

IV. Environmental Impact Analysis

H. Hydrology and Water Quality

1. Introduction

This section of the Draft EIR evaluates the potential impacts of the proposed Project to hydrology and water quality conditions in the City of Los Angeles. The analysis presented in this section is based, in part, on information obtained from the following:

- Low Impact Development for the South Bay Industrial Center, Thienes Engineering Inc., September 6, 2019. (Appendix G2)
- Preliminary Hydrology Calculations for the South Bay Industrial Center, Thienes Engineering Inc., October 28, 2019. (Appendix G1)
- Phase I Environmental Site Assessment Report Walmart Chapman Site 15134 South Vermont Avenue and 747, 831, 841 and 861 West Redondo Beach Boulevard, SCS Engineer, October 2016. (Appendix F1)
- Phase II Soil and Soil Vapor Investigation Report, Walmart Chapman Site, 15134 South Vermont Avenue and 747, 831, 841 and 861 West Redondo Beach Boulevard, Los Angeles, California 90247, SCS Engineers, November 8, 2016. (Appendix F2)
- Soil Management Plan Redondo Beach Blvd/Vermont Ave Development, SCS Engineering, November 12, 2019. (Appendix F3)

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
- National Flood Insurance Program
- Safe Drinking Water Act
- Porter-Cologne Water Quality Act (California Water Code)
- California Antidegradation Policy
- California Toxics Rule
- California Water Plan

- NPDES Permit Program
- Sustainable Groundwater Management Act of 2014
- Water Replenishment District of Southern California
- Los Angeles Region: Basin Plan for Coastal Watersheds of Los Angeles and Ventura Counties
- Dominguez Watershed Management Master Plan
- Stormwater Program – Los Angeles County MS4 Permit Citywide Implementation
- Los Angeles County Department of Public Works Hydrology Manual
- Los Angeles County Department of Public Works Low Impact Development Standards Manual
- Stormwater Quality Management Plan
- Los Angeles Municipal Code Section 62.105, Construction “Class B” Permit
- Los Angeles Municipal Code Sections 12.40 through 12.43, Landscape Ordinance
- Los Angeles Municipal Code section 61.02, Abatement of Erosion or Flood Hazard
- Los Angeles Municipal Code Section 64.70, Stormwater and Urban Runoff Pollution Control Ordinance
- Los Angeles Municipal Code Section 64.72, Stormwater Pollution Control Measures for Development Planning and Construction Activities
- Los Angeles Municipal Code Section 91.7013, Erosion Control and Drainage Devices
- City of Los Angeles Water Quality Compliance Master Plan for Urban Runoff
- City of Los Angeles Stormwater Program
- Low Impact Development Ordinance (No. 181,899)

(1) Federal

a. *Clean Water Act*

The Clean Water Act establishes regulations to control the discharge of pollutants into the waters of the United States and regulates water quality standards for surface waters (U.S. Code, Title 33, §§ 1251 et seq.). Under the Clean Water Act, the U.S. Environment Protection Agency (USEPA) is authorized to set wastewater standards and runs the National Pollutant Discharge Elimination System (NPDES) permit program. Under the NPDES program, permits are required for all new developments that discharge directly into Waters of the United States. The federal Clean Water Act requires wastewater treatment of all effluent before it is discharged into surface waters. NPDES permits for such discharges in the project region are issued by the Los Angeles Regional Water Quality Control Board (LARWQCB).

b. Antidegradation Policy

The Federal Antidegradation Policy was adopted as part of the 1972 amendments to the Federal Water Pollution Control Act (the Clean Water Act)¹. The Federal Antidegradation Policy was enacted to compel the states to enact policies to fully protect existing instream water uses.

c. National Flood Insurance Program

The Federal Emergency Management Agency (FEMA) administers the National Flood Insurance Program (NFIP) to provide subsidized flood insurance to communities that comply with FEMA regulations limiting development in floodplains. FEMA also issues Flood Insurance Rate Maps (FIRMs) that identify which land areas are subject to flooding. These maps provide flood information and identify flood hazard zones in the community. The design standard for flood protection is established by FEMA. FEMA's minimum level of flood protection for new development is the 100-year flood event, also described as a flood that has a 1-in-100 chance of occurring in any given year.

As required by the FEMA regulations, all development constructed within the Special Flood Hazard Zone (as delineated on the FIRM) must be elevated so that the lowest floor is at or above the base flood elevation level. Per these regulations, if development in these areas occurs, a hydrologic and hydraulic analysis must be performed prior to the start of development and must demonstrate that the development does not cause any rise in base flood elevation levels, as no rise is permitted within regulatory floodways. Upon completion of any development that changes existing Special Flood Hazard Area boundaries, the NFIP directs all participating communities to submit the appropriate hydrologic and hydraulic data to FEMA for a FIRM revision, as soon as practicable, but not later than six months after such data becomes available.

d. Safe Drinking Water Act

The Safe Drinking Water Act (SDWA), the principal federal law intended to ensure safe drinking water to the public, was enacted in 1974 and has been amended several times since it came into law. SDWA authorizes the USEPA to set national standards for drinking water, called the National Primary Drinking Water Regulations, to protect against both naturally occurring and man-made contaminants. These standards set enforceable maximum contaminant levels in drinking water and require all water providers in the United States to treat water to remove contaminants, except for private wells serving fewer than 25 people. In California, the State Water Resources Control Board (SWRCB) conducts most enforcement activities. If a water system does not meet standards, it is the water supplier's responsibility to notify its customers.

(2) State

a. Porter-Cologne Water Quality Control Act

Under the Porter-Cologne Water Quality Control Act (California Water Code Sections 13000 et seq.), which was passed in California in 1969 and amended in 2013, the SWRCB has authority

¹ *United States Environmental Protection Agency. 1987, U.S. Environmental Protection Agency Region 9 Guidance on Implementing the Antidegradation Provisions of 40 CFR 131.12.*

over State water rights and water quality policy. This Act divided the State into nine regional basins, each under the jurisdiction of a Regional Water Quality Control Board (RWQCB) to oversee water quality on a day-to-day basis at the local and regional level. RWQCBs engage in a number of water quality functions in their respective regions. RWQCBs regulate all pollutant or nuisance discharges that may affect either surface water or groundwater. The Project Site and the City of Los Angeles are within the jurisdiction of the LARWQCB.

b. California Antidegradation Policy

The California Antidegradation Policy applies to the disposal of waste to high-quality surface water and groundwater. This policy requires that the quality of existing high-quality water be maintained unless the State finds that any change will be consistent with maximum benefit to the people of the State, will not unreasonably affect present and anticipated beneficial use of such water, and will not result in water quality less than that prescribed in policies as of the date on which such policies became effective. The California Antidegradation Policy also requires best practicable treatment or control of discharges to high-quality waters to assure that pollution or nuisance will not occur, and that the highest water quality consistent with maximum benefit to the people of the State will be maintained.²

c. California Toxics Rule

On May 18, 2000, the USEPA promulgated numeric water quality criteria for priority toxic pollutants and other provisions for water quality standards to be applied to waters in the State of California.

The rule fills a gap in California water quality standards that was created in 1994 when a State court overturned the State's water quality control plans containing water quality criteria for priority toxic pollutants. Thus, the State of California has been without numeric water quality criteria for many priority toxic pollutants as required by the Clean Water Act, necessitating this action by USEPA. These federal criteria are legally applicable in the State of California for inland surface waters, enclosed bays and estuaries for all purposes and programs under the Clean Water Act.³

d. California Water Plan

The California Water Plan (the 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 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 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 California Water Plan Update 2018 was updated in June 2019.⁴ The Plan also identifies and evaluates existing and proposed statewide demand management and water supply

² *California Water Boards, June 6, 2018, Antidegradation Plans and Policies.*

³ *U.S. Environmental Protection Agency. September 19, 2015. The California Toxics Rule (CTR).*

⁴ *California Department of Water Resources, California Water Plan Update 2018, June 2019.*

augmentation programs and projects to address the State's water needs. The goal for updating the 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.

e. SWRCB Order No. 2012-0006-DWQ

The SWRCB has adopted a Statewide Construction General Permit (Order 2009-0009-DWQ as amended by Order No. 2010-0014-DWQ and 2012-006-DWQ), for stormwater discharges associated with construction activity. These regulations prohibit the discharge of stormwater from construction projects that include one acre or more of soil disturbance. Construction activities subject to this permit include clearing, grading, and other disturbance to the ground, such as stockpiling or excavation, that results in soil disturbance of at least one acre of total land area. Individual developers are required to submit Permit Registration Documents (PRDs) to the SWRCB for coverage under the NPDES permit prior to the start of construction. The PRDs include a Notice of Intent (NOI), risk assessment, site map, Stormwater Pollution Prevention Plan (SWPPP), annual fee, and a signed certification statement. The PRDs are submitted electronically to the SWRCB via the Stormwater Multiple Application and Report Tracking System (SMARTS) website.

The NPDES Construction General Permit requires all dischargers to (1) develop and implement a SWPPP, which specifies best management practices (BMPs) to be used during construction of the project; (2) eliminate or reduce non-storm water discharge to stormwater conveyance systems; and (3) develop and implement a monitoring program of all specified BMPs. The two major objectives of the SWPPP are to (1) help identify the sources of sediment and other pollutants that affect the water quality of stormwater discharges and (2) to describe and ensure the implementation of BMPs to reduce or eliminate sediment and other pollutants in stormwater as well as non-storm water discharges.

f. Sustainable Groundwater Management Act of 2014

The Sustainable Groundwater Management Act of 2014 (SGMA) requires the designation of groundwater sustainability agencies (GSAs) by one or more local agencies and the adoption of groundwater sustainability plans (GSPs) for basins designated as medium- or high-priority by the California Department of Water Resources (DWR). SGMA grants new powers to GSAs, including the power to adopt rules, regulations, ordinances, and resolutions; regulate groundwater extractions; and to impose fees and assessments. SGMA also allows the State Water Resources Control Board (SWRCB) to intervene if local agencies will not or do not meet the SGMA requirements, in addition to mandating that critically overdrafted basins be sustainable by 2040, and medium- or high-priority by 2042.

(3) Regional

a. Water Replenishment District of Southern California

The City of Los Angeles is included within the Water Replenishment District of Southern California (WRD). The WRD service area is categorized as a High Priority basin and pursuant to the SGMA

must either: (a) form a groundwater sustainability agency (GSA) to prepare and submit a groundwater sustainability plan; or directly submit an Alternative Analysis in lieu of forming a GSA. The WRD, in conjunction with key stakeholders including the Los Angeles Department of Water and Power (LADWP), has prepared and submitted an Alternative Analysis that satisfies the requirements of the SGMA.⁵ 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. Los Angeles Region Basin Plan for the Coastal Watersheds of Los Angeles and Ventura Counties

As required by the California Water Code, the LARWQCB has adopted the Water Quality Control Plan, Los Angeles Region: Basin Plan for the Coastal Watersheds of Los Angeles and Ventura Counties (Basin Plan), which is designed to preserve and enhance water quality and protect the beneficial uses of all regional waters. Specifically, the Basin Plan:

- Designates beneficial uses for surface and ground waters,
- Sets narrative and numerical objectives that must be attained or maintained to protect the designated beneficial uses and conform to the State's antidegradation policy, and
- Describes implementation programs to protect all waters in the Region.

In addition, the Basin Plan incorporates (by reference) all applicable State and RWQCB plans and policies and other pertinent water quality policies and regulations.

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.⁶

c. Dominguez Watershed Management Master Plan

The purpose of the Dominguez Watershed Management Master Plan (DWMMP) is to provide background and guidance to assist stakeholders with watershed management for the Dominguez Watershed. Watershed management is the integration and coordination of activities that affect natural resources and water quality within a geographically defined drainage area. Watershed management fulfills an important planning need in that it strives to balance services such as flood

⁵ Board of Directors of the Water Replenishment District of Southern California, Resolution No. 16-1048, December 8, 2016.

⁶ California Water Boards – Los Angeles (LARWQCB), 2019. LARWQCB Basin Plan.

protection, water conservation, and recreation with conscientious management to reduce pollution of waters and to protect and enhance natural resources.⁷

d. Los Angeles County Municipal Storm Water System (MS4) Permit

On November 8, 2012, the LARWQCB adopted a Municipal Separate Stormwater Sewer System (MS4) Permit for discharges from the coastal watersheds of Los Angeles County, except those discharges originating from the City of Long Beach MS4. The MS4 permit (Order No. R4-2012-0175, NPDES No. CAS004001) was subsequently amended by Order No. R4-2012-0175-A01 on September 8, 2016. The municipal discharges of storm water and non-storm water by the Los Angeles County Flood Control District, the County of Los Angeles, and 84 incorporated cities within the coastal watersheds of Los Angeles County with the exception of the City of Long Beach are subject to waste discharge requirements as set forth by this MS4 permit.

e. Los Angeles County Department of Public Works 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' (LACDPW) 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 are required to have a storm drain conveyance system capable of conveying flow from a 50-year storm event.⁸ 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.

f. Los Angeles County Department of Public Works Low Impact Development Standards Manual

The County of Los Angeles prepared the 2014 Low Impact Development Standards Manual (LID Standards Manual) to comply with the requirements of the MS4 Permit for stormwater and non-stormwater discharges. The LID Standards Manual provides guidance for the implementation of stormwater quality control measures in designated new development and redevelopment projects with the intention of improving water quality and mitigating potential water quality impacts from stormwater and non-stormwater discharges. Applicable projects are mandated to retain 100 percent of the stormwater quality design volume on-site⁹ through infiltration, evapotranspiration, stormwater runoff harvest and use, or a combination thereof unless it is demonstrated that it is

⁷ Dominguez Watershed Advisory Council. April 2004. *Dominguez Watershed Management Master Plan*.

⁸ Los Angeles County Department of Public Works, *Hydrology Manual*, January 2006.

⁹ The design storm, from which the SWQDv is calculated, is defined as the greater of:

- The 0.75-inch, 24-hour rain event; or
- The 85th percentile, 24-hour rain event

technically infeasible to do so.¹⁰ As such, the water quality of runoff from such projects is improved when compared to runoff from undeveloped or historic uses.

g. Stormwater Quality Management Plan (SQMP)

The MS4 Permit requires co-permittees to prepare a Stormwater Quality Management Plan (SQMP) specifying the BMPs that will be implemented to reduce the discharge of pollutants in stormwater to the maximum extent practicable. The SQMP emphasizes pollution prevention through education, public outreach, planning, and implementation of source control BMPs first, followed by structural and treatment control BMPs.

(4) Local

a. Los Angeles Municipal Code (LAMC)

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

Section 61.02, *Abatement of Erosion or Flood Hazard*, of the LAMC relates to grading projects that will not be completed prior to the commencement of the rainy season. For such projects, the Board of Public Works may require that the permittee prepare and submit plans for the installation of temporary erosion control devices not later than September 15 preceding the rainy season. The plans shall be prepared in accordance with standards maintained by the City Engineer.

Section 64.70, *Stormwater and Urban Runoff Pollution Control Ordinance (Ordinance No.172,176)*, prohibits the entry of illicit discharges into the municipal storm drain system and gives the City legal authority to enforce the NPDES permit and take corrective actions with serious offenders. The ordinance was passed in 1998. To ensure that local businesses are doing their part in keeping Los Angeles safe, healthy and clean, stormwater inspectors conduct annual inspections at local industrial and commercial businesses, including restaurants, gas stations and vehicle maintenance facilities whose daily business activities may negatively impact regional water quality.

Section 64.72, *Stormwater Pollution Control Measures for Development Planning and Construction Activities*, of the LAMC contains requirements for construction activities and facility

¹⁰ *Los Angeles Public Works Department. February, 2014. Low Impact Development Standards Manual.*

operations of development and redevelopment projects to comply with the Land Development requirements of the MS4 permit though integrating LID practices and standards for stormwater pollution mitigation, and maximize open, green and pervious space on all developments and redevelopments consistent with the City's landscape ordinance and other related requirements in the Development Best Management Practices Handbook.

Section 91.7013, *Erosion Control and Drainage Devices*, of the LAMC includes specifications for erosion BMPs with the purpose of safeguarding life, limb, property and the public welfare by regulating grading on private property.

Section 91.106.4, Permit Issuance, of the LAMC states that the Department of Building and Safety shall require applicants, as a condition for issuing a grading or building permit, to incorporate into the plan documents best management practices necessary to control stormwater pollution from sediments, erosion, and construction materials leaving the construction site. Such requirements shall be in accordance with the provisions contained in the "Development Best Management Practices Handbook, Part A Construction Activities" adopted by the Board of Public Works as authorized by Section 64.72 of the Los Angeles Municipal Code.

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

The Water Quality Control Master Plan for Urban Runoff was developed by the Los Angeles Sanitation Watershed Protection Division in collaboration with stakeholders as a watershed-based water quality master plan designed to reduce pollution from urban runoff in the City. The master plan's guidelines and directions apply to the entire watershed and has three strategies:

- Water Quality Management Initiative for project identification;
- Citywide Coordination Initiative to develop ordinances and collaborative approaches within and among agencies;
- Outreach Initiative for source control.

Further, the Water Quality Control Master Plan for Urban Runoff includes an Action Plan which identifies high priority items including the development of multiple Total Maximum Daily Load Implementation Plans and watershed specific Water Quality Management Plans.

c. City of Los Angeles Stormwater Program

The City of Los Angeles' Stormwater Program's mission is to protect the beneficial uses of receiving waters while complying with all flood control and pollution abatement regulations. The Stormwater Program focuses on both flood control and pollution abatement and employs a multi-pronged approach, utilizing education, engineering, enforcement and evaluation to ensure Los Angeles' compliance with federal, state and local regulations and reduce the amount of stormwater pollution flowing into and through regional waterways.

d. *Low Impact Development (LID) Ordinance*

In November 2011, the City of Los Angeles adopted the Stormwater Low Impact Development (LID) Ordinance (Ordinance No. 181899, updated in September 2015 by Ordinance No. 183833) with the stated purpose of:

- Requiring the use of LID standards and practices in future developments and redevelopments to encourage the beneficial use of rainwater and urban runoff;
- Reducing stormwater/urban runoff while improving water quality;
- Promoting rainwater harvesting;
- Reducing offsite runoff and providing increased groundwater recharge;
- Reducing erosion and hydrologic impacts downstream; and
- Enhancing the recreational and aesthetic values in the community.

The MS4 Permit also adopts LID principals and requires development and redevelopment projects to incorporate similar requirements as those outlined in the City's LID Ordinance.

The Stormwater LID Ordinance requires LID measures be incorporated into the design of all development and redevelopment projects that have a land disturbance activity and add, create or replace 500 square feet or more of impervious area. The on-site stormwater management techniques must be properly sized, at a minimum, to treat the stormwater quality design volume without any stormwater runoff leaving the site.¹¹ As such, the water quality of runoff from such projects is improved when compared to runoff from undeveloped or historic uses.

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. 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/bioretenion 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.¹²

¹¹ *City of Los Angeles. 2019. LID Ordinance History. Accessed on February 7, 2020 at https://www.lacitysan.org/san/faces/home/portal/s-lsh-wwd/s-lsh-wwd-wp/s-lsh-wwd-wp-lid/s-lsh-wwd-wp-lid-oh?_adf.ctrl-state=tdf5tIs5j_5&_afLoop=974757477437659#!.*

¹² *City of Los Angeles Department of Public Works, Watershed Protection Division, May 9, 2016, Planning and Land Development Handbook for Low Impact Development (LID).*

b. Existing Conditions

(1) Regional Drainage

The LARWQCB encompasses all coastal watersheds and drainages flowing to the Pacific Ocean between Rincon Point (on the coast of western Ventura County) and the eastern Los Angeles County line. In addition, the LARWQCB includes all coastal waters within three miles of the continental and island coastlines. The Project Site is located within the Dominguez Watershed, which encompasses approximately 133 square miles of land and water. Approximately 81 percent of the watershed is developed. Residential development covers nearly 40 percent of the watershed, and another 41 percent is made up by industrial, commercial, and uses associated with the transportation system. With a population of nearly 1 million, considerable demands are made on infrastructure and services within the watershed.

Existing efforts to address the constraints of the watershed are included in the Dominguez Watershed Management Master Plan. The DWMMP was developed by the Dominguez Watershed Advisory Council, which consisted of local governmental representatives, environmental groups, regulating agencies, members of business and industry, water and sewer service providers and private citizens.¹³

(2) Local Drainage

The Project Site is located within the service area of the LACDPW. The LACDPW serves 84 incorporated cities and unincorporated communities of the County of Los Angeles. Flood risk management in Los Angeles County is the primary responsibility of the Los Angeles County Flood Control District (LACFCD), the Army Corps of Engineers, and the 89 Cities. The LACFCD, a special district regional agency, has the largest channel and storm drain system in the county and encompasses more than 2,700 square miles and approximately 2.1 million land parcels within 6 major watersheds. It includes drainage infrastructure within 86 incorporated cities, as well as the unincorporated County areas. This includes 14 major dams and reservoirs, 483 miles of open channel, 27 spreading grounds, 3,330 miles of underground storm drains, 47 pump plants, 172 debris basins, 27 sediment placement sites, 3 seawater intrusion barriers and an estimated 82,000 catch basins. The U.S. Army Corps of Engineers has 4 major dams and open channels to control storm water runoff. Most cities have their own smaller drainage system. The largest city-owned drainage system belongs to the City of Los Angeles.¹⁴

As part of the LACDPW's stormwater reduction program, designated City Stormwater Coordinators are responsible for conducting outreach to the local community about stormwater pollution prevention including the general public, business and industry. In addition, the

¹³ Los Angeles County Public Works Department (LACPWD). Accessed on October 21, 2019a. Dominguez Watershed. <https://dpw.lacounty.gov/wmd/watershed/dc/>

¹⁴ Los Angeles Public Works Department. Accessed on October 21, 2019b. Flood Control Infrastructure. <https://dpw.lacounty.gov/landing/wr/stormwatermgmt/floodControlInf.cfm>; Los Angeles Public Works Department. Accessed on October 21, 2019c. Los Angeles County Flood Control District. <https://dpw.lacounty.gov/LACFCD/web/>

Stormwater Coordinators work with residents to prevent illegal dumping into storm drains, coordinate stormwater stenciling and facilitate work on clogged drains.¹⁵

(3) Surface Water Quality

Section 303(d) of the 1972 Federal Clean Water Act requires states to identify water bodies that do not meet water quality objectives and are not supporting their beneficial uses. Each state must submit an updated list, called the 303(d) list, to the USEPA every two years. In addition to identifying the water bodies that are not supporting beneficial uses, the list also identifies the pollutant or stressor causing impairment and establishes a priority for developing a control plan to address the impairment. The list also identifies water bodies where 1) a Total Maximum Daily Load (TMDL) has been approved by the USEPA and an implementation is available, but water quality standards are not yet met, and 2) water bodies where the water quality problem is being addressed by an action other than a TMDL and water quality standards are not yet met.

The 93-inch stormwater lateral adjacent to the site drains into the Dominguez Channel, which subsequently drains into the Los Angeles Harbor. Currently, the Dominguez Channel is listed on the California 303(d) list as a Category 5 water body, which is defined as “a water segment where standards are not met and a TMDL is required, but not yet completed, for at least one of the pollutants listed.” The water quality impairments listed for the Dominguez Channel are ammonia, bacteria, lead, sediment toxicity, zinc, DDT¹⁶, Dieldrin¹⁷, benthic community effect, Benzo(a)anthracene¹⁸, Benzo(a)pyrene¹⁹, Chlordane²⁰, Chrysene²¹, Phenanthrene²², and Pyrene²³. The available information from the LARWQCB indicates TMDL completion dates of 2019 for all contaminants except sediment toxicity. The TMDL completion date for sediment toxicity is 2021.²⁴

¹⁵ Los Angeles Public Works Department. Accessed on October 21, 2019. City Stormwater Coordinators. https://ladpw.org/PRG/StormWater/Page_03_cf1.cfm#LosAngeles

¹⁶ DDT is a synthetic organic compound used as an insecticide.

¹⁷ Dieldrin is a synthetic organic compound used as an insecticide.

¹⁸ The main source of Benz(a)anthracene in water is discharged substance from research laboratories.

¹⁹ Benzo(a)pyrene is found in oil and gas products.

²⁰ Chlordane is used as a pesticide.

²¹ Chrysene is formed when gasoline, garbage, or any animal or plant material burns, and is usually found in smoke and soot. This chemical combines with dust particles in the air and is carried into water. It is also found in creosote, a dark brown oil distilled from coal tar and used as a wood preservative.

²² Phenanthrene is used to make dyes, plastics and pesticides, explosives and drugs.

²³ Pyrene is used to make dyes, plastics and pesticides.

²⁴ State Water Resources Control Board. 2019, Final 2012 California Integrated Report (Clean Water Act Section 303(d) List / 305(b) Report).

(4) Groundwater Hydrology

The City of Los Angeles overlies the Los Angeles Coastal Plain Groundwater Basin (Basin). The Basin comprises the Hollywood, Santa Monica, Central, and West Coast subbasins. The Project Site is in the West Coast subbasin.²⁵

The West Coast subbasin is bounded on the north by the Ballona Escarpment, on the east by the Newport-Inglewood fault zone, and on the south and west by the Pacific Ocean and consolidated rocks of the Palos Verdes Hills. Natural replenishment of the subbasin's groundwater supply is largely limited to underflow from the Central subbasin through and over the Newport-Inglewood fault zone. Water spread in the Central subbasin percolates into aquifers there, and eventually some crosses the Newport-Inglewood fault to supplement the groundwater supply in the West Coast subbasin. Minor replenishment to the West Coast subbasin occurs from infiltration of surface inflow from both the Los Angeles and San Gabriel Rivers into the uppermost aquifers. Other minor sources of recharge by infiltration from the surface include return irrigation water from fields and lawns, industrial waters, and other applied surface waters.²⁶

(5) Groundwater Quality

According to 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. Based on LARWQCB's Basin Plan, constituents of concern listed for the West Coast subbasin include boron, chloride, sulfate, and Total Dissolved Solids.²⁷

(6) Site Hydrology

A former Arco gas station was located at the southwestern corner of the Project Site. The remaining portion of the western half of the property was formerly occupied by Virco Manufacturing, Inc. (Virco). The eastern half of the property was formerly occupied by Pacific Electriccord Company (Electriccord) and Leviton. Up until approximately 10 years ago, the Project Site was used for commercial warehouse and manufacturing uses. However, all the above-grade structures were demolished in 2010 and 2011, and there are currently no operating facilities on the Project Site. Currently on-site are the remains of the manufacturing buildings and three large concrete slab foundations surrounded by areas paved with asphalt and concrete.

The Project Site and surrounding area are generally flat with no significant slopes. There are no streams or rivers located on-site or in the Project vicinity. Runoff from the site flows into a 93-inch LACFCD storm drain (referred to as Project No. 74) adjacent to the northeast corner of the Project Site. The allowable discharge to this storm drain is 1.15 cubic feet per seconds (cfs) per acre.

²⁵ California Department of Water Resources, Accessed on September 13, 2020, SGMA Data Viewer, <https://sgma.water.ca.gov/webgis/?appid=SGMADataViewer#boundaries>.

²⁶ California Department of Water Resources, Accessed on September 13, 2020, Bulletin 118 Coastal Plain of Los Angeles County Groundwater Basin, West Coast Subbasin, February 27, 2004, https://water.ca.gov/-/media/DWR-Website/Web-Pages/Programs/Groundwater-Management/Bulletin-118/Files/2003-Basin-Descriptions/4_011_03_WestCoastSubbasin.pdf.

²⁷ California Water Boards – Los Angeles (LARWQCB), 2019. LARWQCB Basin Plan.

(7) Monitoring Wells

The Virco (western) portion of the property was filed as a Cleanup Program Site according to the SWRCB GeoTracker database. The “No Further Action” letter issued for the former Virco Site by the RWQCB indicated that three on-site monitoring wells must be abandoned. No documentation exists regarding the well abandonment procedure. These three wells are still present at the property.²⁸ The wells are required to be decommissioned and abandoned per the California Department of Water Resources Standards.

(8) On-site Soil and Soil Vapor Investigations

Contaminated soils on-site have the potential to pose a surface water contamination risk when disturbed. The Virco portion of the site was listed as a Cleanup Program Site by the LARWQCB. A total of approximately 750 tons of metals-impacted soil and 333 tons of petroleum hydrocarbon-impacted soil were excavated and removed from the former Virco portion of the property, and a “No Further Action” letter was issued in 2011. The former Electricord portion of the property was listed on Geotracker as a Leaking Underground Storage Tank Cleanup Site for potential gasoline contamination to groundwater. The case was closed on December 31, 2012. The same portion of the site is also listed on Geotracker for potential Volatile Organic Compound (VOC) contamination to groundwater. VOCs such as tetrachloroethene (PCE) and trichloroethene (TCE) impacted soil and groundwater beneath the site. In 2005, approximately 123 tons of VOCs-impacted soil were removed from the site and transported to a permitted facility. The site continues to be investigated under LARWQCB oversight.

On October 21, 2016, SCS Engineering conducted soil and soil vapor investigations at the property. PCE was detected in four soil vapor samples above the Department of Toxic Substances Control (DTSC) recommended screening level (SL) for commercial/industrial sites. Total petroleum hydrocarbons (TPH) were present in some soil samples above the SLs for commercial/industrial land uses, however none of the samples were deeper than 2 feet bgs, indicating that the TPH contamination is limited to shallow soils.

(9) Flooding and Dam 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).^{29,30}

²⁸ SCS Engineer. October 2016. *Phase I Environmental Site Assessment Report Walmart Chapman Site 15134 South Vermont Avenue and 747, 831, 841 and 861 West Redondo beach Boulevard.*

²⁹ FIRMs depict the 100-year floodplain as Zone A, Zone AO, Zone AH, Zones A1-A30, Zone AE, Zone A99, Zone AR, Zone AR/AE, Zone AR/AO, Zone AR/A1-A30, Zone AR/A, Zone V, Zone VE, and Zones V1-V30. FIRMs depict the 500-year floodplain as Zone B or Zone X. Information based on Federal Emergency Management Agency (FEMA), *Flood Insurance Rate Map*, <https://www.fema.gov/flood-insurance-rate-map-firm>, accessed September 13, 2020.

³⁰ Based on FIRM Number 06037C1610, effective on September 26, 2008.

(10) Dam 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 not located in a potential dam inundation area.³¹ With respect to tsunami hazards, the Project Site is located approximately 7 miles inland (northeast) from the Pacific Ocean and is not located in a City-designated tsunami hazard area.³² Additionally, there is intervening development in all directions around the Project Site. The Project Site is also not located near any water storage tanks or reservoirs that would be at risk of seiche during seismic activity. The nearest body of water is the Hansen Dam, approximately 25 miles to the north. A seiche at Hansen Dam would cover a much smaller area than a catastrophic failure of the dam and it is highly unlikely that any flood waters would reach the Project Site.

3. Environmental 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 the Project 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 substantial groundwater management of the basin;*

Threshold (c): *Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would: (i) result in substantial erosion or siltation on- or off-site; (ii) substantially increase the rate of 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*

³¹ City of Los Angeles Department of City Planning, November 26, 1996, General Plan Safety Element.

³² City of Los Angeles Department of City Planning, November 26, 1996, General Plan Safety Element.

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:

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.

Surface Water Quality

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

Groundwater 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 hydrology (drainage) and surface water quality. The analysis is based, in large part, on the Low Impact Development Report, the Hydrology Calculations, and the Phase I Environmental Site Assessment and Phase II Soil and Soil Vapor Investigation Report provided in Appendices G2, G1, F1 and F2 of this Draft EIR, respectively. A summary of the analytical methodology for surface water drainage, surface water quality, and groundwater 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 the proposed Project were analyzed by comparing the calculated existing runoff rates to the calculated post-Project runoff rates to determine the proposed Project's effect on drainage flows. Per the City's Special Order No. 007-1299, December 3, 1999, 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, the Hydrology Calculation Report analyzes the larger storm event threshold (i.e., the 50-year frequency design storm event).

Hydrocalc was used to calculate the storm water peak runoff flow rate for the proposed Project conditions by evaluating individual subareas (i.e., A1, A2, and B1 to B4) independent of all adjacent subareas. These drainage areas are determined by the drainage patterns and flow paths of stormwater that are tributary to a common point or area.

(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 proposed 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.

Per 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/bioretenion 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 Report is evaluated in the analysis.

(3) Water Quality and Sustainable Groundwater Management Plans

The evaluation of Project consistency with Water Quality and Sustainable Groundwater Management Plans is provided below. 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.

Groundwater monitoring and remediation work is on-going on the Project Site in coordination with LARWQCB. A detailed description of the current status is provided in Section IV-G, Hazards and Hazardous Materials, of this Draft EIR.

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 ground water quality?*

(1) Impact Analysis

a. Construction

Clearing, grading, excavation, and construction activities associated with the proposed Project have the potential to impact water quality through soil erosion and increasing the amount of silt and debris carried in runoff. Furthermore, since Total petroleum hydrocarbons was present in some soil samples above the screening levels for commercial/industrial land uses, TPH may be transported into waterways due to site runoff. The use of construction materials, such as fuels, solvents, and paints may also present a risk to surface water quality. Finally, the refueling and parking of construction vehicles and other equipment on-site during construction may result in oil, grease, or related pollutant leaks and spills that may discharge into the storm drain system.

To minimize these potential impacts, development of the Project would require compliance with the Construction General Permit (CGP) Water Quality Order No. 2012-0006-DWQ, which requires the preparation and implementation of a SWPPP. A SWPPP requires the incorporation of BMPs to control sediment, erosion, and hazardous materials contamination of runoff during construction and prevent contaminants from reaching receiving water bodies. The SWRCB mandates that projects that disturb one or more acres of land must obtain coverage under the Statewide CGP. The CGP also requires that prior to the start of construction activities, the project applicant must file PRDs with the SWRCB, which includes a NOI, risk assessment, site map, annual fee, signed certification statement, SWPPP, and post-construction water balance calculations. The construction contractor is always required to maintain a copy of the SWPPP at the site and implement all construction BMPs identified in the SWPPP during construction activities. Prior to the issuance of a grading permit, the project applicant is required to provide proof of filing of the PRDs with the SWRCB, which include preparation of SWPPP. Categories of potential BMPs that would be implemented for this project are described in Table IV.H-1, *Construction BMPs*.

**Table IV.H-1
Construction BMPs**

Category	Purpose	Examples
Erosion Controls and Wind Erosion Controls	<p>Use project scheduling and planning to reduce soil or vegetation disturbance (particularly during the rainy season)</p> <p>Prevent or reduce erosion potential by diverting or controlling drainage</p> <p>Prepare and stabilize disturbed soil areas</p>	Scheduling, preservation of existing vegetation, hydraulic mulch, hydroseeding, soil binders, straw mulch, geotextile and mats, wood mulching, earth dikes and drainage swales, velocity dissipation devices, slope drains, streambank stabilization, compost blankets, soil preparation/roughening, and non-vegetative stabilization
Sediment Controls	Filter out soil particles that have been detached and transported in water	Silt fence, sediment basin, sediment trap, check dam, fiber rolls, gravel bag berm, street sweeping and vacuuming, sandbag barrier, straw bale barrier, storm drain inlet protection, manufactured linear sediment controls, compost socks and berms, and biofilter bags
Wind Erosion Controls	Apply water or other dust palliatives to prevent or minimize dust nuisance	Dust control soil binders, chemical dust suppressants, covering stockpiles, permanent vegetation, mulching, watering, temporary gravel construction, synthetic covers, and minimization of disturbed area
Tracking Controls	Minimize the tracking of soil offsite by vehicles	Stabilized construction roadways and construction entrances/exits, and entrance/outlet tire wash
Non-Storm Water Management Controls	<p>Prohibit discharge of materials other than stormwater, such as discharges from the cleaning, maintenance, and fueling of vehicles and equipment.</p> <p>Conduct various construction operations, including paving, grinding, and concrete curing and finishing, in ways that minimize non-stormwater discharges and contamination of any such discharges.</p>	Water conservation practices, temporary stream crossings, clear water diversions, illicit connection/discharge, potable and irrigation water management, and the proper management of the following operations: paving and grinding, dewatering, vehicle and equipment cleaning, fueling and maintenance, pile driving, concrete curing, concrete finishing, demolition adjacent to water, material over water, and temporary batch plants
Waste Management and Controls (i.e., good housekeeping practices)	Manage materials and wastes to avoid contamination of stormwater.	Stockpile management, spill prevention and control, solid waste management, hazardous waste management,

**Table IV.H-1
Construction BMPs**

Category	Purpose	Examples
		contaminated soil management, concrete waste management, sanitary/septic waste management, liquid waste management, and management of material delivery storage and use

Source: California Stormwater Quality Association (CASQA), California Construction Best Management Practices Handbook, July 2012.

In addition, the City of Los Angeles requires that an erosion control plan be submitted prior to grading plan approval and the issuance of a grading permit. Implementation of the erosion control plan would address any potential erosion issues associated with the proposed grading and site preparation activities.

Furthermore, since TPH is present on-site, a soil management plan (SMP) was prepared for the proposed Project. Requirements of the SMP (see Section IV-G, Hazards and Hazardous Materials, and Appendix F3) include measures associated with:

- Health and Safety Plan
- Air Monitoring
- Proper Soil Handling
- Fugitive Dust and Vapor Control
- Excavation and Stockpiling
- Soil Monitoring
- Responding to Unknown Conditions
- Imported fill
- Post-construction Requirements

If excavation of impacted soils is conducted during the rainy season (October through April), provisions are specified to prevent off-site migration of sediment in runoff. Furthermore, if a stockpile remains on site during the rainy season, a perimeter sediment barrier, constructed of material such as straw bales or fiber roll, would be installed to prevent sediment runoff.

As discussed under Section H.2.b above, there are three on-site monitoring wells that must be decommissioned per LARWQCB's request. The on-site wells would be abandoned per the California Department of Water Resources Standards and would require a permit from the Los Angeles County Department of Public Health and completion of a DWR 188 Well Completion Form. Compliance with Department of Water Resources and County of Los Angeles standards would ensure that the wells are decommissioned properly and would not be a source of groundwater contamination. Therefore, impacts would be less than significant.

Therefore, compliance with the CGP, implementation of an erosion control plan and the SMP, and adherence to the California Department of Water Resources Standards for wells would ensure that the proposed Project would not violate any water quality standards or waste discharge requirements and impacts during the construction phase would be less than significant.

b. Operations

Once the proposed Project has been constructed, urban runoff could include a variety of contaminants that could impact water quality. Runoff from buildings and parking lots typically contain oils, grease, fuel, antifreeze, byproducts of combustion (such as lead, cadmium, nickel, and other metals), as well as fertilizers, herbicides, pesticides, and other pollutants. Furthermore, TPH contaminated soil that is determined to be below screening levels and allowed to be left in place post-construction, could contaminate runoff. Precipitation at the beginning of the rainy season may result in an initial stormwater runoff (first flush) with high pollutant concentrations.

The Project Site encompasses approximately 15 acres. Proposed improvements to the Project Site consist of one commercial type building and a truck yard on the north side of the building. Vehicle parking lots would be located on the east, south and west sides of the building. The remainder of the site would be reserved for landscaping. Due to the site's history with soil and groundwater contamination, infiltration BMPs are not recommended on-site. Instead, the project proposes capture and use BMPs sized to treat the Stormwater Quality Design volume (SWQDv).

As shown in Figure IV.H-1, *Preliminary Low Impact Development Plan* and Table IV.H-2, the north half of the proposed building, the northerly truck yard, the north-westerly drive aisle and the westerly parking lot (Subareas 1A-2A) drain to catch basins in the drive aisle and truck yard. The south half of the proposed building, the southerly and easterly parking lots (Subareas 3A-4A) drain to catch basins in the parking lots. Before runoff discharges off-site, the SWQDv would be diverted to the proposed capture and use BMP.³³ The captured stormwater would be utilized to irrigate the proposed on-site landscaping. Any overflow would be conveyed to the LACFCD 93-inch public stormwater drain at the northeast corner of the site. The westerly landscape area fronting Vermont Avenue, including the southerly landscaped area adjacent to Redondo Beach Boulevard (Subarea 1B), would surface drain to Redondo Beach Boulevard without being conveyed to the proposed capture and use BMP.

³³ *Capture and use BMPs capture drainage at a specific location and use a combination of detention, infiltration, evaporation, settling, and transformation to manage flow and remove pollutants. Once the runoff is treated, it is reused for non-potable uses such as irrigation or dust control.*

**Table IV.H-2
Operational BMPs**

Subarea	Collection	BMP	Disposal
1A	Catch basins in the north-westerly drive aisle	<ul style="list-style-type: none"> • Hydrodynamic separator • Underground cistern 	<ul style="list-style-type: none"> • On-site landscape irrigation • Overflow to the 93-inch public stormwater drain at the northeast corner of the site
2A	Catch basins in north-westerly drive aisle truck yard	<ul style="list-style-type: none"> • Hydrodynamic separator • Underground cistern 	<ul style="list-style-type: none"> • On site landscape irrigation • Overflow to the 93-inch public stormwater drain at the northeast corner of the site
3A	Catch basins in the southerly and easterly parking lots	<ul style="list-style-type: none"> • Hydrodynamic separator • Underground cistern 	<ul style="list-style-type: none"> • On site landscape irrigation • Overflow to the 93-inch public stormwater drain at the northeast corner of the site
4A	Catch basins in the easterly parking lots	<ul style="list-style-type: none"> • Hydrodynamic separator • Underground cistern 	<ul style="list-style-type: none"> • On site landscape irrigation • Overflow to the 93-inch public stormwater drain at the northeast corner of the site
1B	None	None	<ul style="list-style-type: none"> • Surface drain to Redondo Beach Boulevard

The SWQDv is conveyed through a hydrodynamic separator prior to entering the capture and use BMP. Hydrodynamic separators separate and trap trash, debris, sediment, and hydrocarbons from stormwater runoff. The capture and use BMP consists of an underground cistern with a submersible pump. As shown in Figure IV.H-1, the underground cistern would be located north of the proposed industrial building. Treated stormwater from the cistern is then pumped to irrigation areas across the site.

In addition, the preliminary LID Report for the proposed Project includes the following source control BMPs:

- Storm drain message and signage: All proposed and any existing inlets to remain would be stenciled with prohibitive language and/or graphical icons to prevent dumping. Legibility of the stencils/markers would be maintained on a yearly basis, or as needed.
- Outdoor trash storage/waste handling areas: Trash enclosures would be located away from roof drainage. The bin's lid would remain closed when not in use and would be walled off.
- Outdoor loading/unloading dock area: The proposed Project would construct several loading docks. The concrete surface is designed to minimize run-on to the loading docks and would be treated by the capture and use BMP. Additionally, the proposed building would be utilized as a warehouse for finished goods and consequently, items being loaded and unloaded do not have the potential to contribute to stormwater pollution.

- Parking lots: The project owner would ensure that grease and oil are contained within the parking lot area. The parking lot would be swept on a monthly basis, minimum, and before any rain events. Absorbent materials would be used to collect any spilled oil, and disposed of properly, to ensure they do not contaminate stormwater.
- Landscape irrigation practices: The proposed Project would include irrigation systems that utilize a weather-based smart irrigation controller to minimize water usage and reduce dry weather urban runoff.

Moreover, the property owner/operator would maintain proof of on-going maintenance at the site as recorded in the covenant and agreement (see Appendix G2).

The proposed site is tributary to an engineered channel (Dominguez Channel) that is regularly maintained and is not susceptible to hydromodification impacts. In addition, the on-site water quality BMPs would assist in increasing the time of concentration and discharging flows at a controlled rate.

Furthermore, the SMP includes post-construction requirements that include surveying of any contaminated soil left in place and the preparation of a report that documents on-site activities, locations of soil sources, final disposition of contaminated soil, and estimated quantities of materials.

Implementation of site specific BMPs and the SMP would improve the water quality of runoff when compared to existing conditions since runoff currently flows untreated into the 93-inch LACFCD storm drain adjacent to the northeast corner of the site. **Therefore, the Project would not violate any water quality standards or waste discharge requirements and impacts during the operational phase would be less than significant.**

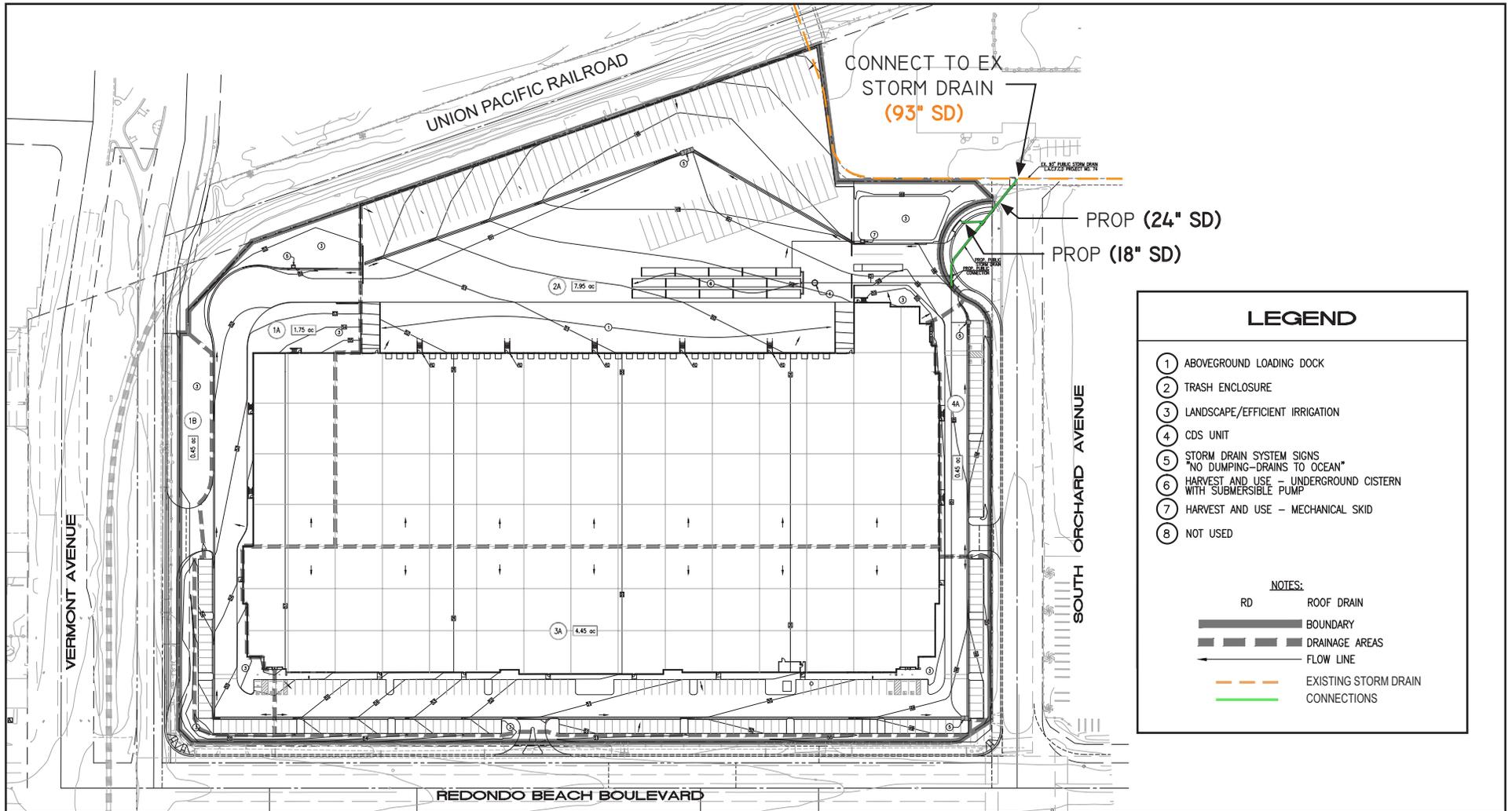
(2) Mitigation Measures

Impacts regarding water quality were determined to be less than significant. Therefore, no mitigation measures are required.

(3) Level of Significance After Mitigation

Impacts regarding 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.

Figure IV.H-1 - Preliminary Low Impact Development Plan



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?*

As discussed in Chapter VI (Subsection Impacts Found not to be Significant) and in the Initial Study (Appendix A), the Project would not require the use of groundwater at the Project Site. The Project would not require direct additions or withdrawals of groundwater. **As a result, the Project would not decrease groundwater supplies or interfere with groundwater recharge. As such, no impact would occur with respect to Threshold (b), and no further analysis is required.**

Threshold (c): *Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would: (i) result in substantial erosion or siltation on- or off-site; (ii) substantially increase the rate of 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?*

(1) Impact Analysis

The proposed Project would not involve the alteration of any natural drainages or watercourses and would include capture and reuse BMPs on site. As described above, the SWQDv from the proposed building, truck yard, parking aisles, and parking lots (Subareas 1A, 2A, 3A, and 4A) would be conveyed to the BMPs on-site, and overflow would be diverted to the 93-inch public stormwater drain at the northeast corner of the site. The allowable discharge to this storm drain from the Project Site is 17.3 cfs.³⁴

The 50-year peak flow rate was calculated for the subareas on the Project Site that are tributary to the public storm drain. As shown in Table IV.H-3, the peak flow from Subareas 1A-2A (see Figure IV.H-1) is approximately 20.1 cfs and the peak flow rate from Subareas 3A-4A is approximately 11.4 cfs. The proposed condition 50-year runoff from the Project Site to the public storm drain is higher than the allowable discharge, and detention in the northerly truck yard would be utilized to reduce overall proposed condition site discharge to below the allowable discharge.

³⁴ *The allowable discharge was obtained from the Los Angeles County Department of Public Works Design Division. Thienes Engineering received an information request summary from Ambrose Ajaelo on September 26th 2016 indicating an allowable flow rate of 1.15 cfs per acre. Refer to Appendix A of the Preliminary Hydrology Calculations for the South Bay Industrial Center (Appendix G1 of the EIR).*

**Table IV.H-3
Proposed 50-Year Peak Flow Rates**

Subarea	Proposed (cfs)	Allowable Discharge (cfs) ²	Detained (cfs)	Discharged (cfs)
1A and 2A (9.7 acres)	20.1	11.2	15.0	5.1
3A and 4A (4.9 acres)	11.4	5.6	-	11.4 ²
1B ¹ (0.4 acres)	-	0.5	-	-
Total	31.5	17.3	15.0	16.5

Source: Thienes Engineering, 2019

Notes: cfs – cubic feet per second

- ¹ The Project Site is allowed a discharge flow rate into the public storm drain equivalent to 1.15 cfs per acre. Since the site is approximately 15 acres, the storm drain can accommodate a total discharge of 17.3 cfs from the Project Site. Area 1B is allocated an allowable discharge; however, this area would not discharge runoff into the 93-inch LACFCD storm drain but sheet flow to Redondo Beach Boulevard. The proposed drainage from this area into Redondo Beach Boulevard is 0.8 cfs.
- ² Note that the column marked "Allowable Discharge" shows the product of the subarea acreage and the allowable discharge rate of 1.15 cfs per acre. For area 3A and 4A, even though the allowable discharge is shown as 5.6 cfs, this number indicates the product of the acreage (4.9 acres) and the allowable discharge rate (1.15 cfs per acre). The concern is that the site, in its entirety, does not discharge more than 17.3 cfs to the storm drain. As shown in the table the total discharge for the entire site, 16.5 cfs, is less than 17.3 cfs.

Per detention calculations, approximately 5.1 cfs out of the proposed condition runoff tributary to the truck yard (Subareas 1A-2A) would be allowed to discharge via the proposed storm drain system. The remaining runoff of 15.0 cfs would be detained in the truck yard at a depth of 1.27 ft. Runoff from Subarea 3A and 4A would be allowed to discharge un-detained via the proposed storm drain system. With detention in the truck yard, the total proposed condition 50-year discharge from the Project Site would be 16.5 cfs, which is less than the allowable discharge of 17.3 cfs.

With the implementation of the BMPs and detention features, the Project would not substantially increase the rate or amount of surface runoff in a manner that would result in on- or off-site flooding. Also, the site design LID features and on-site detention facilities would ensure that stormwater runoff does not exceed the capacity of the storm drain system. The calculated stormwater runoff volume for the 50-year storm under post-development conditions would be less than the allowable discharge to the public storm drain system. **Therefore, impacts on existing drainage patterns that would cause increased siltation and flooding on- or off-site, 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.**

(2) Mitigation Measures

Impacts on existing drainage patterns that would cause increased siltation and flooding on- or off-site, 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 are required.

(3) Level of Significance After Mitigation

Impacts on existing drainage patterns that would cause increased siltation and flooding on- or off-site, 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 were required or included, and the impact level remains less than significant.

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

As discussed in Chapter VI (Subsection Impacts Found not to be Significant) and in the Initial Study (Appendix A), the Project Site is not located within a potential inundation area. Therefore, the possibility of the Project being affected by a tsunami, seiche, or flooding is negligible. **As such, no impact would occur with respect to Threshold (d), and no further analysis is required.**

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

(1) Impact Analysis

Water supply to the proposed Project would be provided by the LADWP and would not require the use of groundwater at the Project Site. Therefore, the proposed Project would not require direct additions or withdrawals of groundwater. Excavation that would result in the interception of existing aquifers or penetration of the existing water table is not proposed or anticipated. The Project would be required to comply with the City's Stormwater and Urban Runoff Pollution Control regulations to ensure pollutant loads from the Project site are minimized for downstream receiving waters. The Stormwater and Urban Runoff Pollution Control Ordinances contain requirements for construction activities and operation of development and redevelopment projects to integrate low impact development practices and standards for stormwater pollution mitigation, and maximize open, green and pervious space on all developments and redevelopments consistent with the City's landscape ordinance and other related requirements in the City's Development BMPs Handbook. Conformance would be ensured during the permitting process with the Department of Building & Safety. Adherence to the State CGP, implementation of the SWPPP, and adherence to LAMC requirements would ensure that surface water quality is not adversely impacted during construction. In addition, implementation of the BMP measures at the site would ensure that water quality is not impacted during the operational phase of the Project. **Therefore, the proposed Project would not conflict with or obstruct the implementation of a water quality control plan or sustainable groundwater management plan.**

(2) Mitigation Measures

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. Therefore, no mitigation measures are required.

(3) Level of Significance After Mitigation

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. Therefore, no mitigation measures were required or included, and the impact level remains less than significant.

e. Cumulative Impacts

(1) Impact Analysis

a. *Hydrology and Drainage*

The area considered for hydrology and drainage impacts is the Dominguez Watershed. Cumulative projects within the Dominguez Watershed could increase impervious areas and increase stormwater runoff rates. However, all projects within the watershed would be required to prepare and implement LID reports that include provisions for the capture and infiltration of runoff or the temporary detention of stormwater runoff in Hydrologic Conditions of Concern (HCOC) areas so that post-development runoff discharges do not exceed pre-development runoff rates, in accordance with the NPDES MS4 permit. Thus, no significant cumulative drainage impacts would occur, and project drainage impacts would not be cumulatively considerable.

b. *Water Quality*

The area considered for water quality impacts is the LARWQCB's jurisdiction. Cumulative projects have the potential to generate pollutants during project construction and operation. All construction projects that disturb one acre or more of land would be required to prepare and implement SWPPPs in order to obtain coverage under the Statewide CGP. All projects within the watershed would also be required to prepare and implement LID reports specifying BMPs, that would be applied during project design and project operation to minimize water pollution from project operation. Thus, no significant cumulative water quality impacts would occur and project water quality impacts would not be cumulatively considerable.

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