IV. Environmental Impact Analysis

O.1 Utilities and Service Systems – Water Supply and Infrastructure

1. Introduction

This section addresses the potential impacts of the proposed Project on water supply and infrastructure, including mitigation, if any, that may be needed to reduce such impacts to less than significant. This analysis includes a description of existing Project Site water infrastructure, and the associated demands the proposed Project would place upon regional water supplies that serve the proposed Project area. Specifically, this section quantifies the anticipated operational water demand for the proposed development, identifies applicable water efficiency strategies that are required under State law, and evaluates the anticipated water demand with respect to the City of Los Angeles (City) Department of Water and Power (LADWP) 2015 Urban Water Management Plan (UWMP). The 2015 UWMP is incorporated by reference and is available for review through LADWP's website (www.ladwp.com).

The information in this section is based in part on the following documents:

Appendix G-1 LADWP, Water Supply Assessment for the Kaiser Permanente Los Angeles Medical Center Project, November 27, 2018

Appendix G-2 LADWP Will Serve Letter, Tract 74846, South of Sunset Boulevard and East of Kenmore Avenue, March 28, 2017

Appendix G-3 LADWP Will Serve Letter, Tract 74847, South of Sunset Boulevard and East of Alexandria Avenue, March 28, 2017

Appendix G-4 LADWP Will Serve Letter, Tract 74848, West of Vermont Avenue and South of Sunset Boulevard, March 28, 2017

Appendix G-5 LADWP Will Serve Letter, Water Availability – Will Serve, Kaiser Permanente Los Angeles Medical Center Project, March 2, 2020

Appendix G-6 LA Sanitation & Environment (LASAN) Sewer Generation Factors, April 6, 2012

2. Environmental Setting

a) Regulatory Framework

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

- Clean Water Act
- Federal Safe Drinking Water Act of 1974
- California Urban Water Management Plan Act (California Water Code Sections 10610–10656)
- California Safe Drinking Water Act of 1976
- Title 20 Water Efficiency Standards
- Title 22 Potable and Reclaimed Water
- California Green Building Standards Code
- California Plumbing Code
- Water Conservation Act of 2009
- Senate Bill 610 and Senate Bill X7-7
- Sustainable Groundwater Management Act of 2014
- State of Drought Emergency Declaration and Executive Orders
- California Water Plan
- California Water Action Plan
  - National Pollutant Discharge Elimination System Municipal Permit No. CAS004001 (NPDES Permit); Order No. R4-2012-0175
- Metropolitan Water District Integrated Water Resources Plan
- Metropolitan Water District's 2015 Urban Water Management Plan
- Water Surplus and Drought Management Plan

- Water Supply Allocation Plan
- Municipal Water Conservation
- One Water LA 2040 Plan
- City of Los Angeles General PlanLos Angeles Municipal Code
- Executive Directive No. 5
- L.A.'s Green New Deal (Sustainable City pLAn)

(1) Federal

(a) Clean Water Act

In 1972, the Federal Water Pollution Control Act also known as the Clean Water Act was amended to require that the discharge of pollutants to "waters of the US" from any point source be effectively prohibited, unless the discharge is in compliance with a National Pollutant Discharge Elimination System (NPDES) Permit. In 1987, the Clean Water Act was again amended to add Section 402(p), requiring that the U.S Environmental Protection Agency establish regulations for permitting of stormwater discharges by municipal and industrial facilities and construction activities under the NPDES Permit Program. The U.S. Environmental Protection Agency published final regulations directed at municipal separate storm sewer systems, serving a population of 100,000 or more, and stormwater discharges associated with industrial activities, including construction activities, on November 16, 1990. The regulations require that municipal separate storm sewer system discharges to surface waters be regulated by a NPDES Permit.

(b) Federal Safe Drinking Water Act of 1974

Enacted in 1974 and implemented by the U.S. Environmental Protection Agency, the federal Safe Water Drinking Act imposes water quality and infrastructure standards for potable water delivery systems nationwide. The primary standards are health-based thresholds established for numerous toxic substances. Secondary standards are recommended thresholds for taste and mineral content.

(2) State

(a) California Urban Water Management Plan (California Water Code Sections 10610–10656)

The California Urban Water Management Planning Act[1] addresses several state policies regarding water conservation and the development of water management plans to ensure the efficient use of available supplies. The California Urban Water Management Planning Act also requires urban water suppliers to develop UWMPs every 5 years to identify short-term and long-term demand management measures to meet growing water demands during normal, dry, and multiple-dry years. Urban water suppliers are defined as water suppliers that either serve more than 3,000 customers or provide more than 3,000 acre-feet per year (AFY) of water to customers.

(b) California Safe Drinking Water Act of 1976

California enacted its own Safe Drinking Water Act (California SDWA) in 1976. The California SDWA was updated in 1996 and again in 2015 under 2015 California Code, Health and Safety Code, Division 104 – Environmental Health, Part 12 – Drinking Water, Chapter 4 – California Safe Drinking Water Act. Under the California SDWA, it is the policy of the State to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases. It is the intent of the legislature to establish a drinking water regulatory program within the State board to provide for the orderly and efficient delivery of safe drinking water within the state. As of July 2014, the State Water Resources Control Board (SWRCB) is responsible for the administration of the California SDWA.

(c) Title 20 Water Efficiency Standards

Title 20 of the California Code of Regulations (CCR), Chapter 4, Article 4, Section 1605.3 establishes water efficiency standards (i.e., maximum flow rates, maximum gallons per flush) for all new plumbing fittings and fixtures (e.g., showerheads, sink faucets, toilets, urinals). Among the standards, the maximum flow rate for showerheads and lavatory faucets manufactured after July 1, 2018, are 1.8 gallons per minute (gpm) at 80 pounds per square inch (psi), with an optional temporary flow of 2.2 gpm at 60 psi for kitchen faucets and aerators. The standard for public lavatory faucets and aerators is 0.5 gpm at 60 psi. The standard for toilets and urinals is 1.28 gallons per flush. In addition, Section 1605.3(h) establishes State efficiency standards for non-federally regulated plumbing fittings, including commercial pre-rinse spray valves.

[1] California Water Code Division 6, Part 2.6, Sections 10610-10656.

(d) Title 22 Potable and Reclaimed Water

Title 22 of the CCR establishes the California Department of Public Health authority and stipulates drinking water quality and monitoring standards. These standards are equal to or more stringent than the Federal standards. In addition, California Water Code requires the California Department of Public Health to establish water reclamation criteria. Title 22 regulates production and use of reclaimed water in California by establishing three categories of reclaimed water: (1) primary effluent, which typically includes grit removal and initial sedimentation or settling tanks; (2) adequately disinfected, oxidized effluent (secondary effluent), which typically involves aeration and additional settling basins; and (3) adequately disinfected, oxidized, coagulated, clarified, filtered effluent (tertiary effluent), which typically involves filtration and chlorination. In addition to defining reclaimed water uses, Title 22 also defines requirements for sampling and analysis of effluent and requires specific design requirements for facilities.

(e) California Green Building Standards Code

Part 11 of CCR Title 24 establishes the California Green Building Standards Code (CALGreen). The purpose of CALGreen is to improve public health, safety, and general welfare by enhancing the design and construction of buildings through the use of building concepts having a reduced negative impact or positive environmental impact and encouraging sustainable construction practices in the following categories: planning and design, energy efficiency, water efficiency and conservation, material conservation and resource efficiency, and environmental quality. CALGreen includes both mandatory measures as well as voluntary measures. The mandatory measures establish minimum baselines that must be met for a building to be approved. The voluntary measures can be adopted by local jurisdictions for greater efficiency.

(f) California Plumbing Code

CCR Title 24, Part 5 establishes the California Plumbing Code. The California Plumbing Code sets forth efficiency standards (i.e., maximum flow rates) for all new federally regulated plumbing fittings and fixtures, including showerheads and lavatory faucets. The 2019 California Plumbing Code, which is based on the 2018 Uniform Plumbing Code, was published by the California Building Standards Commission and went into effect on January 1, 2019.

(g) Water Conservation Act of 2009

Senate Bill (SB) X7-7, also known as the Water Conservation Act of 2009, was enacted in November 2009 and requires that all water suppliers increase water use efficiency to achieve a 20 percent reduction in urban per-capita water use in California by December 31, 2020. The main features of this legislation are divided into two sectors: Urban Water

Conservation and Agricultural Water Conservation. The law requires, among other things, that the Department of Water Resources (DWR), in consultation with other State agencies, develop a single standardized water use reporting form to be used by both urban and agricultural water agencies.

(h) SB 610 and SB X7-7

Two of the State laws addressing the assessment of water supply necessary to serve large-scale development projects, SB 610 and SB 221, became effective January 1, 2002.

SB 610, codified in Water Code Sections 10910–10915, specifies the requirements for water supply assessments (WSAs) and their role in the California Environmental Quality Act (CEQA) process, and defines the role UWMPs play in the WSA process. SB 610 requires that, for projects subject to CEQA that meet specific size criteria, the water supplier prepare WSAs that determine whether the water supplier has sufficient water resources to serve the projected water demands associated with the projects. SB 610 provides specific guidance regarding how future supplies are to be calculated in the WSAs where an applicable UWMP has been prepared. Specifically, a WSA must identify existing water supply entitlements, water rights, or water service contracts held by the public water system, and prior years' actual water deliveries received by the public water system. In addition, the WSA must address water supplies over a 20-year period and consider normal, single-dry, and multiple-dry year conditions. In accordance with SB 610, projects for which a WSA must be prepared are those subject to CEQA that meet any of the following criteria:

- Residential developments of more than 500 dwelling units
- Shopping centers or business establishments employing more than 1,000 persons or having more than 500,000 square feet of floor space
- Commercial office buildings employing more than 1,000 persons or having more than 250,000 square feet of floor space
- Hotels, motels, or both, having more than 500 rooms
- Industrial, manufacturing, or processing plants, or industrial parks planned to house more than 1,000 persons, occupying more than 40 acres of land, or having more than 650,000 square feet of floor area
- Mixed-use projects that include one or more of the projects specified in this subdivision
- Projects that would demand an amount of water equivalent to or greater than the amount of water required by a 500-dwelling-unit project[2] .

[2] California Water Code Section 10912; CEQA Guidelines Section 15155(a).

The WSA must be approved by the public water supplier serving the project at a regular or special meeting and must be incorporated into the CEQA document. The lead agency must then make certain findings related to water supply based on the WSA.

In addition, under SB 610, a water supplier responsible for the preparation and periodic updating of an UWMP must describe the water supply projects and programs that may be undertaken to meet the total project water use of the service area. If groundwater is identified as a source of water available to the supplier, the following additional information must be included in the UWMP: (1) a groundwater management plan; (2) a description of the groundwater basin(s) to be used and the water use adjudication rights, if any; (3) a description and analysis of groundwater use in the past 5 years; and (4) a discussion of the sufficiency of the groundwater that is projected to be pumped by the supplier.

SB X7-7, enacted on November 10, 2009, mandates new water conservation goals for UWMPs, requiring urban water suppliers to achieve a 20 percent per-capita water consumption reduction by the year 2020 statewide, as described in the "20 x 2020" State Water Conservation Plan. As such, each updated UWMP must now incorporate a description of how each respective urban water supplier will quantitatively implement this water conservation mandate, which requirements in turn must be taken into consideration in preparing and adopting WSAs under SB 610.

(i) Sustainable Groundwater Management Act of 2014

The Sustainable Groundwater Management Act (SGMA) of 2014[3], passed in September 2014, is a comprehensive three-bill package that provides a framework for the sustainable management of groundwater supplies by local authorities.[4] The SGMA requires the formation of local groundwater sustainability agencies to assess local water basin conditions and adopt locally based management plans. Local groundwater sustainability agencies were required to be formed by June 30, 2017. The SGMA provides 20 years for groundwater sustainability agencies to implement plans and achieve long-term groundwater sustainability, and protect existing surface water and groundwater rights. The SGMA provides local groundwater sustainability agencies with the authority to require registration of groundwater wells, measure and manage extractions, require reports and assess fees, and request revisions of basin boundaries, including establishing new subbasins. Furthermore, SGMA requires governments and water agencies of high and medium priority basins to stop overdraft and bring groundwater basins into balanced levels of pumping and recharge. Under SGMA, these basins should reach sustainability

[3] Sustainable Groundwater Management Act, California Water Code, Division 6: Conservation, Development, and Utilization of State Water Resources, Part 2.74: Sustainable Groundwater Management, as amended.

[4] California Department of Water Resources (DWR), SGMA Groundwater Management, 2021

within 20 years of implementing their sustainability plans. For the basins that are critically overdrafted the timeline is 2040. For the remaining high and medium priority basins, the deadline is 2042.

(j) State of Drought Emergency Declaration and Executive Orders

In response to California's drought conditions, on January 17, 2014, Governor Brown declared a State of Drought Emergency and directed state officials to take numerous necessary actions with local urban water suppliers and municipalities to reduce the impacts of the ongoing drought conditions that had been occurring in California since approximately 2009.[5] Subsequently, four Executive Orders (EOs) were issued between April 2015 to April 2017 to address changing drought conditions and provide guidance for addressing the drought conditions.

EO B-29-15 (April 2015) imposed a mandatory 25 percent statewide water reduction on potable water use by urban water suppliers. It prioritized water infrastructure projects, incentivized water efficiencies, and streamlined permitting with new approval processes for water transfers and emergency drinking water projects. EO B-36-15 (November 2015) called for additional actions to build on the State's response to record dry conditions and assisted recovery efforts from devastating wildfires; and EO B-37-16 (May 2016) continued water use restrictions from EO B-29-15 as drought conditions continued to persist. EO B-37-16 called for long-term improvements to local drought preparation across the State, and directed the California SWRCB to develop proposed emergency water restrictions for 2017 if the drought persists.[6]

The regulatory requirements resulting from these EOs were codified in CCR Article 22.5, Drought Emergency Water Conservation.

In May 2016, SWRCB adopted a revised emergency water conservation regulation, effective June 2016 through at least February 2017, which rescinded numeric reduction targets for urban water suppliers, instead requiring locally developed conservation standards based upon each agency's specific circumstances.[7]

Finally, on April 7, 2017, EO B-40-17 was issued to formally end the drought emergency and lift the drought emergency in all California counties except Fresno, Kings, Tulare, and Tuolumne. In response to EO B-40-17, on April 26, 2017, SWRCB partially repealed the

5 Office of Governor Edmund G. Brown Jr., Governor Brown Declares Drought State of Emergency, January 17, 2014.

6 Office of Governor Edmund G. Brown Jr., Governor Brown Issues Order to Continue Water Savings as Drought Persists, May 9, 2016.

7 State Water Resources Control Board (SWRCB), Resolution No. 2016-0029, To Adopt an Emergency Regulation for Statewide Urban Water Conservation, May 18, 2016.

emergency regulation in regard to water supply stress test requirements and remaining mandatory conservation standards for urban water suppliers.[8,9] The order also rescinded two drought-related emergency proclamations and four drought-related executive orders. Cities and water districts throughout the State are required to continue reporting their water use each month. EO B-40-17 continued the ban on wasteful practices, including hosing off sidewalks and running sprinklers when it rains.

(k) California Water Plan

Required by California Water Code Section 10005(a), the California Water Plan is the State's strategic plan for managing and developing water resources statewide for current and future generations.[10] It provides a collaborative planning framework for elected officials, agencies, tribes, water and resource managers, businesses, academia, stakeholders, and the public to develop findings and recommendations and make informed decisions for California's water future.

The plan, updated every 5 years, presents the status and trends of California's water-dependent natural resources; water supplies; and agricultural, urban, and environmental water demands for a range of plausible future scenarios. The California Water Plan also evaluates different combinations of regional and statewide resource management strategies to reduce water demand, increase water supply, reduce flood risk, improve water quality, and enhance environmental and resource stewardship. The evaluations and assessments performed for the plan help identify effective actions and policies for meeting California's resource management objectives in the near term and for several decades to come.

In July 2019, DWR released the Final 2018 Update to the California Water Plan.11 The document provides recommended actions, funding scenarios, and an investment strategy to bolster efforts by water and resource managers, planners, and decision-makers to overcome the State's most pressing water resource challenges. It reaffirms the State government's role and commitment to sustainable, equitable, long-term water resource management; and introduces implementation tools to inform decision-making. The 2018 update recommends significant additional investment in infrastructure and ecosystem improvements to overcome challenges to sustainability; and it recommends actions to resolve systemic and institutional issues that contribute to many of the State's water challenges.[12]

8 SWRCB), Resolution No. 2016-0029, To Adopt an Emergency Regulation for Statewide Urban Water Conservation, May 18, 2016.

9 SWRCB, Resolution No. 2017-0024,To Partially Repeal a Regulation for Statewide Urban Water Conservation, April 26, 2017. .

10 DWR, California Water Plan, https://water.ca.gov/Programs/ California-Water-Plan, accessed February 12, 2021.

11 DWR, DWR Releases Final California Water Plan Update 2018, July 16, 2019.

12 DWR, California Water Plan Update 2018, Executive Summary, pages ES-1 to ES-2, June 2019.

(l) California Water Action Plan

The California Water Action Plan is a roadmap for the State's journey towards sustainable water management. The first California Water Action Plan was released in January 2014 under Governor Brown's administration and was updated in 2016.[13] The California Water Action Plan discusses the challenges to water in California: uncertain water supplies, water scarcity/drought, declining groundwater supplies, poor water quality, declining native fish species and loss of wildlife habitat, floods, supply disruptions, and population growth and climate change further increasing the severity of these risks.[14]

(i) NPDES Municipal Permit No. CAS004001 (NPDES Permit); Order No. R4-2012-0175

Order No. R4-2012-0175[15] was adopted by the Regional Water Quality Control Board, Los Angeles Region, on November 8, 2012, and became effective on December 28, 2012. It regulates municipal discharges of stormwater and non-stormwater by the Los Angeles County Flood Control District, the County of Los Angeles, and the 84 incorporated cities within the coastal watersheds of Los Angeles County with the exception of the City of Long Beach. The NPDES Permit was issued for discharge points into receiving waters located at (1) Santa Clara River Watershed; (2) Santa Monica Bay Watershed Management Areas, including Malibu Creek Watershed and Ballona Creek Watershed; (3) Los Angeles River Watershed; (4) Dominguez Channel and Greater Los Angeles/Long Beach Harbors Watershed Management Area; (5) Los Cerritos Channel and Alamitos Bay Watershed Management Areas; (6) San Gabriel River Watershed; and (7) Santa Ana River Watershed.

(3) Regional

As discussed in detail below, the Metropolitan Water District of Southern California (MWD) is a primary source of water supply within Southern California. Based on the water supply planning requirements imposed on its member agencies and ultimate customers, MWD has adopted a series of official reports on the state of its water supplies. As described in further detail below, in response to recent developments in the Sacramento Delta, MWD has developed plans intended to provide solutions that, when combined with the rest of its supply portfolio, will ensure a reliable long-term water supply for its member agencies.

[13] California Natural Resources Agency (CNRA), California Water Action Plan, http://resources.ca.gov/california_water_action_plan/. Accessed September 2020.
[14] CNRA, California Water Action Plan 2016 Update, pp. 2 and 3,2016.
[15] Los Angeles Regional Water Quality Control Board, NPDES Municipal Permit No. CAS004001: Order No. R4-2012-0175.

(a) MWD Integrated Water Resources Plan

The Integrated Water Resources Plan (IWRP) is the long-term water resources strategy for MWD in Southern California. As it was first adopted in 1996, the goal of the IWRP has been to ensure that a reliable water system will extend into the future. The 2015 IWRP Update, adopted in January 2016, provides MWD's strategy for water resource reliability through the year 2040 and establishes targets for a diversified portfolio of water supply investments. The 2015 IWRP Update calls for stabilizing and maintaining imported water supplies, meeting future growth through increased water conservation and sustaining and developing new local supplies, pursuing a comprehensive transfers and exchanges strategy, building storage in wet and normal years to manage risks and drought, and preparing for uncertainty with Future Supply Actions. Overall, the strategies presented in the 2015 IWRP Update include investments to maintain the reliability of imported water supplies, expansion of local water supplies, and reduction in water demand through a variety of conservation and water use efficiency initiatives.[16]

(b) MWD 2015 Urban Water Management Plan

The MWD 2015 UWMP addresses the future of MWD's water supplies and demand through the year 2040. Based on the 2015 UWMP, MWD has supply capabilities that would be sufficient to meet expected demands from 2020 through 2040 under single dry-year and multiple dry-year hydrologic conditions. MWD has comprehensive plans for stages of actions it would undertake to address up to a 50 percent reduction in its water supplies and a catastrophic interruption in water supplies through its Water Surplus and Drought Management and Water Supply Allocation Plans. MWD has also developed an emergency storage requirement to mitigate against potential interruption in water supplies resulting from catastrophic occurrences within the Southern California region and is working with the State to implement a comprehensive improvement plan to address catastrophic occurrences that could occur outside of the Southern California region. MWD is also working with the State on the Delta Risk Management Strategy to reduce the impacts of a seismic event in the Delta that would cause levee failure and disruption of State Water Project (SWP) deliveries. In addition, MWD has plans for supply implementation and continued development of a diversified resource mix, including programs in the Colorado River Aqueduct, SWP, Central Valley transfers, local resource projects, and in-region storage that enables the region to meet its water supply needs. As set forth in their 2015 UWMP, MWD will also continue investments in water use efficiency measures to help the region achieve the 20 percent per person potable water use reduction by 2020.[17]

[16] Metropolitan Water District of Southern California (MWD), Integrated Water Resources Plan (IWRP) 2015 Update, January 2016.

[17] MWD, Urban Water Management Plan (UWMP), June 2016.

(c) MWD Water Surplus and Drought Management Plan

In 1999, MWD incorporated the water shortage contingency analysis that is required as part of any UWMP into a separate, more detailed plan, called the Water Surplus and Drought Management Plan. The overall objective of the Water Surplus and Drought Management Plan is to ensure that shortage allocation of MWD's imported water supplies is not required.[18] The Water Surplus and Drought Management Plan provides policy guidance to manage MWD's supplies and achieve the goals laid out in the agency's IWRP. The Water Surplus and Drought Management Plan separates resource actions into two major categories: Surplus Actions and Shortage Actions. The Water Surplus and Drought Management Plan considers the region to be in surplus only after MWD has met all demands for water, including replenishment deliveries. The Surplus Actions store surplus water, first inside and then outside of the region. The Shortage Actions of the Water Surplus and Drought Management Plan are separated into three subcategories: Shortage, Severe Shortage, and Extreme Shortage. Each category has associated actions that could be taken as a part of the response to prevailing shortage conditions. Conservation and water efficiency programs are part of MWD's resource management strategy through all categories.

(d) MWD Water Supply Allocation Plan

While the Water Surplus and Drought Management Plan included a set of general actions and considerations for MWD staff to address during shortage conditions, it did not include a detailed water supply allocation plan or implementation approach. Therefore, MWD adopted a water supply plan called the Water Supply Allocation Plan in February 2008, which has since been implemented three times, most recently in April 2015.[19] The Water Supply Allocation Plan includes a formula for determining reductions of water deliveries to member agencies during extreme water shortages in MWD's service area conditions (i.e., drought conditions or unforeseen cuts in water supplies). The formula allocates shortages of MWD supplies and seeks to balance the impacts of a shortage at the retail level while maintaining equity on the wholesale level, and considers growth, local investments, changes in supply conditions and the demand hardening aspects of non-potable recycled water use and the implementation of conservation savings programs. The allocation period covers 12 months from July of a given year through the following June.

[18] MWD, Water Surplus and Drought Management Plan: Report No. 1150, August 1999.
[19] MWD, 2015 UWMP, June 2016.

(4) Local

(a) Municipal Water Conservation

In addition to state regulations, the LADWP has instituted its own water conservation measures. As discussed in LADWP's 2015 UWMP, water use in the City is currently less than water use 40 years ago, despite an over 1-million-person increase in service area population during this period. This stability in water use is largely attributed to the City's public education campaigns and water conservation programs over the past 20 years. The LADWP continues to develop cost-effective programs to achieve its multiple goals of demand reduction, customer service, and environmental responsibility. The conservation program includes conservation measures that fall under six categories: awareness/ support, residential, commercial/industrial/institutional, landscape, system maintenance measures, and conservation pricing structure, as described below.

- **Awareness/Support Measures**. These include full metering of water use, assessment of volumetric sewer charges, and a conservation rate structure. Passive components typically include providing educational materials for schools, community, and customer presentations; maintaining a conservation hotline; and distributing a wide range of information through customer bills, advertising in public venues, the LADWP's website, and direct mail.

- **Residential Measures**. These include the Ultra-Low-Flow Toilet Distribution Program and free water-saving showerheads, faucet aerators, and replacement toilet flapper valves. In addition, the High-Efficiency Washer Rebate Program was initiated in 1998, and pilot programs examining the effectiveness of weather-sensitive irrigation controllers in residential applications are presently underway.

- **Commercial/Industrial/Governmental Measures.** These include a commercial rebate program designed specifically for customers in the commercial/industrial/ institutional (CII) category. In addition, water use-efficiency solutions are being developed for specific business sectors. The cornerstone of LADWP's efforts to maximize conservation in the CII sector is the Technical Assistance Program.

- **Landscape Measures.** These include investing in landscape irrigation efficiency programs and projects. Pilot programs examining the effectiveness of weather-sensitive irrigation controllers in residential applications are presently underway.

- **System Maintenance.** Maintaining system infrastructure reduces water waste and allows for greater water accountability. Infrastructure maintenance, such as pipeline replacement, cement-mortar lining, meter replacement, and others, is a high priority in LADWP's daily activities.

- **Conservation Pricing Structure.** A tiered rate structure, first implemented in 1993, applies a lower tier block rate for responsible water use within a specified water amount, and a higher rate for every billing unit above this block. To further encourage water conservation, water charges are based solely on water used and do not include fixed charges.

(b) One Water LA 2040 Plan

In April 2018, the City prepared the One Water LA 2040 Plan (One Water LA Plan), an integrated approach to Citywide recycled water supply, wastewater treatment, and stormwater management.[20] The new plan builds upon the City's Water IWRP, which projected needs and set forth improvements and upgrades to wastewater conveyance systems, recycled water systems, and runoff management programs through the year 2020, and extends its planning horizon to 2040. The One Water LA Plan proposes a collaborative approach to managing the City's future water, wastewater treatment, and stormwater needs with the goal of yielding sustainable, long-term water supplies for Los Angeles to ensure greater resilience to drought conditions and climate change. The One Water LA Plan is also intended as a step toward meeting the Mayor's Executive Directive to reduce the City's purchase of imported water by 50 percent by 2024.[21] Major challenges addressed in the One Water LA Plan include recurring drought, climate change, and the availability of recycled water in the future in light of declining wastewater volumes.

(c) City of Los Angeles General Plan, Framework Element

The City of Los Angeles General Plan Framework Element (Framework Element) establishes the conceptual basis for the City's General Plan.[22] The Framework Element sets forth a comprehensive Citywide long-range growth strategy and defines Citywide policies regarding land use, housing, urban form and neighborhood design, open space and conservation, economic development, transportation, infrastructure and public services. Chapter 9, Infrastructure and Public Services, of the Framework Element identifies goals, objectives, and policies for City utilities including water service. Goal 9C is to provide adequate water supply, storage facilities, and delivery system to serve the needs of existing and future water needs.[23]

[20] City of Los Angeles, One Water LA 2040 Plan, Volume 1, Summary Report, April 2018,.
[21] City of Los Angeles, Office of the Mayor, Executive Directive No. 5, Creating a Water Wise City, issued October 14, 2014.
[22] City of Los Angeles, The Citywide General Plan Framework, An Element of the Los Angeles General Plan (Framework Element), August 8, 2001.
[23] City of Los Angeles, Framework Element, Chapter 9: Infrastructure and Public Services – Water Supply, August 8, 2001.

The General Plan goals, objectives, and policies related to water supply are listed below.

Goal 9C: Adequate water supply, storage facilities, and delivery system to serve the needs of existing and future residents and businesses.

Objective 9.1: Monitor and forecast demand based upon actual and predicted growth.

Objective 9.8: Monitor and forecast water demand based upon actual and predicted growth.

Policy 9.8.1: Monitor water usage and population and job forecast to project future water needs.

Objective 9.9: Manage and expand the City's water resources, storage facilities, and water lines to accommodate projected population increases and new or expanded industries and businesses.

Policy 9.9.1: Pursue all economically efficient water conservation measures at the local and statewide level.

Policy 9.9.7: Incorporate water conservation practices in the design of new projects so as not to impede the City's ability to supply water to its other users or overdraft its groundwater basins.

Objective 9.10: Ensure that water supply, storage, and delivery systems are adequate to support planned development.

Policy 9.10.1: Evaluate the water system's capability to meet water demand resulting from the Framework Element's land use patterns.

Policy 9.10.2: Solicit public involvement, when appropriate, in evaluating options for the construction of new and/or expansion of existing water facilities.

Objective 9.11: Ensure, to the maximum extent possible, the continued provision of water capacity, quality and delivery after an earthquake or other emergency.

Policy 9.11.1: Provide for the prompt resumption of water service with adequate quantity and quality of water after an emergency.

These goals, objectives and policies are addressed by the City in its ordinances and preparation of its UWMP.

(d) Los Angeles Municipal Code

The City has adopted several ordinances in the Los Angeles Municipal Code (LAMC) in an effort to reduce water consumption. A summary of the City's key regulations regarding water conservation is provided below.

- City Ordinance No. 180822 amended LAMC Chapter XII, Article 5 to establish water efficiency requirements for new development and renovation of existing buildings, and mandate installation of high-efficiency plumbing fixtures in residential and commercial buildings.

- City Ordinance No. 181480 (Green Building Code) amended LAMC Chapter IX, Article 9 to require newly constructed low-rise residential buildings to reduce indoor water use by at least 20 percent by: (1) using water-saving fixtures or flow restrictions and/or (2) demonstrating a 20 percent reduction in baseline water use.

- Ordinance No. 182849 amended LAMC Chapter IX, Article 9 to mandate that for new water service or for additions or alterations requiring upgraded water service for landscaped areas of at least 1,000 square feet, separate sub-meters or metering devices shall be installed for outdoor potable water use. This ordinance also required that for new non-residential construction with at least 1,000 square feet of cumulative landscaped area, weather- or soil moisture-based irrigation controllers and sensors be installed.

- Ordinance No. 184248 amended LAMC Chapter IX, Articles 4 and 9 to establish Citywide water efficiency standards and require water-saving systems and technologies in buildings and landscapes.

- City Ordinance Nos. 181899 and 183833 amended LAMC Section 64.72 regarding stormwater and urban runoff to include new requirements, including Low Impact Development requirements that promote water conservation.

- Ordinance Nos. 166080, 183608, and 184250 amended LAMC Chapter XII, Article 1 to clarify prohibited uses of water and modify certain water conservation requirements of the City's Emergency Water Conservation Plan. The City's Emergency Water Conservation Plan sets forth six different phases of water conservation, which shall be implemented based on water conditions. As part of these requirements, watering is limited to specific days and hours. In determining which phase of water conservation shall be implemented, LADWP monitors and evaluates the projected water supply and demand. In addition, the Emergency Water Conservation Plan includes penalties for those that violate its requirements.

- Ordinance No. 184130 amended the City's Water Rate Ordinance, which was adopted in June 1995, and approved by the City's Board of Water and Power

Commissioners. Effective April 15, 2016, this City Water Rate Ordinance restructured water rates to help further promote conservation. Specifically, the goal of the ordinance is to incentivize water conservation while recovering the higher costs of providing water to high-volume users and accelerating development of sustainable local water supply. Tiered water rate schedules were established for single-dwelling unit customers; multi-dwelling unit customers; commercial, industrial, and governmental customers and temporary construction; recycled water service; private water service; publicly sponsored irrigation; recreational, agricultural, horticultural, and floricultural uses; community gardens; and youth sports. The new water rate structure increases the number of tiers from two to four for single-dwelling unit customers. In addition, this ordinance intends to maintain cost-of-service principles, incremental tier pricing based on the cost of water supply, and added pumping and storage costs.

The City also has adopted numerous requirements related to the provision of water for purposes of fire protection. These requirements are set forth in the Fire Code[24] . Fire Code Section 57.507.3.1 establishes fire water flow standards. Fire water flow requirements, as determined by the Los Angeles Fire Department, vary by project site as they are dependent on land use (e.g., higher intensity land uses require higher flow from a greater number of hydrants), life hazard, occupancy, and fire hazard level. As set forth in LAMC Section 57.507.3.1, fire water flow requirements vary from 2,000 gpm in low-density residential areas to 12,000 gpm in high-density commercial or industrial areas. A minimum residual water pressure of 20 psi is to remain in the water system with the required gpm flowing. Per LAMC Section 57.507.3.1, Industrial and Commercial land uses such as those of the Project have a required fire flow of 6,000 to 9,000 gpm from four adjacent hydrants flowing simultaneously, with a residual pressure of 20 psi. LAMC Section 57.507.3.2 also addresses land use-based requirements for fire hydrant spacing and type. Land uses in the Industrial and Commercial category require one hydrant per 80,000 square feet of land with 300-foot distances between hydrants, and 2.5-inch by 4-inch or 4-inch by 4-inch double fire hydrants. Regardless of land use, every first story of a residential, commercial, and industrial building must be within 300 feet of an approved hydrant.

(e) Executive Directive No. 5

In response to the ongoing extreme drought conditions that started in 2012, on October 14, 2014, Mayor Eric Garcetti issued Executive Directive No. 5 (ED No. 5), which addresses the importance of reducing the City's reliance on imported water. ED No. 5[25] discussed achieving the following goals through actions by general funds departments, proprietary departments, and residents:

[24] Los Angeles Municipal Code (LAMC) Chapter V, Article 7.
[25] City of Los Angeles, Executive Directive No. 5, October 14, 2014.

- A reduction in per-capita potable water use by 20 percent by 2017.
- A reduction in LADWP's purchase of imported potable water by 50 percent by 2024.
- The creation of an integrated water strategy that increases local water supplies and improves water security in the context of climate change and seismic vulnerability.

(f) L.A.'s Green New Deal (Sustainable City pLAn)

The City released the first Sustainable City pLAn in April 2015, which was updated in 2019 as L.A's Green New Deal. The Green New Deal includes a multi-faceted approach to developing a locally sustainable water supply to reduce reliance on imported water, reducing water use through conservation, and increasing local water supply and availability. As part of the pLAn program, annual reports will chart progress towards reaching overall goals and desired outcomes. Major updates to the pLAn will occur every 4 years. The local water vision, strategies, and priority initiatives outlined in the pLAn are integrated into the 2015 LADWP UWMP. Combined pLAn and ED No. 5 serve as a blueprint for creating sustainable water supplies to serve the future needs of the City and outline responsible water resource management and planning.

b) Existing Conditions

(1) Water Infrastructure

The LADWP ensures the reliability and quality of its water supply through an extensive distribution system that includes more than 7,336 miles of pipes, 115 storage tanks and reservoirs within the City, and eight storage reservoirs along the Los Angeles Aqueduct (LAA). Much of the water flows north to south, entering Los Angeles at the Los Angeles Aqueduct Filtration Plant in Sylmar, which is owned and operated by LADWP. Water entering the Los Angeles Aqueduct Filtration Plant undergoes treatment and disinfection before being distributed throughout the LADWP's Water Service Area. The Los Angeles Aqueduct Filtration Plant has the capacity to treat approximately 600 million gallons per day. [26,27]

The potable water infrastructure near the Project Site includes existing water mains in North Edgemont Street, North Vermont Avenue, Sunset Boulevard, Fountain Avenue, and North New Hampshire Avenue. The Project Site (with multiple locations) all connect to the nearest street with existing water lines, with an underground wye.

[26] LADWP, Facts & History, The Story of the Los Angeles Aqueduct, 2013.
[27] LADWP, Los Angeles Aqueduct Filtration Plant, https://www.ladwpnews.com/ladwps-los-angeles-aqueduct-filtration-plant/, accessed December 2020.

(2) Water Supply

(a) Surface Water

(i) MWD

MWD is the largest water wholesaler for domestic and municipal uses in Southern California and provides water for 26 member agencies to deliver to nearly 19 million people.[28] MWD imports a portion of its water supplies from Northern California through the SWP California Aqueduct and from the Colorado River through MWD's own Colorado River Aqueduct. The City purchases water from MWD to supplement its supplies from local groundwater, LAA deliveries, and recycled water to make up the difference between demand and City supplies.

The City relies more heavily on MWD water during drier years. LADWP has worked with MWD in developing a plan for allocating water supplies during periods of shortage. On February 12, 2008, the MWD Board adopted its Water Supply Allocation Plan. LADWP supported the adoption of this plan to acquire its dry weather condition supplies from MWD. The record dry and hot conditions of 2014 significantly impacted the water resources of both the State of California and MWD. DWR limited supplies from the SWP to only 5 percent of contractor's established allocations. This allocation was the lowest ever in the history of the SWP. MWD was able to meet demands in 2014 by relying heavily on storage reserves to make up for the historically low SWP allocation. As a result, in 2015, to reduce withdrawals from MWD's dry-year storage reserves, MWD implemented the Water Supply Allocation Plan at a Level 3 Regional Shortage Level. In May 2016, citing improved water supply conditions and reduced water use due to conservation, MWD voted to end the Water Supply Allocation Plan. By April 2017, citing improved water supply conditions, MWD voted to downgrade the water shortage classification to a Condition 1 Water Supply Watch.[29]

MWD's long-term plans to meet its member agencies' growing reliability needs are through improvements to the SWP; conjunctive management efforts on the Colorado River; water transfer programs; outdoor conservation measures; and development of additional local resources, such as recycling, brackish water desalination, and seawater desalination. MWD has more than 5 million acre-feet (AF) of storage capacity available in reservoirs and banking/transfer programs. MWD was estimated to have 1.29 million AF of water in Water Surplus Drought Management storage and an additional 626,000 AF in emergency storage in January 2017.[30]

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[28] MWD, Who We Are, 2020.

[29] LADWP, Water Supply Assessment for the Kaiser Permanente Los Angeles Medical Center Project (WSA), December 2018, p. 30, December 2018, provided as Appendix G-1 of this Draft EIR.

[30] LADWP, WSA, p. 33, December 2018, provided as Appendix G-1 of this Draft EIR.

(ii) LADWP

The City receives water supplies from LADWP, which is responsible for ensuring that water demand within the City is met and that State and federal water quality standards are achieved. As shown in **Table IV.O.1-1**, City water supplies are derived from the following sources:

- The LAA, approximately 38 percent
- Groundwater, approximately 11 percent
- Purchases from MWD, approximately 49 percent
- Recycled water (for industrial and irrigation purposes), approximately 2 percent[31]

The amount of water obtained from these sources varies from year to year and is primarily dependent on weather conditions and demand. Water storage is essential for the LADWP to supply water during high demand conditions and for firefighting and emergencies. The City's water system includes 115 tanks and reservoirs, ranging in size from 10,000 gallons to 60 billion gallons, with a total capacity of approximately 315,245 AF. Water is distributed through a network of 7,336 miles of water mains, ranging from 4 inches to 120 inches in diameter. Because of the size and range in elevation, the system is divided into 102 pressure zones, with almost 90 booster pumping stations to provide water service at higher elevations.[32] Snowmelt runoff from the Eastern Sierra Nevada Mountains is collected and conveyed to the City via the LAA. The City holds water rights in the Eastern Sierra Nevada, where LAA supplies originate. Average deliveries from LAA system have been approximately 111,293 AF of water annually from 2011 to 2016. The average annual long-term LAA delivery between 2015 and 2040, using the 50-year average hydrology from 1961 to 2011, is expected to be approximately 278,000 AFY and gradually decline to 267,000 AFY due to projected climate change impacts. However, the projected LAA delivery may increase to 286,000 AFY by 2024, due to water conservation at Owens Lake.[33]

31 LADWP, Facts and Figures, 2013.
32 LADWP, Facts and Figures, 2013.
33 LADWP, WSA, p. 26, December 2018, provided as Appendix G-1 of this Draft EIR.

TABLE IV.O.1-1
LADWP WATER SUPPLY

Calendar Year	Los Angeles Aqueduct	Local Ground-Water	MWD	Recycled Water	Transfer,Spread, Spills, and Storage	Total
2007	127,392	88,041	439,353	3,595	-57	658,438
2008	148,407	64,604	427,422	7,048	1,664	645,817
2009	137,261	66,998	351,959	7,570	554	563,234
2010	251,126	68,346	205,240	6,900	-938	532,550
2011	357,752	49,915	119,481	7,708	-153	535,009
2012	166,858	59,109	326,123	5,965	1,182	556,873
2013	64,690	66,272	438,534	9,253	-2,404	581,153
2014	63,960	96,394	391,307	11,307	2,020	560,948
2015	33,244	80,155	378,539	9,829	430	501,337
2016	95,573	72,503	314,336	9,095	-981	492,487
2017	380,329	14,695	113,033	8,509	5,730	510,835

SOURCE: LADWP, WSA for the Kaiser Permanente Los Angeles Medical Center Project, December 11, 2018, p. 24, provided in Appendix G-1 of this Draft Environmental Impact Report (EIR).
NOTE: Units are in acre feet (AF).

(b) Groundwater

LADWP pumps from three adjudicated basins within the City. The San Fernando Basin and Sylmar Basins are subject to the judgment in the *City of Los Angeles vs. City of San Fernando, et al.* Groundwater pumping by LADWP and other parties is tracked and reported to the court-appointed Upper Los Angeles River Area (ULARA) Watermaster. The Central Basin is also subject to court judgment. Pumping is reported to the Water Replenishment District of California, which is the administrative member of the Central Basin Water Rights Panel.

The San Fernando Basin is the largest of the basins within ULARA. This basin consists of 112,000 acres of land and comprises 91.2 percent of ULARA valley fill area. The City had accumulated 523,529 AF of stored groundwater in the San Fernando Basin, as of October 1, 2016. A portion of this water is available for the City to withdraw during normal and dry years, or in an emergency, in addition to the City's approximate 87,000 AF annual entitlement. With San Fernando Basin remediation facilities slated to be operational by fiscal year 2022 (see Groundwater Quality section below), the groundwater storage credits may be used to optimize pumping beyond the City's annual entitlement.[34]

[34] LADWP, WSA, p. 27, December 2018, provided as Appendix G-1 of this Draft EIR.

While most of the City's groundwater is extracted from the San Fernando Basin, the Sylmar Basin also provides local groundwater supply. The Sylmar Basin is in the northern part of the ULARA, consists of 5,600 acres, and comprises 4.6 percent of ULARA valley fill area. The City's current annual entitlement is 3,570 AF. Sylmar Basin production is anticipated to increase to 4,170 AFY from 2018 to 2033, to utilize groundwater the City has accumulated into storage, at which point production would return to 3,570 AFY by 2034.[35]

The City also has adjudicated groundwater extraction rights in the Central Basin. LADWP's annual entitlement is 17,236 AF. The City has also accumulated groundwater storage in the Central Basin, and pumping can be temporarily increased until stored water credits have been expended. From July 2015 to June 2016, the City extracted 73,898 AF and 683 AF from the San Fernando and Central Basins, respectively. The City plans to continue to develop production from its groundwater basins in the coming years to offset reductions in imported supplies. However, extraction from the basins may be limited by water quality, sustainable pumping practices, and groundwater elevations.[36]

Groundwater produced by the City from the San Fernando, Sylmar, and Central Basins from 2012 to 2018 is shown on **Table IV.O.1-2**, as well as groundwater pumping projections for average, single-dry, and multi-year dry weather conditions in 5-year increments. This table excludes 15,000 AFY of anticipated pumping in the San Fernando Basin from stormwater recharge, as well as up to 30,000 AFY of additional groundwater recharge with highly treated water from the Donald C. Tillman Water Reclamation Plant, planned for 2024 and beyond.[37]

35 LADWP, WSA, p. 27, December 2018, provided as Appendix G-1 of this Draft EIR.
36 LADWP, WSA, p. 27, December 2018, provided as Appendix G-1 of this Draft EIR.
37 LADWP, WSA, p. 27, December 2018, provided as Appendix G-1 of this Draft EIR.

TABLE IV.O.1-2
LOCAL GROUNDWATER BASIN SUPPLY

Fiscal Year (July-June)	San Fernando Basin (in Acre-Feet)	Sylmar Basin (in Acre-Feet)	Central Basin (in Acre-Feet)
2012–2013	50,550	1,952	6,310
2013–2014	68,784	891	9,727
2014–2015	80,097	1	6,948
2015–2016	75,958	683	8,395
2016–2017	55,116	0	3,005
2017–2018	22,259	0	0.77
2019–2020*	90,000	4,170	18,500
2024–2025*	88,000	4,170	18,500
2029–2030*	84,000	4,170	18,500
2034–2035*	92,000	4,170	18,500
2039–2040*	92,000	3,570	18,500

SOURCE: LADWP, WSA, p. 28, December 11, 2018, provided in Appendix G-1 of this Draft EIR.
NOTE:
* Projected production: LADWP 2015 UWMP, Exhibit 61.

(i) Groundwater Quality

Although local groundwater has historically provided the City with a high-quality, reliable water supply, existing groundwater contamination in the San Fernando Basin has impacted LADWP's ability to fully utilize this valuable resource. LADWP has developed programs to accelerate treatment for the San Fernando Basin groundwater, which includes a comprehensive Groundwater System Improvement Study, installing monitoring wells, interim wellhead treatment, and working with regulatory agencies and government officials to identify those responsible for the contamination.[38] For example, in early 2018, the City implemented the North Hollywood West Groundwater Treatment Project, a $92 million project to clean up and restore the use of groundwater as a safe, high-quality source of drinking water in the San Fernando Valley. Remediation of wellheads throughout the basin, including improvements to water treatment facilities, would ensure a reliable and local water source for the City. The City has a goal to reduce purchased water by at least 50 percent by 2025 through the Mayor's Sustainable City Plan.[39] As the LADWP continues with its clean-up of the contaminated water in the San

[38] LADWP, 2015 UWMP, pp. 6–9, April 2016.
[39] City of Los Angeles, L.A.'s Green New Deal, Sustainable City pLAn, 2019.

Fernando Basin, groundwater will play an increasingly important role in the water supply portfolio of the City.[40]

(3) Regional Water Demand

Demographic data from the Southern California Association of Government's (SCAG's) 2012 Regional Transportation Plan (RTP), as well as billing data for each major customer class, weather, conservation, price of water, personal income, family size, economy, and drought conservation effect, were factors used in forecasting future water demand growth. **Table IV.O.1-3** summarizes the demographic projections for the LADWP service area. Service area population is expected to continue to grow over the next 25 years at a rate of 0.5 percent annually.[41]

TABLE IV.O.1-3
DEMOGRAPHIC PROJECTIONS FOR THE LADWP SERVICE AREA

Demographic	2020	2025	2030	2035	2040
Population[1]	4,026,891	4,168,131	4,210,042	4,351,408	4,441,545
Housing[2]					
Single-Family	650,746	635,348	652,379	675,540	682,412
Multifamily	828,744	900,523	940,549	973,978	1,031,239
Total Housing	**1,479,490**	**1,535,871**	**1,592,928**	**1,649,518**	**1,713,651**
Persons per Household	*2.66*	*2.66*	*2.59*	*2.58*	*2.54*
Employment[3]					
Commercial	1,704,864	1,749,994	1,778,566	1,807,774	1,869,383
Industrial	136,023	135,594	134,061	131,686	131,285
Total Employment	**1,840,887**	**1,885,588**	**1,922,628**	**1,939,460**	**2,000,667**

SOURCE: LADWP 2015 UWMP; data taken from SCAG RTP (2012), modified to represent LADWP's service area.
NOTES:
1 Number of people
2 Units of housing
3 Number of jobs (full-time equivalent)

The LADWP UWMP is updated every 5 years, as required by California law. This process entails, among other requirements, an update of water supply and water demand projections for water agencies. The 2015 UWMP projects yearly water demand to reach 675,685 AF by year 2040, with passive water conservation savings including codes, ordinances, and conservation phases for each of the major categories of demand. As shown below in **Table**

40 LADWP, 2015 UWMP, p. 12-23, April 2016.
41 LADWP, 2015 UWMP, p. ES-7, April 2016.

IV.O.1-4, water demand projections with passive water conservation savings in 5-year increments through 2040 are available in the UWMP for each of the major customer classes (single-family, multifamily, commercial/governmental, and industrial). The targeted water demands based on the water use reduction goals established in the City pLAn are also listed. Adding LADWP's planned recycled water supply to the pLAn potable water demand targets yields an overall target for total water demands.

TABLE IV.O.1-4
WATER DEMAND FORECAST WITH PASSIVE CONSERVATION SAVINGS FOR LADWP SERVICE AREA

Water Demands by Sector (Acre Feet)							
Fiscal Year Ending	**Single-Family**	**Multifamily**	**Commercial/ Government**	**Industrial**	**Non-Revenue**	**Total**	**pLAn Target Use***
2020	222,958	184,679	148,600	18,869	36,709	611,815	485,600
2025	224,729	206,065	155,994	19,235	38,682	644,706	533,000
2030	226,770	211,454	156,788	18,701	39,173	652,886	540,100
2035	231,776	216,071	156,186	18,104	39,711	661,848	551,100
2040	231,767	225,994	159,554	17,829	40,541	675,685	565,600

SOURCE: LADWP, 2015 UWMP, April 2016.
NOTE:
* Targeted water demands set forth in the L.A.'s Green New Deal, Sustainable City pLAn.

The UWMP does not rely on individual development demands to determine area-wide growth. Rather, the growth in water use for the entire service area was considered in developing long-term water projections for the City through the year 2040.[42]

LADWP is developing a path towards sustainability as outlined in the City's pLAn, by accelerating investments in conservation, water recycling, stormwater capture, and local groundwater development and remediation. The City plans to meet all future increases in water demand through a combination of local water supply development.[43]

(4) Supply Reliability Assessment

To demonstrate LADWP's water supply reliability, **Table IV.O.1-5** summarizes the water demands and supplies for single dry year conditions through 2039-2040, which represents the City's planned supply portfolio to meet projected water demands under the

42 LADWP, 2015 UWMP, pp. 11-29, April 2016.
43 L.A.'s Green New Deal, Sustainable City pLAn, 2019.

most critical hydrologic conditions. **Table IV.O.1-6** summarizes the water demands and supplies for average year conditions, which has the highest probability of occurring.

TABLE IV.O.1-5
SERVICE AREA RELIABILITY ASSESSMENT FOR SINGLE DRY YEAR

Demand and Supply Projections (AF)	Single Dry Year (FY 2014–2015)				
	2020	**2025**	**2030**	**2035**	**2040**
Total Water Demand[1]	**642,400**	**676,900**	**685,500**	**694,900**	**709,500**
pLAn Water Demand Target	**485,600**	**533,000**	**540,100**	**551,100**	**565,600**
Existing/Planned Supplies					
Conservation (Additional Active[2] and Passive[3] after FY 14/15	156,700	143,700	145,100	143,500	143,500
Los Angeles Aqueduct[4]	32,200	51,900	51,400	51,000	50,600
Groundwater[5] (Net)	112,670	110,670	106,670	114,670	114,070
Recycled Water					
-Irrigation and Industrial Use	19,800	29,000	39,000	42,200	45,400
-Groundwater Replenishment	0	30,000	30,000	30,000	30,000
Stormwater Capture					
-Stormwater Reuse (Harvesting)	100	200	300	300	400
-Stormwater Recharge (Increased Pumping)	2,000	4,000	8,000	15,000	15,000
Subtotal	*323,470*	*369,470*	*380,470*	*396,670*	*398,970*
MWD Water Purchases					
With Existing/Planned Supplies	318,930	307,430	305,030	298,230	310,530
Total Supplies	**642,400**	**676,900**	**685,500**	**694,900**	**709,500**
Potential Supplies					
Water Transfers[6]	40,000	40,000	40,000	40,000	40,000
Subtotal	*40,000*	*40,000*	*40,000*	*40,000*	*40,000*
MWD Water Purchases					
With Existing/Planned/ Potential Supplies	278,930	267,430	265,030	258,230	270,530
Total Supplies	**642,400**	**676,900**	**685,500**	**694,900**	**709,500**

SOURCE LADWP, 2015 UWMP, April 2016.
NOTES: AF = acre-feet; FY = fiscal year.
1 Total Demand with existing passive conservation.
2 Cumulative hardware savings since late 1980s reached 188,034 AFY by 2014–2015.

TABLE IV.O.1-5
SERVICE AREA RELIABILITY ASSESSMENT FOR SINGLE DRY YEAR

Demand and Supply Projections (AF)	Single Dry Year (FY 2014–2015)				
	2020	2025	2030	2035	2040

[3] Additional non-hardware conservation required to meet water use reduction goals set in the Sustainable City pLAn.
[4] LADWP anticipates conserving 20,000 AFY of water usage for dust mitigation on Owens Lake after the Master Project is implemented in FY 2023–2024. Los Angeles supply is estimated to decrease 0.1652% per year due to climate change impact.
[5] Net groundwater excludes Stormwater Recharge and Groundwater Replenishment supplies that contribute to increased pumping. The LADWP Groundwater Remediation project in the San Fernando Basin is expected in operation in 2021–2022. Storage credit of 5,000 AFY will be used to maximize pumping in 2019–2020 and thereafter. Sylmar Basin production will increase to 4,170 AFY from 2015–2016 to 2038–2039 to avoid the expiration of stored water credits, then go back to its entitlement of 3,570 AFY in 2039–2040.
[6] Potential water transfer occurs in dry years with stored water acquired in average and wet years.

TABLE IV.O.1-6
SERVICE AREA RELIABILITY ASSESSMENT FOR AVERAGE WEATHER YEAR

Demand and Supply Projections (AF)	Average Weather Conditions (FY 1961–1962 to 2010–2011)				
	2020	2025	2030	2035	2040
Total Water Demand[1]	**611,800**	**644,700**	**652,900**	**661,800**	**675,700**
pLAn Water Demand Target	**485,600**	**533,000**	**540,100**	**551,100**	**565,600**
Existing/Planned Supplies					
Conservation (Additional Active[2] and Passive[3] after FY 14/15	125,800	110,900	111,600	109,100	108,100
Los Angeles Aqueduct[4]	275,700	293,400	291,000	288,600	286,200
Groundwater[5] (Net)	112,670	110,670	106,670	114,670	114,070
Recycled Water					
-Irrigation and Industrial Use	19,800	29,000	39,000	42,200	45,400
-Groundwater Replenishment	0	30,000	30,000	30,000	30,000
Stormwater Capture					
-Stormwater Reuse (Harvesting)	400	800	1,200	1,600	2,000
-Stormwater Recharge (Increased Pumping)	2,000	4,000	8,000	15,000	15,000
Subtotal	*536,370*	*578,770*	*587,470*	*601,170*	*600,770*

TABLE IV.O.1-6
SERVICE AREA RELIABILITY ASSESSMENT FOR AVERAGE WEATHER YEAR

Demand and Supply Projections (AF)	Average Weather Conditions (FY 1961–1962 to 2010–2011)				
	2020	**2025**	**2030**	**2035**	**2040**
MWD Water Purchases					
With Existing/Planned Supplies	75,430	65,930	65,430	30,630	74,930
Total Supplies	**611,800**	**644,700**	**652,900**	**661,800**	**675,700**
Potential Supplies					
Water Transfers[6]	40,000	40,000	40,000	40,000	40,000
Subtotal	*40,000*	*40,000*	*40,000*	*40,000*	*40,000*
MWD Water Purchases					
With Existing/Planned/Potential Supplies	35,430	25,930	25,430	20,630	34,930
Total Supplies	**611,800**	**644,700**	**652,900**	**661,800**	**675,700**

SOURCE: LADWP, 2015 UWMP, April 2016.
NOTES: AF = acre-feet; FY = fiscal year
1 Total Demand with existing passive conservation.
2 Cumulative hardware savings since late 1980s reached 188,034 AFY by 2014–2015.
3 Additional non-hardware conservation required to meet water use reduction goals set in the Sustainable City pLAn.
4 LADWP anticipates conserving 20,000 AFY of water usage for dust mitigation on Owens Lake after the Master Project is implemented in FY 2023–2024. Los Angeles supply is estimated to decrease 0.1652% per year due to climate change impact.
5 Net groundwater excludes Stormwater Recharge and Groundwater Replenishment supplies that contribute to increased pumping. The LADWP Groundwater Remediation project in the San Fernando Basin is expected in operation in 2021–2022. Storage credit of 5,000 AFY will be used to maximize pumping in 2019-20 and thereafter. Sylmar Basin production will increase to 4,170 AFY from 2015–2016 to 2038–2039 to avoid the expiration of stored water credits, then go back to its entitlement of 3,570 AFY in 2039–2040.
6 Potential water transfer occurs in dry years with stored water acquired in average and wet years.

(5) Existing Project Water Demand

Based on LADWP billing data, existing water demand from the 234,325 square feet of existing medical office buildings (MOBs) is 5,960 gallons per day (gpd), or approximately 7 AFY (**Table IV.O.1-7**).

TABLE IV.O.1-7
EXISTING WATER DEMAND

Existing Use to be Removed	Size (sf)	Existing Water Use (gpd)*
1505 North Edgemont Street	79,356	988
1526 North Edgemont Street	120,557	1,501
1517 North Vermont Avenue	19,199	457
1245 North Vermont Avenue	15,213	3,014
Parking Structure	166,085	0
Total	400,410	5,960

SOURCE: LADWP, WSA for the Kaiser Permanente Los Angeles Medical Center Project, December 11, 2018, p. 9, provided in Appendix G-1 of this Draft EIR.
NOTES: sf = square feet**;** gpd = gallons per day
***** The existing water demand is based on the LADWP billing data.

3. Project Impacts

a) Thresholds of Significance

In accordance with the State CEQA Guidelines Appendix G (Appendix G), the Project would have a significant impact related to water supply and infrastructure if it would:

Threshold (a): ***Require or result in the relocation or construction of new or expanded water facilities, the construction or relocation of which could cause significant environmental effects; or***

Threshold (b): ***Have insufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years.***

This analysis relies on the Appendix G Thresholds.[44] The analysis uses factors and considerations identified in the 2006 L.A. CEQA Thresholds Guide, as appropriate, to assist in answering the Appendix G Threshold questions. The factors to evaluate water supply impacts include:

- The total estimated water demand for the Project;
- Whether sufficient capacity exists in the water infrastructure that would serve the Project, taking into account the anticipated conditions at project buildout;

[44] Thresholds related to hydrology, wastewater, solid waste, electric power, natural gas, and telecommunications are included in Sections IV.H, IV.O.2, IV.O.3, and IV.O.4, respectively.

- The amount by which the Project would cause the projected growth in population, housing, or employment for the Community Plan area to be exceeded in the year of the Project completion; and

- The degree to which scheduled water infrastructure improvements or project design features would reduce or offset service impacts.

b) Methodology

(1) Water Infrastructure

The potential Project impacts on the existing public water infrastructure are based on the assumption that Project Design Feature **PDF-WTR-1** would be implemented, per LADWP and Los Angeles Department of Public Works requirements.

(2) Water Supply

Based on a Project-specific WSA, the analysis of the Project's impact relative to water supply is based on a calculation of the Project's anticipated net water demand. Initially, in order to establish baseline water use, the existing water demand to be removed as part of the Project (i.e., through demolition) was estimated. Consistent with the LADWP's methodology, the estimated net water demand for the Project is calculated by applying the LASAN 2012 sewer generation factors to proposed Project operations. Sewer generation factors are factors of how much wastewater is generated (gallons per day) per unit (per square feet, per dwelling unit, per seat, etc.). LASAN publishes a list of sewer generation factors for approximately 175 different building use types in the City and updates factors to adjust for water conservation efforts and increased efficiencies in new appliances and plumbing fixtures (see Appendix G-6, Sewage Generation Factor Table). Outdoor landscape water demand is estimated per CCR, Title 23, Division 2, Chapter 2.7, Model Water Efficiency Landscape Ordinance. Historical billing records are used to establish existing baseline water demand on the property. The resulting net increase in water demand, which is the projected additional water demand of the Project, is calculated by subtracting the existing baseline water demand and water-saving amount from the total proposed water demand.

For purposes of assessing cumulative water demand impacts, the analysis below is based on the water demand projections set forth in the City's 2015 UWMP. Because water demands are driven by demographics (population, housing, and employment), implementation of water conservation programs, behavioral practices of water users, and weather, this cumulative analysis focuses on the Project's consistency with the broader growth projections of the 2015 UWMP instead of the approximate 1.5-mile radius of influence of the related projects list identified in Chapter II, Environmental Setting, of this

Draft EIR. The LADWP's service area includes the entire City and areas outside the City's boundary, including portions of West Hollywood, Culver City, Universal City, and small parts of the County of Los Angeles.

c) Project Design Features

The following project design features are proposed with regard to water supply:

> **PDF-WTR-1**: The Project will include installation of new service laterals and meters for fire water, domestic water, and irrigation uses, as needed to connect to the existing water mainlines adjacent to the proposed building sites, as determined by the Los Angeles Department of Water and Power and Los Angeles Department of Public Works. Project-related infrastructure will be designed and installed to meet all applicable City requirements.

Water conservation features include a range of techniques that enhance site sustainability. **PDF-HYD-1** through **PDF-HYD-18** will also be incorporated into the Project to reduce potentially significant impacts related to water supply.

d) Analysis of Project Impacts

Threshold (a): Would the Project require or result in the relocation or construction of new or expanded water facilities, the construction or relocation of which could cause significant environmental effects?

(1) Impact Analysis

(a) Construction

During construction, water[45] would be required intermittently for dust control, equipment cleaning, soil grading, and preparation during each phase of the Project. The latter phases of construction normally require less water usage. Prior to construction, with approval from LADWP, temporary water supply needs during construction would be obtained from existing metered water connections or fire hydrants.

The Project would require the construction of new on-site water distribution lines, as well as the relocation of existing lines during each phase of construction. Installation of new water infrastructure would likely be limited to on-site water distribution and minor off-site work associated with connections to the public mainlines.

[45] Thresholds related to wastewater, solid waste, electric power, natural gas, and telecommunications are included in Sections IV.O.2, IV.O.3, and IV.O.4, respectively.

Impacts associated with the construction of new water distribution lines would primarily be related to trenching in order to install and/or remove underground lines. Prior to ground disturbance, Project contractors would coordinate with LADWP to identify the locations and depth of all lines. LADWP would be notified in advance of proposed ground disturbance activities to avoid water lines and disruption of water service. As discussed in Section IV.M, Transportation, of this Draft EIR, in accordance with Project Design Feature **PDF-TRF-1**, the Project would include implementation of a Construction Staging and Traffic Management Plan to reduce temporary pedestrian and traffic impacts during construction, including construction of water distribution lines and connections to the public main.

Therefore, Project construction would not require or result in the relocation or construction of new or expanded water facilities, the construction or relocation of which would cause significant environmental effects, and, as such, short-term construction impacts would be less than significant.

(b) Operation

LADWP would continue to provide water service to the Project Site, as under existing conditions. LADWP would review street improvement plans and if adjustments to water facilities are necessary, Kaiser Permanente would be required to pay for the cost of such improvements, thus ensuring there would be sufficient capacity. The on-site water facilities would be connected to existing water mains in adjacent streets. The service laterals would be adequately sized to accommodate the on-site fire suppression system demand and domestic demand flowing simultaneously. The new water services would also include backflows and be metered separately per City requirements. LAMC Article 7, Fire Protection and Prevention, Section 57.507.3, sets the fire flow requirements for the Project. These guidelines, in addition to the requirements set by the City Fire Chief, prescribe the fire flow pressure and duration requirements and hydrant spacing requirements for the Project. **Therefore, while the Project may require new connections from existing facilities, with regulatory compliance with the LAMC and coordination with LADWP, Project operation would not result in the relocation or construction of new or expanded water facilities, the construction or relocation of which would cause significant environmental effects. As such, operational impacts on water infrastructure would be less than significant.**

(2) Mitigation Measures

Impacts related to the relocation, construction, or operation of new or expanded water facilities as a result of the Project were determined to be less than significant. Therefore, no mitigation measures are required.

(3) Levels of Significant after Mitigation

Impacts related to the relocation, construction, or operation of new or expanded water facilities as a result of the Project were determined to be less than significant without mitigation. Therefore, no mitigation measures were required or included, and the impact level remains less than significant.

Threshold (b): Would the Project have sufficient water supplies available to serve the Project and reasonably foreseeable future development during normal, dry, and multiple dry years?

(1) Impact Analysis

(a) Construction

As discussed under Threshold (a), during construction, water would be required intermittently for dust control, equipment cleaning, soil grading, and preparation during each phase of the Project. Prior to construction, with approval from the LADWP, temporary water supply needs during construction would be obtained from existing metered water connections or fire hydrants. **Therefore, sufficient water supplies would be available to serve Project construction and reasonably foreseeable future development during normal, dry, and multiple dry years, and, as such, short-term construction impacts would be less than significant.**

(b) Operation

Project characteristics and components are described in **Table III-1**, Project Summary Table, in Chapter 3 of this Draft EIR. However, LADWP used more conservative estimates in preparation of the WSA (Appendix G-1) for the proposed Project. Based on the WSA, Project components include the removal of approximately 400,410 square feet of existing improvements, including 166,085 square feet of parking structures, which have no existing water use. As previously discussed, based on LADWP billing data, existing water demand from the 234,325 square feet of existing MOBs is 5,960 gpd, or approximately 7 AFY (Table IV.O.1-7).

As summarized in **Table IV.O.1-8**, Option A and Option B would result in a net increase in domestic water demand of 124,771 gpd (140 AFY) and 99,193 gpd (111 AFY), respectively.

TABLE IV.O.1-8
WATER CONSUMPTION FROM PROPOSED USES

Land Use	Proposed	Water Demand Rate[1]	Demand
Option A			
Site 1 – MOB	130,000 sf	0.25 gpd/sf	32,500 gpd
Site 2 – MOB	50,000 sf	0.25 gpd/sf	12,500 gpd
Site 3 – MOB	41,500 sf	0.25 gpd/sf	10,375 gpd
Site 4 – MOB	177,300 sf	0.25 gpd/sf	44,325 gpd
Site 5 – Retail	2,300 sf	0.025 gpd/sf	58 gpd
Base Demand Adjustment (estimated savings from Ordinance 180822)[2]	—	—	1,060 gpd
Landscaping	13,240 sf	—	1,237 gpd
Site 1 – Parking	302,884 sf	—	—
Site 5 – Parking	230,600 sf	—	—
Site 6 – Parking Expansion	122,400 sf	—	—
Covered Parking[3]	655,884 sf	0.02 gpd/sf	431 gpd
Cooling Tower Medical Office/Retail[4]	2,260 tons	18 gpd/ton	40,271 gpd
Subtotal			*142,757 gpd*
Option A Reductions			
Existing Uses to be Removed	—	—	-5,960 gpd
LA Green Building Code	—	—	-11,324 gpd
Applicant-Proposed Conservation	—	—	-702 gpd
Total Reductions			**-17,986 gpd**
Option A Net Water Demand			**124,771 gpd or 139.76 AFY**
Option B			
Site 1 – MOB	130,000 sf	0.25 gpd/sf	32,500 gpd
Site 2 – MOB	50,000 sf	0.25 gpd/sf	12,500 gpd
Site 3 – MOB	73,500 sf	0.25 gpd/sf	18,375 gpd
Site 4 – Hospital	105 beds	70 gpd/bed	7,350 gpd
Site 5 – Retail	2,300 sf	0.025 gpd/sf	58 gpd
Base Demand Adjustment (estimated savings from Ordinance 180822)	—	—	768 gpd
Landscaping	13,240 sf	—	1,237 gpd
Site 1 – Parking	302,884 sf	—	—

TABLE IV.O.1-8
WATER CONSUMPTION FROM PROPOSED USES

Land Use	Proposed	Water Demand Rate[1]	Demand
Site 5 – Parking	230,600 sf	—	—
Site 6 – Parking Expansion	122,400 sf	—	—
Covered Parking	655,884 sf	0.02 gpd/sf	431 gpd
Cooling Tower Medical Office/Retail	1,437 tons	18 gpd/ton	25,598 gpd
Cooling Tower Hospital	1,005 tons	36 gpd/ton	35,808 gpd
Subtotal			*134,625 gpd*
Option B Reductions			
Existing Uses to be Removed	—	—	-5,960 gpd
LA Green Building Code	—	—	-22,725 gpd
Applicant-Proposed Conservation	—	—	-6,747 gpd
Total Reductions			**-35,432 gpd**
Option B Net Water Demand			**99,193 gpd or 111.11 AFY**

SOURCE: LADWP, WSA, p. 10, December 11, 2018, provided in Appendix G-1 of this Draft EIR.
NOTES: gpd = gallons per day; sf = square feet; AFY = acre-feet per year; MOB = medical office building.
1 Based on sewage generation rates provided by LASAN. All calculations rounded to the nearest whole.
2 Base Demand Adjustment is the estimated savings due to Ordinance No. 180822 accounted for in the current version of the LASAN Sewer Generation Rates.
3 Auto parking water uses are based on LASAN Sewer Generation Rates table, and 12 times/year cleaning assumption.
4 Estimated MOB operating 12 hours/day, 6 days/week, 6 cycles of concentration, and 55 percent of chiller capacity. Hospital Expansion 24 hours/day, 7 days/week, 6 cycles of concentration, and 55 percent of chiller capacity.

New construction of 656,490 square feet under Option A would include approximately 180,000 square feet of medical office space on Sites 1 and 2 combined, 41,500 square feet of medical office space on Site 3, and 177,300 square feet of medical office space on Site 4. This option would also include covered parking, landscaping, and cooling towers. The estimated net additional water demand under Option A is 140 AFY. As discussed above in Section IV.O.1.3b, Methodology, the water demand for the proposed Project was calculated using water use factors determined by the 2012 LASAN Generation Rates (**Table 1-A** of Appendix G-1).

New construction of 724,900 square feet under Option B would include approximately 180,000 square feet of medical office space on Sites 1 and 2 combined, 73,500 square feet of medical office space on Site 3, and a 105-bed hospital addition on Site 4. This option would also include covered parking, landscaping, and cooling towers. The estimated net additional water demand for Option B is 111 AFY, using similar generation rates.

Tables II-A and II-B of the Project WSA (Appendix G-1) estimate the total volume of water conservation, based on conservation measures Kaiser Permanente has committed to for the proposed Project, which include Project Design Features **PDF-HYD-1** through **PDF-HYD-8**. Based on these tables, and as indicated in Table IV.O.1-8 above, more water savings would be realized under Option B than Option A, as Option B proposes substantially more low-flow toilets and showerheads for the Site 3 medical office building.

Currently, water supply for the City is derived from the LAA (38 percent), groundwater (11 percent), MWD (49 percent), and recycled water (2 percent). The City relies heavily on imported water to supply the water demand of residential, commercial, and industrial land uses within the City. The City is currently implementing the North Hollywood West Groundwater Treatment Project, which includes the remediation of groundwater wellheads that the City owns, as well as improved infrastructure for treating groundwater for potable uses. The City's goal is to obtain water locally, to reduce import water costs, as well as add to the water supply for the City and reduce the dependence upon imported water. As illustrated in **Table IV** of the Project WSA (Appendix G-1), groundwater supplies from the San Fernando, Sylmar, and Central Groundwater Basins are anticipated to increase from 22,259 AFY in 2017/2018 to 114,070 by 2039/2040. These additional groundwater supplies would be available for Phases 1 through 3 of the Project, which will be completed in 2028 to 2030.

As summarized in Table IV.O.1-8, Option A and Option B would result in an increase in domestic water demand of 140 AFY and 111 AFY, respectively. As indicated in Table IV.O.1-4, by 2040 LADWP's projected water demand will be 675,685 AFY, or 565,600 AFY if pLAn conservation goals are achieved. The more conservative Option A water demand of 140 AFY is equivalent to approximately 0.02 percent of LADWP total water demand under both conditions (i.e., with or without water conservation goals being met).

The anticipated Project water demand has been accounted for in the City's overall total demand projections in the LADWP 2015 UWMP, using a service area-wide approach that does not rely on individual development demand. The UWMP utilized the SCAG's RTP data that provides for more reliable water demand forecasts, taking into account changes in population, housing units, and employment. Based on the Department of City Planning's determination that the proposed Project is consistent with the demographic forecasts for the City, from the 2012 SCAG's RTP, LADWP finds the Project's water demand is included in the City's LADWP 2015 UWMP water demand projection.[46,47]

The UWMP forecasts adequate water supplies to meet all projected water demands in the City through 2040. In addition, as discussed within the WSA (Appendix G-1), the collaboration between the LADWP and MWD ensures that the City's anticipated water

[46] LADWP, WSA, p. 37, December 2018, provided as Appendix G-1 of this Draft EIR.
[47] LADWP, 2015 UWMP, April 2016.

demands are incorporated into the development of MWD's long-term IWRP. This plan directs a continuous regional effort to develop regional water resources involving all MWD member agencies, including the City. Successful implementation of MWD's IWRP has resulted in reliable supplemental water supplies for the City from MWD.

The maximum of 140 AFY increase in net water demand of the proposed Project, through the year 2040, fits within the LADWP's projection of growth and water demand totals throughout normal, single-dry, and multiple dry years. As indicated in the Project-specific WSA, based on the UWMP, LADWP finds it will be able to meet the proposed water demand of the Project, as well as existing and planned future water demands of its service area. In addition, based on will-serve letters received from the LADWP (Appendices G-2, G-3, G-4, and G-5), the proposed Project can be supplied with water from the municipal system. Water conservation-related Project Design Features **PDF-HYD-1** through **PDF-HYD-8** would reduce operational impacts associated with water supplies, as these features would reduce the Project's water demand. **Therefore, sufficient water supplies would be available to serve Project operations and reasonably foreseeable future development during normal, dry, and multiple dry years, and, as such, operational impacts related to water supply would be less than significant.**

(2) Mitigation Measures

Impacts related to the generation of water supply reliability during construction and operation of the Project were determined to be less than significant. Therefore, no mitigation measures are required.

(3) Levels of Significant after Mitigation

Impacts related to the generation of water supply reliability during construction and operation of the Project 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) Water Infrastructure

The Project, in conjunction with growth forecasted in the City, would cumulatively increase the demand for water, thus potentially resulting in cumulative impacts on the existing water supply and water infrastructure. Cumulative growth in the greater Project area includes the 85 related projects identified in **Table II-2**, Related Projects, in Chapter II of this Draft EIR.

Related projects would be subject to LADWP review to ensure that the existing water utility facilities would be adequate to meet the domestic and fire water demands of each related project. Related projects would be subject to LADWP and City requirements regarding infrastructure improvements needed to meet respective water demands, fire flow, and pressure requirements. The LADWP, City of Los Angeles Department of Public Works, and Los Angeles Fire Department would conduct ongoing evaluations to ensure facilities are adequate. **As a result, construction of the Project, in combination with related projects, would not result in cumulatively considerable impacts related to replacement or upgrades of existing water supply infrastructure. Impacts would be less than significant.**

(b) Water Supply

As reported in the 2015 UWMP, the population within LADWP's service area increased from 2.97 million in 1980 to approximately 3.99 million in 2015, representing an average annual growth rate of approximately 1.0 percent. The total number of housing units increased from 1.10 million in 1980 to approximately 1.39 million in 2015, representing an average annual growth rate of approximately 0.8 percent.

Implementation of the Project, in conjunction with the 85 related projects identified in Table II-2, Related Projects, would increase demand for water services provided in the LADWP service area. The related projects cumulative water demand is provided in Table IV.M.1-9, Estimated Cumulative Water Demand, below. As shown in **Table IV.O.1-9**, the net water demand of the proposed Project and the 85 related projects totals approximately 2,580,191 gpd.

TABLE IV.O.1-9
ESTIMATED CUMULATIVE WATER DEMAND

Type of Use	Size	Water Demand Rate (gpd/unit)[1]	Total Water Demand (gpd)
Related Projects			
Multi-family Residential[2]	10,470 du	150 gpd/du	1,570,500
Bar and Cocktail Area	2,497 sf	0.72 gpd/sf	1,798
Hotel	2,275 room	120 gpd/room	273,000
Museum/Art Gallery	44,000 sf	0.03 gpd/sf	1,320
Office	1,892,248 sf	0.12 gpd/sf	227,070
Restaurant[3]	102,305 sf	300 gpd/1,000 sf	30,794
Fitness Club	45,427 sf	650 gpd/1,000 sf	81,528
Retail	1,711,375 sf	0.025 gpd/sf	42,784
Schools (day care)[4]	296 stu/child	9 gpd/student	2,664
Studio Space	3,295,372 sf	0.05 gpd/sf	222,692
Warehouse	35,231 sf	30 gpd/1,000 sf	1,057
Total Related Projects Water Demand:			**2,455,207**
Net Project Water Demand:			*124,984*[5]
Total Cumulative:			**2,580,191**

NOTES: gpd = gallons per day; du = dwelling units; sf =square feet; stu = student.
Uses not listed are estimated by the closest type of use available in the table.

1 Based on LASAN sewer generation rates (Appendix G-6).
2 Includes condominiums and live/work residential units. Consumption rate was based on two bedrooms per unit as a conservative estimate.
3 Table II-2, Related Projects, defines restaurant space in gross square feet, not number of seats. The LASAN sewer generation rates table only provides sewage rates in square feet for Take Out Restaurants.
4 Based on Title 22 of the California Administrative Code and Title 5 of the Education Code, the minimum indoor space per child is 35 square feet.
5 Converted from 140 AFY.

In terms of the City's overall water supply condition, the water demands for projects that are consistent with the regional growth projections contained in the City's General Plan have been considered in the planned growth of the water system. For projects that are not consistent with the General Plan or that meet the requirements established in Sections 10910–10915 of the State Water Code State of California (SB 610 and SB 221), a WSA report demonstrating sufficient water availability would be required on a project-by-project basis. As previously discussed, the LADWP 2015 UWMP forecasts adequate water supplies to meet all projected water demands in the City through 2040. As discussed within the WSA (Appendix G-1), the collaboration between the LADWP and

MWD ensures that the City's anticipated water demands are incorporated into the development of MWD's long-term IWRP. This plan directs a continuous regional effort to develop regional water resources involving all MWD member agencies, including the City. Successful implementation of WMD's IWRP has resulted in reliable supplemental water supplies for the City from MWD.

In addition, all related projects would include water conservation measures, similar to Project Design Features **PDF-HYD-1** through **PDF-HYD-8** Related projects would comply with mandatory water efficiency and conservation CALGreen standards, which establish minimum baselines that must be met for a building to be approved. Related projects would also be subject to water conservation measures established by LADWP. LADWP continues to develop cost-effective programs to achieve its multiple water conservation goals of water demand reduction, customer service, and environmental responsibility. As detailed above, LADWP conservation measures fall under six categories: awareness/support, residential, commercial/industrial/institutional, landscape, system maintenance measures, and conservation pricing structure.

Based on projected water availability from LADWP and MWD, as described above, LADWP would be able to supply the demands of the Project and future anticipated growth (i.e., the Related Projects). As a result, **the proposed Project's incremental effect upon the City's water supply would not be cumulatively considerable and cumulative water supply impacts would be less than significant.**

(2) Mitigation Measures

Cumulative impacts related water supplies and water infrastructure were determined to be less than significant. Therefore, no mitigation measures are required.

(3) Level of Significance after Mitigation

Cumulative impacts related water supplies and water infrastructure 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.