and siltation of downgradient drainages. As a result, impacts would be less than significant.**

(b) Increase Rate or Amount of Surface Runoff

The proposed Project is located in an area that is currently fully developed with impervious urban surfaces, and no increases in slope are planned. As such, any planned development would not increase impermeability of the building sites and therefore, would not increase the rate or amount of surface runoff. In addition, as described above, the City's LID Ordinance mandates stormwater management practices intended to encourage stormwater capture, infiltration, and reuse, resulting in a decrease in the rate and amount of surface runoff from the Project Site. As discussed under Threshold a), the proposed Project meets the definition of a redevelopment project and thus would be required to control runoff volume and rates emanating from the Project Site by: (1) minimizing the impervious surface area and implementing source control measures, (2) controlling runoff from impervious surfaces using structural BMPs (e.g., infiltration, bioretention, and/or rainfall harvest and re-use), and (3) ensuring all structural BMPs are monitored and maintained during Project operations. **These BMPs would prevent a substantial increase in the rate or**

amount of surface runoff in a manner which would result in on- or off-site flooding. As a result, impacts would be less than significant.

(c) Exceed Capacity of Existing or Planned Stormwater Drainage System

Under existing conditions, stormwater runoff from the building sites is conveyed to curb drains of varying diameters to a public stormwater system via catch basin intakes (Figure IV.H-4, Topography and Water Infrastructure). These intakes connect to the public storm drain system running north–south on Vermont Avenue (45-inch reinforced concrete pipe), south along Edgemont Street to Sunset Boulevard (24-inch to 30-inch reinforced concrete pipe), east–west along Sunset Boulevard (30-inch to 33-inch brick closed channel), or running north–south along Kenmore Avenue (42-inch reinforced concrete pipe). As currently developed, the Project Site is almost completely impervious (roofs, asphalt, parking, driveways, sidewalks).

Stormwater runoff from the proposed development would continue to be conveyed to the public streets via roof downspouts, site area drains, and catch basins, in a similar manner as the existing drainage. As described above, the City's LID Ordinance mandates stormwater management practices to encourage stormwater capture, infiltration, and reuse, resulting in a decrease in the rate and amount of surface runoff from the Project Site, in comparison to existing conditions. Because runoff from the existing Project Site is being accommodated by existing stormwater infrastructure, it is expected that the stormwater volumes from the Project Site during operations (which would decrease slightly relative to existing conditions) would also be sufficiently accommodated by existing infrastructure.

Regarding runoff pollutants, the Project's landscaping and biofiltration systems would eliminate runoff pollutants to the extent practicable prior to discharge to the storm drainage system. As discussed under Threshold a), for sites left temporarily undeveloped with disturbed soil during the phased Project construction (i.e., Sites 3 and 4), the SWPPP would require that BMPs be sufficient to temporarily stabilize those sites to prevent sediment or other contaminants from leaving the sites. These BMPs could include fiber rolls, silt fencing, grading, and perimeter controls to prevent any disturbed soil from exiting the vacant site. These BMPs would be further refined and/or added to as necessary by a qualified SWPPP professional to meet the performance standards in the Construction General Permit. **As a result, the Project would not create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff. Impacts would be less than significant.**

(d) Impede or Redirect Flow

The Project site does not contain any streams or rivers having the potential to be altered by the proposed Project. These sites are currently fully developed within a highly urbanized area. Additionally, the Project Site is located outside of any Federal Emergency Management Agency 100-year flood hazard zone.[31] **As such, the proposed Project would not impede or redirect flood flows, and impacts would be less than significant.**

(2) Mitigation Measures

Impacts on existing drainage patterns that could cause increased siltation and flooding on- or off-site, create or contribute to the exceedance of the existing or planed stormwater drainage system or provide substantial additional sources of polluted runoff, or impede or redirect flow 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 could cause increased siltation and flooding on- or off-site, create or contribute to the exceedance of the existing or planed stormwater drainage system or provide substantial additional sources of polluted runoff, or impede or redirect flow were determined to be less than significant without mitigation. Therefore, no mitigation measures were required, and the impact level remains less than significant.

Threshold (d): Would the Project risk release of pollutants due to project inundation on- or off-site in flood hazard, tsunami, or seiche zones?

As discussed in Section VI.6, Effects Not Found To Be Significant, of this Draft EIR, and in the Initial Study (Appendix A-1 of this Draft EIR), the Project is not expected to be subject to hazards associated with flooding, seiche, tsunami, or mudflow. Thus, the Project would have a less than significant impact with respect to Threshold d). **Impacts would be less than significant with respect to flooding, tsunami, or seiche zones.**

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

The 2019 updates to the State CEQA Guidelines contain an additional threshold in the Hydrology and Water Quality section that did not exist at the time of the establishment of the 2006 L.A. CEQA Thresholds. The Project overlies the Hollywood Subbasin of the Coastal

[31] Federal Emergency Management Agency, Firm Panel No. 06037C1610F, effective September 26, 2008.

Plain of Los Angeles Groundwater Basin, DWR Basin No. 4-011.02.[32] DWR, however, has designated this Subbasin as very low priority.[33] Thus, the Coastal Plain of Los Angeles Groundwater Basin and any groundwater extracted from it are not subject to a sustainable groundwater management plan, which are only mandated by the Sustainable Groundwater Management Act for DWR Basins determined to be of medium to high priority.

As noted above, the Project is not expected to violate any water quality standards, and measures would be taken both during construction and throughout operation to prevent potential contaminants from leaving the site by runoff. Through compliance with RWQCB requirements and a NPDES permit, and implementation of a SWPPP (construction phase) and LID design, the Project would not conflict with or obstruct implementation of the Los Angeles Basin Water Quality Control Plan (Basin Plan). Thus, the proposed Project would not result in substantial conflict nor obstruction of the implementation of a water quality control plan or sustainable groundwater management plan. **No impacts would occur, and no further analysis is required.**

e) Cumulative Impacts

(1) Impact Analysis

The cumulative effect of past projects—both point sources of pollution and non-point sources caused by urbanization—have resulted in substantial water quality problems in the region's major waterways. The existing impairments identified under Section 303(d) of the CWA and Table IV.H-3 represent cumulative impacts of urban development within the watersheds draining to Ballona Creek and eventually the Pacific Ocean. The pollutants causing impairments include bacteria/pathogens, metals (lead, cadmium, copper, silver, zinc) and toxic chemicals (cyanide, DDT, dieldrin, PAHs, PCBs) among others. Therefore, the overall cumulative impact is significant.

For the most part, the primary pollutants of concern for the proposed Project do not include those for which the downstream receiving waters are impaired. Pollutants of concern associated with the proposed Project would be associated with the construction phase (e.g., sediment, fuels, litter), private vehicle use (e.g., any leakage of grease/oils), landscaping/grounds work (e.g., improper/excessive use of pesticides, herbicides, and/or fertilizers), and/or trash (e.g., due to improper waste disposal). Trash and/or fertilizers, however, could indirectly contribute to a bacteria, pathogen or dissolved oxygen problem by contributing to excessive algae growth and/or eutrophication. The release of such pollutants, however, would be highly localized, periodic in nature, and minor in magnitude; especially when compared to the total volume of stormwater discharges that would be entering the

[32] California DWR, California's Groundwater. Bulletin 118 Interim Update, December 22, 2016.
[33] California DWR, Sustainable Groundwater Management Act 2018 Basin Prioritization Process and Results, January 2019.

Project's receiving waters from the whole watershed (i.e., Ballona Creek). Furthermore, such impacts would be avoided or substantially minimized through compliance with applicable laws, rules and regulations relating to surface water and groundwater, including, but not limited to the terms and conditions of the regional NPDES permits, the Los Angeles Municipal Code Section 64.70, and the ordinance codes of other authorities in the region—which all require implementation of a SWPPP and LID design for development and redevelopment projects.

For these reasons, the proposed Project's contribution to impacts on hydrology and water quality would be not be cumulatively considerable. Cumulative impacts would be considered less than significant.

(2) Mitigation Measures

Cumulative impacts regarding hydrology and water quality were determined to be less than significant without mitigation. Therefore, no mitigation measures are required.

(3) Level of Significance after Mitigation

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