IV. Environmental Impact Analysis

N.2. Utilities and Service Systems – Water Supply

1. Introduction

This section of the Draft EIR evaluates the impacts of the Project on domestic water infrastructure and water supply. This section quantifies the Project's water demand and evaluates the ability of the local municipal water infrastructure and water supply to meet this demand. The Project's consistency with relevant plans and regulations regarding the provision of water is also discussed. The focus of this section is on water consumption for domestic use. For further discussion of water availability for firefighting (e.g., fire flow), see Section IV.K.1, *Public Services – Fire Protection*, of this Draft EIR.

The data and conclusions regarding water infrastructure in this section are based on the Water Utility Infrastructure Technical Report (Water Technical Report) prepared by KPFF Consulting Engineers and provided in Appendix O-2 of this Draft EIR.[1] The data and conclusions in this section regarding the availability of water supply to serve the Project are based on a Water Supply Assessment (WSA) prepared for the Project by the Los Angeles Department of Water and Power (LADWP) and provided in Appendix O-3.[2]

2. Environmental Setting

a) Regulatory Framework

(1) State

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

The California Urban Water Management Planning Act (California Water Code [CWC] Division 6, Part 2.6, Sections 10610–10656) 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, such as the City, that serve more than 3,000 customers or provide more than 3,000 acre-feet per year (afy), to develop Urban Water

[1] KPFF Consulting Engineers, *Utility Infrastructure Technical Report: Water* (*Water Technical Report*), December 4, 2018.

[2] Los Angeles Department of Water and Power (LADWP), *Water Supply Assessment* (*WSA*), April 2018.

Management Plans (UWMPs) every five years to identify short-term and long-term demand management measures to meet growing water demands during normal, dry, and multiple-dry years.

A number of recent requirements regarding preparation pf water management plans have been added to the Urban Water Management Planning Act. These additional requirements include: (1) a narrative description of water demand measures implemented over the past five years and future measures planning to meet 20 percent demand reduction targets by 2020; (ii) a standard methodology of calculating system water loss; (iii) a voluntary reporting of passive conservation savings, energy intensity, and climate change; and, (iv) an analysis of water features that are artificially supplied with water.

(b) Senate Bill 610, Senate Bill 221, and Senate Bill 7

Two State laws addressing the assessment of water supply necessary to serve projects, Senate Bill (SB) 610 and SB 221, became effective on January 1, 2002. SB 610, codified in CWC Section 10910 et seq., describes requirements for WSAs applicable to 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, which meet specific size criteria, the water supplier must prepare a WSA that determines whether the water supplier has sufficient water resources to serve the projected water demand associated with a proposed project, providing specific guidance regarding how future supplies are to be calculated where an applicable UWMP has been prepared. Specifically, a WSA shall identify existing water supply entitlements, water rights, or water service contracts held by the public water system, and prior years' 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; or
- Projects that would demand an amount of water equivalent to or greater than the amount of water required by a 500-dwelling unit project.

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 five years; and (4) a discussion of the sufficiency of the groundwater that is projected to be pumped by the supplier.

In contrast to SB 610 WSAs, which are prepared at the beginning of the planning process for qualifying projects, SB 221 requires a Water Supply Verification (WSV) for large subdivision projects at the end of the planning process. Under SB 221, a water supplier must prepare and adopt a WSV indicating sufficient water supply is available to serve a proposed subdivision, or the local agency shall make a specified finding that sufficient water supplies are or will be available prior to completion of a project as part of the conditions for the approval of a final subdivision map. SB 221 specifically applies to residential subdivisions of 500 units or more. In addition, California Government Code Section 66473.7(i) exempts "[…] any residential project proposed for a site that is within an urbanized area and has been previously developed for urban uses; or where the immediate contiguous properties surrounding the residential project site are, or previously have been, developed for urban uses; or housing projects that are exclusively for very low and low-income households." SB 221 is codified in California Government Code Sections 11010, 65867.5, 66455.3, and 66473.7.

SB 7, which was part of the Seventh Extraordinary Session of 2009 and referred to as SB X7-7, was enacted on November 10, 2009. SB 7 mandates 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.[3] As such, each updated UWMP must 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.

(c) Senate Bill X7-7 – Water Conservation Act

SB X7-7 (Water Conservation Act of 2009), codified in California Water Code Section 10608, requires all water suppliers to increase water use efficiency. Enacted in 2009, this legislation sets an overall goal of reducing per capita urban water use, compared to 2009 use, by 20 percent by December 31, 2020. The State of California was required to make

[3] California State Water Resources Control Board (SWRCB), *20 x 2020 Water Conservation Plan*, February 2010.

incremental progress towards this goal by reducing per capita water use by at least 10 percent on or before December 31, 2015. Monthly statewide potable water savings reached 25.1 percent in February 2017 as compared to that in February 2013.[4] Cumulative statewide savings from June 2015 through February 2017 were estimated at 22.5 percent.[5] Following a multi-year drought and improvements to hydrologic conditions, statewide potable water savings reached 14.7 percent in August 2017 as compared to August 2013 potable water production.[6]

(d) Sustainable Groundwater Management Act of 2014

The Sustainable Groundwater Management Act of 2014[7,8,] passed in September 2014 is a comprehensive three-bill package that provides a framework for the sustainable management of groundwater supplies by local authorities. The Sustainable Groundwater Management Act 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 Sustainable Groundwater Management Act provides 20 years for groundwater sustainability agencies to implement plans and achieve long-term groundwater sustainability an protect existing surface water and groundwater rights. The Sustainable Groundwater Management Act 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 within 20 years of implementing their sustainability plans. For the basins that are critically over-drafted the timeline is 2040. For the remaining high and medium priority basins, the deadline is 2042.

(e) California Code of Regulations

(i) Title 20

Title 20, Sections 1605.1(h) and 1605.1(i) of the California Code of Regulations (CCR) establish efficiency standards (i.e., maximum flow rates) for all new federally-regulated plumbing fittings and fixtures, including such fixtures as showerheads, lavatory faucets, and water closets. Amongst the standards, the maximum flow rate for showerheads and

4 State Water Resources Control Board, *Fact Sheet, February 2017 Statewide Conservation Data*, updated April 4, 2017.

5 State Water Resources Control Board, Media Release, "Statewide Water Savings Exceed 25 Percent in February; Conservation to Remain a California Way of Life," April 4, 2017.

6 State Water Resources Control Board, *Fact Sheet, August 2017 Statewide Conservation Data*, updated October 3, 2017.

7 *Sustainable Groundwater Management Act* [and Related Statutory Provisions from SB 1168 (Pavley) AB 1739 (Dickinson) and SB 1319 (Pavley) as Chaptered], 2015 Amendments effective January 2016.

8 California Department of Water Resources, SGMA Groundwater Management, www.water.ca.gov/Programs/Groundwater-Management/SGMA-Groundwater-Management. Accessed March 21, 2021.

lavatory faucets are 2.5 gallons per minute (gpm) at 80 pounds per square inch (psi) and 2.2 gpm at 60 psi, respectively. The standard for kitchen faucets is 2.2 gpm at 60 psi. The standard for water closets 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.

(ii) Title 24, Part 11

Part 11 of Title 24, the title that regulates the design and construction of buildings, establishes the California Green Building Standards (CALGreen) Code. The purpose of CALGreen Code 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. The CALGreen Code includes both mandatory measures and voluntary measures. The mandatory measures establish minimum baselines that must be met in order for a building to be approved. The voluntary measures can be adopted by local jurisdictions for greater efficiency.

(iii) California Plumbing Code

Title 24 Part 5 of the California Code of Regulations (CCR) established 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, has been published by the California Building Standards Commission and went into effect on January 1, 2020.

(f) State of Drought Emergency Declaration and Executive Orders

In response to California's drought conditions, on January 17, 2014, Governor Jerry Brown declared a State of Drought Emergency (Proclamation of a State of Emergency) and directed State officials to take necessary actions to reduce the impacts of the ongoing drought conditions that had been occurring in California since approximately 2009. The proclamation lists numerous actions, including calling upon local Urban Water Suppliers and municipalities to implement their local water shortage contingency plans immediately in order to avoid or forestall outright restrictions that could become necessary later in the drought season. It also directs them to update their legally required urban and agricultural water management plans to correspond with State water conservation measures to help plan for extended drought conditions.[9] In April 2014, Governor Brown issued a

[9] State of California, Office of Governor Edmund G. Brown, Jr., Governor Brown Declares Drought State of Emergency, January 17, 2014, http://gov.ca.gov/news.php?id=18368. Accessed October 14, 2020.

Proclamation of a Continued State of Emergency throughout the State in response to the ongoing drought.

On April 1, 2015, Governor Brown renewed his emergency declaration and issued Executive Order B-29-15, which imposed a mandatory 25-percent Statewide water reduction on potable water use by Urban Water Suppliers through February 28, 2016, as compared to the designated base year of 2013. Executive Order B-29-15 sought to prioritize water infrastructure projects, incentivize water efficiencies, and streamline permitting and approval processes for water transfers and emergency drinking water projects. Executive Order B-29-15 further directed agencies to adopt emergency regulations to improve the efficiency of water appliances.

In November 2015, Governor Brown issued Executive Order B-36-15, which called for additional actions to build on the State's response to record dry conditions and assist recovery efforts from devastating wildfires. These included extension of previous executive orders, prioritization of projects that enhance water conservation, support for the extension of water restrictions, and support for projects that remediate wildfire damage and restore power plant operation. On May 9, 2016, Governor Brown issued Executive Order B-37-16 to continue water use restrictions from Executive Order B-29-15 as drought conditions continued to persist. While as of 2018 the severity of the drought has lessened in some parts of California after winter rains and snow, the drought is not currently over. The Executive Order called for long-term improvements to local drought preparation across the State, and directed the California State Water Resources Control Board (SWRCB) to develop proposed emergency water restrictions for 2017 if the drought persisted. The Executive Order is intended to achieve the following: use water more wisely, eliminate water waste, strengthen local drought resilience, and improve agricultural water use efficiency and drought planning.[10]

On May 18, 2016, SWRCB adopted a revised emergency water conservation regulation, effective June 2016 through Spring 2017. The regulation rescinded numeric reduction targets for Urban Water Suppliers, instead requiring locally developed conservation standards based upon each agency's specific circumstances.[11] On April 26, 2017, the SWRCB repealed part of the emergency regulation pertaining to water supply stress test requirements and remaining mandatory conservation standards for Urban Water Suppliers.[12] The repeal was in response to Executive Order B-40-17, discussed below.[13] The regulatory requirements resulting from these Executive Orders were codified in Article 22.5, Drought Emergency Water Conservation of the California Code of Regulations.

[10] State of California, Office of Governor Edmund G. Brown, Jr., *Governor Brown Issues Order to Continue Water Savings as Drought Persists*, May 9, 2016.

[11] State of California Office of Administrative Law, *Notice of Approval of Emergency Regulatory Action, State Water Resources Control Board, Title 23*, May 31, 2016.

[12] SWRCB, Emergency Conservation Regulation, 2017, https://www.waterboards.ca.gov/water_issues/programs/conservation_portal/emergency_regulation.html. Accessed October 12, 2020.

[13] SWRCB, Resolution No. 2017-0024, adopted on April 26, 2017.

On April 7, 2017, Governor Brown issued Executive Order B-40-17 to end the drought state of emergency in all California counties, except Fresno, Kings, Tulare, and Tuolumne, where emergency drinking water projects continue to offset reduced groundwater supplies.[14] The Executive Order also rescinded Governor Brown's January 2014 and April 2014 drought-related emergency proclamations and four drought-related Executive Orders, including B-29-15 and B-36-15. Cities and water districts throughout the State are required to continue reporting their water use each month. The order continued the ban on wasteful practices, including hosing off sidewalks and running sprinklers when it rains.

(g) California Water Plan

Required by CWC 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.[15] 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 California Water Plan, updated every five 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 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 June 2019, the California Department of Water Resources released up-to-date climate change information, including hydrologic impacts and projections at the statewide and regional levels and adaptation strategies, in the California Water Plan Update 2018 (California Water Plan).[16]

(h) California Water Action Plan

The California Water Action Plan was released in January 2014 and was updated in 2016 under Governor Brown's administration.[17] 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

[14] LADWP, *WSA*, April 2018.
[15] California Department of Water Resources, *California Water Plan*, https://water.ca.gov/Programs/California-Water-Plan. Accessed December 24, 2018.
[16] California Department of Water Resources, *California Water Plan Update 2018*, June 2019, p. 2-13.
[17] California Natural Resources Agency, *California Water Action Plan 2016 Update*, January 14, 2016.

further increasing the severity of these risks.[18] Ten actions are listed in the California Water Action Plan to address the pressing water issues that California faces while laying groundwork for a sustainable water future:[19]

1. Make conservation a California way of life.
2. Increase regional self-reliance and integrated water management across all levels of government.
3. Achieve the co-equal goals for the Delta.
4. Protect and restore important ecosystems.
5. Manage and prepare for dry periods.
6. Expand water storage capacity and improve groundwater management.
7. Provide safe water for all communities.
8. Increase flood protection.
9. Increase operational and regulatory efficiency.
10. Identify sustainable and integrated financing opportunities.

(2) 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, the 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, including the City.

(a) Metropolitan Water District's 2015 Urban Water Management Plan

The Metropolitan Water District's (MWD) 2015 Regional UWMP (2015 RUWMP) addresses the future of MWD's water supplies and demand through the year 2040.[20] Evaluations are prepared for average year conditions, single dry-year conditions, and multiple dry-year conditions. The analysis for multiple-dry year conditions (i.e., under the most challenging weather conditions such as drought and service interruptions caused by natural disasters) is presented in Table 2-4 of the 2015 RUWMP.[21] The analysis in the 2015 RUWMP concluded that reliable water resources would be continuously available

[18] California Natural Resources Agency, *California Water Action Plan 2016 Update*, January 14, 2016, pp. 2 and 3.
[19] California Natural Resources Agency, *California Water Action Plan 2016 Update*, January 14, 2016, p. 5.
[20] Metropolitan Water District of Southern California (MWD), *2015 Regional Urban Water Management Plan* (*RUWMP*), June 2016.
[21] MWD, *2015 RUWMP*, June 2016, p. 2-15.

to meet demand through 2040.[22] In the 2015 RUWMP, the projected 2040 demand for water is 2,201,000 afy, whereas the expected and projected 2040 supply is 2,941,000 afy based on current programs, and an additional 398,000 afy is expected to become available through programs under development for a potential surplus in 2040 of 1,138,000 afy.[23]

MWD has established comprehensive plans for stages of actions that would be undertaken 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 RUWMP, MWD will also continue investments in water use efficiency measures to help the region achieve the SB X7-7 goal of 20 percent per person potable water use reduction by 2020.[24]

(b) MWD's 2015 Integrated Resources Plan

The MWD prepares an Integrated Water Resources Plan (IRP) to provide a water management framework that includes plans and programs for meeting future water needs. It addresses issues that can affect future water supply, such as water quality, climate change, and regulatory and operational changes. The most recent IRP (2015 IRP) was adopted in January 2016.[25] It establishes a water supply reliability mission of providing its service area with an adequate and reliable supply of high-quality water to meet present and future needs in an environmentally and economically responsible way. Among other topics, the 2015 IRP discusses water conservation, local and imported water supplies, storage and transfers, water demand, and adaptation to drought conditions. Specifically, the 2015 IRP includes the following strategies to meet future water demand:[26]

- Stabilizing and maintaining imported supplies;

22 MWD, *2015 RUWMP*, June 2016, p. 2-15.
23 MWD, *2015 RUWMP*, June 2016, p. 2-15.
24 MWD, *2015 RUWMP*, June 2016, p. ES-5.
25 MWD, *Integrated Water Resources Plan 2015 Update* (*2015 IRP*), Report No. 1518, January 2016.
26 MWD, *2015 IRP*, January 2016, p. 6.5.

- Meeting future growth through increase water conservation and the development of new – and protection of existing – local supplies;
- Pursuing a comprehensive transfers and exchanges strategy;
- Building storage in wet and normal years to manage risk and drought; and
- Preparing for climate change with Future Supply Actions – recycled water, seawater desalination, stormwater capture, and groundwater cleanup.

The 2015 IRP reliability targets identify developments in imported and local water supply, and in water conservation that, if successful, would provide a future without water shortages and mandatory restrictions under planned conditions. For imported supplies, MWD would make investments to maximize Colorado River Aqueduct deliveries in dry years. MWD would make ecologically sound infrastructure investments to the SWP so that the water system can capture sufficient supplies to help meet average year demands and to refill the MWD storage network in above-average and wet years.

Lowering regional residential per capita demand by 20 percent by the year 2020 (compared to a baseline established in 2009 State legislation), reducing water use by landscaping, and advancing additional local supplies are among the planned actions to keep supplies and demands in balance. Table ES-1, 2015 IRP Update Total Level of Average-Year Supply Targeted (Acre-Feet), of the 2015 IRP, shows the supply reliability and conservation targets. As presented in Table ES-1, the total supply reliability target for each five-year increase between 2016 and 2040 would exceed the retail demand after conservation. In 2040, retail demand after conservation is estimated to be 4,273,000 af and the total supply reliability target is approximately 4,539,000 af, representing an excess of 266,000 af.[27]

(c) MWD's Water Surplus and Drought Management Plan

In 1999, MWD incorporated the water storage 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. 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 IRP. 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, 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 part

[27] MWD, *2015 IRP*, January 2016, p. VIII.

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's 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, in February 2008, MWD adopted a water supply plan called the Water Supply Allocation Plan, which has since been implemented three times, most recently in April 2015. 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 takes into account 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 consecutive months from July of a given year through the following June.

(3) Local

(a) Los Angeles Department of Water and Power's 2015 Urban Water Management Plan

In accordance with the California Urban Water Management Planning Act, LADWP adopted the 2015 UWMP on June 7, 2016, which builds upon the goals and progress made in the 2010 UWMP and serves as the City's master plan for reliable water supply and resource management.[28] The UWMP details LADWP's efforts to promote the efficient use and management of its water resources. LADWP's UWMP used a service area-wide method in developing its water demand projections. This methodology 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 to the year 2040. The driving factors for this growth are demographics, weather, and conservation. LADWP used anticipated growth in the various customer class sectors as provided by MWD who received projected demographic data from SCAG.

LADWP's 2015 UWMP addresses water demand drivers and forecasts through 2040. The 2015 UWMP includes a new water demand forecast called a modified unit use approach for the major categories of demand, namely, demographics, socioeconomics,

[28] LADWP, *2015 Urban Water Management Plan* (*2015 UWMP*), 2016, https://www.ladwp.com/cs/idcplg?IdcService=GET_FILE&dDocName=QOELLADWP005416&RevisionSelectionMethod=LatestReleased. Accessed October 12, 2020.

conservation, weather, and non-revenue water. This forecast will allow the City to better understand water-use trends and develop effective conservation programs.

LADWP's 2015 UWMP also defines an evolving water supply portfolio that includes significant increases in both water conservation and local water supplies. It addresses confidence in the water supply by analyzing the uncertainties associated with climate change and integrating this analysis into water supply plans. Finally, it reinforces the need to address the water/energy nexus and continuing efforts to reduce carbon footprint. With its current water supplies, planned future water conservation, and planned future water supplies, LADWP has available supplies to meet all demands under all three hydrologic scenarios (hot and dry; warm and wet; and average) through the 25-year planning period covered by the UWMP.

(b) L.A.'s Green New Deal (Sustainable City pLAn 2019)

In April 2019, Mayor Eric Garcetti released L.A.'s Green New Deal (Sustainable City pLAn 2019). Rather than an adopted plan, the Green New Deal is a mayoral initiative that consists of a program of actions designed to create sustainability-based performance targets through 2050 that advance economic, environmental, and equity objectives. [29] The Sustainable City pLAn 2019 is the first four-year update to the City's first Sustainable City pLAn that was released in April 2015.[30] 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.

Towards that end, the Green New Deal establishes a number of targets to be met in order to support the Green New Deal vision:[31]

- Source 70 percent of Los Angeles water locally (compared to a 15 percent baseline during the July 2013 to June 2014 period) and capture 150,000 afy of stormwater by 2035;
- Recycle 100 percent of all wastewater for beneficial reuse by 2035 (in contrast to a baseline value of 27 percent in fiscal year 2017-2018);
- Build at least 10 new multi-benefit stormwater capture projects by 2025 to improve local water quality and increase local water supply; 100 by 2035; and 200 by 2050;
- Reduce potable water use per capita by 22.5 percent by 2025; 25 percent by 2035; and maintain or reduce 2035 per capita water use through 2050; and
- Install or refurbish hydration stations at 200 sites, prioritizing municipally-owned building and public properties such as parks, by 2035.

[29] City of Los Angeles, *L.A.'s Green New Deal*, 2019.
[30] City of Los Angeles, *Sustainable City pLAn*, 2015.
[31] City of Los Angeles, *LA's Green New Deal*, 2019, pp. 46 to 49.

(c) 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.[32] The new plan builds upon the City's Water IRP, 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.[33] 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.

(d) City of Los Angeles General Plan Framework

The Citywide General Plan Framework Element (Framework Element) establishes the conceptual basis for the City's General Plan.[34] 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 utilities in the City, including wastewater collection and treatment. Goal 9C is to provide adequate water supply, storage facilities, and delivery system to serve the needs of existing and future water needs.[35]

The following General Plan goals, objectives, and policies relate to water supply:

> **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.

[32] City of Los Angeles, *One Water LA 2040 Plan*, Volume 1, Summary Report, April 2018.
[33] City of Los Angeles, Office of the Mayor, Executive Directive No. 5, Emergency Drought Response – Creating a Water Wise City, October 14, 2014.
[34] City of Los Angeles Department of City Planning, *City of Los Angeles General Plan*, Citywide General Plan Framework, 1995.
[35] City of Los Angeles Department of City Planning, *City of Los Angeles General Plan*, Citywide General Plan Framework Element, Chapter 9: Infrastructure and Public Services – Water Supply, 1995.

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.

(e) Central City North Community Plan

The Central City North Community Plan includes within its purpose statement the promotion of "… an arrangement of land use, streets, and services which will encourage and contribute to health, safety, welfare and convenience of the people who live and work in the community."[36] The Community Plan identifies aging infrastructure as an issue, but does not provide specific policies regarding the provision of infrastructure facilities for individual development projects, which are routinely evaluated on a project-by-project basis.

(f) Los Angeles Municipal Code

The City has adopted several ordinances to reduce the amount of water consumption in the City. These include measures pursuant to the City's green building efforts, encouragement of sustainable development and initiatives to address potential water shortages due to changing supply availability. The ordinances are discussed below.

- Ordinance Nos. 166,080, 181,288, 183,608, and 184,250—amending 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

[36] City of Los Angeles Department of City Planning, *Central City North Community Plan*, 2003.

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. 180,822—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.
- Ordinance No. 181,480—amended LAMC Chapter IX by adding Article 9 (Green Building Code) to the LAMC to incorporate various provisions of the California Green Building Standards Code. This ordinance added mandatory measures for newly constructed low-rise residential and non-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 Nos. 181,899 and 183,833—amended LAMC Chapter VI, Article 4.4, Section 64.72 regarding stormwater and urban runoff to include new requirements, including Low Impact Development (LID) requirements that promote water conservation.
- Ordinance No. 182,849—amended LAMC Chapter IX, Article 9 (Green Building Code) 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. 184,692—amended LAMC Chapter IX, Article 4 (Plumbing Code) by adopting by reference various sections of the California Plumbing Code. This ordinance also added requirements for plumbing fixtures and fixture fitting.
- Ordinance No. 184,248—amended LAMC Chapter IX, Article 4 (Plumbing Code) and Article 9 (Green Building Code) to establish citywide water efficiency standards and mandate a number of new fixture requirements and methods of construction for plumbing and irrigation systems.

The City of Los Angeles 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 (LAMC Chapter V, Article 7). LAMC Section 57.507.3.1 establishes fire water flow standards. Fire water flow requirements, as determined by the Los Angeles Fire Department (LAFD), 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 gallons per minute (gpm) in low-density residential areas to 12,000 gpm in high density commercial or industrial areas. A minimum residual water pressure of 20 pounds per square inch (psi) is to remain in the water system with the

required gpm flowing. As set forth in LAMC Section 57.507.3.1, Industrial and Commercial land uses (which the LAFD has classified the Project as) have a minimum required fire flow of 6,000 gpm to 9,000 gpm from four to six adjacent hydrants flowing simultaneously with a residual pressure of 20 psi unless otherwise determined by LAFD. 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-by-4-inch double fire hydrants or 4-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.

(g) Los Angeles Water Rate Ordinance

The City's Water Rate Ordinance was adopted in June 1995 and last amended by the City's Board of Water and Power Commissioners pursuant to Ordinance No. 184,130. Effective since April 15, 2016, the City's Water Rate Ordinance restructured water rate schedules for single-dwelling units, multi-dwelling units, commercial, industrial, government, and other land uses.[37] The new water rate structures would provide investments for reliable infrastructure, encourage conservation, expand local water supply projects, reduce reliance on imported purchased water, and meet regulatory mandates concerning drinking water quality.

b) Existing Conditions

(1) Water Infrastructure

Based on the Water Technical Report prepared for the Project, LADWP maintains the water infrastructure to the Project Site. Five water lines are located within the vicinity of the Project Site.[38] The first main is a 6-inch water line in Mesquit Street that spans from 6th Street at the north to 7th Street at the south. Prior to connecting to the main in 7th Street, the 6-inch line upsizes to an 8-inch line. The second main is a 6-inch water line in Jesse Street that spans from Mateo Street in the west to Mesquit Street on the east. There are two mains located along the Project Site's 7th Street property frontage. The northerly line is 16 inches and the southerly line is 24 inches. The last main is an 8-inch water line in Santa Fe Avenue that spans from Palmetto Street at the north to 7th Street at the south.

(2) Water Demand

The Project Site is currently developed with existing one- to four-story freezer cold storage, and dry storage and associated office space, loading docks, and seven surface parking spaces. The existing warehouses total approximately 205,393 square feet. According to the WSA prepared for the Project, the estimated existing water demand for the Project Site is approximately 58,526 gallons per day (gpd) or approximately 65.56 afy

[37] City of Los Angeles, Ordinance No. 184,130, adopted June 1995 and amended March 2016.
[38] KPFF Consulting Engineers, *Water Technical Report*, pp. 2 and 3.

(refer to Table IV.N.2-3 below for a detailed breakdown). The existing water demand is based on LADWP's billing data averaged over four years from 2013 to 2017.

(3) Water Supply

LADWP is responsible for providing water for the City and various parts of Culver City, South Pasadena, and West Hollywood. LADWP ensures that the delivered water quality meets applicable California health standards for drinking water. Water is supplied to the City from the following sources: Los Angeles Aqueducts (LAA), local groundwater, imported water from the MWD and recycled water. **Table IV.N.2-1**, *LADWP Water Supply*, summarizes LADWP water supplies drawn from these sources over the last 10 years. As is true of any entitlement or right to receive water from a water source, the actual amount of water drawn from or delivered by that source can be lower than the entitlement amount depending upon weather conditions, such as low snow pack or rain levels, that affect the source's water supplies, as well as other factors discussed below.

TABLE IV.N.2-1
LADWP WATER SUPPLY (IN ACRE-FEET)

Year	Los Angeles Aqueducts	Local Groundwater	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	391,325	11,307	2,080	**561,515**
2015	33,236	80,155	378,439	9,829	432	**500,432**
2016	95,566	72,503	314,301	9,095	-981	**492,447**

SOURCE: LADWP, WSA, p. 28.

As shown in Table IV.N.2-1, in 2016, LADWP had an available water supply of 492,447 afy consisting of the following:

- 19 percent from the Los Angeles Aqueducts
- 15 percent from local groundwater
- 64 percent from the MWD
- 2 percent from recycled water

Less than 1 percent was drawn from LADWP's reservoir system or provided via transfer. LADWP's available water supply is generally equivalent to the demand from year to year, as LADWP purchases additional water from MWD only on an as-needed basis. These water sources are described in further detail below.

(a) Los Angeles Aqueducts

Water from the Los Angeles Aqueducts comes primarily from streams and groundwater originating from snowmelt runoff from the eastern Sierra Nevada Mountains. In response to varying hydrologic conditions, water supplies from these sources can fluctuate yearly. The City holds water rights in the eastern Sierra Nevada where the Los Angeles Aqueducts water supplies originate. Pursuant to various legislative enactments, regulations, and written agreements between LADWP and the Great Basin Unified Air Pollution Control District (GBUAPCD), LADWP's ability to export Los Angeles Aqueducts water is impacted by water levels in Mono Lake and water commitments necessary to implement a dust mitigation program for Owens Lake. In recent years, the Los Angeles Aqueducts' deliveries of water to LADWP have been at less than historical annual levels.[39]

On November 14, 2014, the City and GBUAPCD announced an agreement that defined and limited the full extent of future dust mitigation for LADWP concerning Owens Lake. The agreement also allows LADWP to use water efficient and waterless dust mitigation measures. LADWP expects to save significant amounts of water in coming years with implementation of the Owens Lake Master Project and other water conservation projects that would then become available to LADWP as water supplies.[40]

Average deliveries of water from the Los Angeles Aqueducts system have totaled approximately 111,293 afy from between Fiscal Year (FY) 2011/12 and 2015/16. During this period, a record low snow pack for the Los Angeles Aqueducts watershed in the eastern Sierra Nevada, one of the primary water sources for the aqueducts, was recorded on April 1, 2015. The average annual Los Angeles Aqueducts delivery between 2015 and 2040, based on the 50-year average hydrology from FY 1961/62 to 2010/11, is expected to be approximately 278,000 afy and to gradually decline to 267,000 afy due to expected reductions in snowpack caused by climate change. However, with the anticipated completion of the Owens Lake Master Project by 2024, the projected Los Angeles Aqueducts delivery is expected to increase to 286,000 afy, offsetting most of the anticipated long-term losses due to climate change.[41]

To offset other potential losses, as discussed in the water reliability section of its 2015 UWMP, LADWP expects to have a reliable supply of up to 675,700 acre-feet of water in 2040.[42] As further discussed in the UWMP, LADWP expects to maintain a reliable water supply through conservation, increased recycled water use (including both non-potable and

39 LADWP, *WSA*, April 2018, p. 30.
40 LADWP, *WSA*, April 2018, p. 30.
41 LADWP, *WSA*, April 2018, p. 31.
42 LADWP, *2015 UWMP*, 2016, p. ES-23.

potable reuse), increasing City sources of water, and reducing purchases from the MWD.[43] Between 2015 and 2040, the City's local water supplies are planned to increase from 14 percent to 49 percent of total water supply usage in dry years, and to 47 percent in average years.[44] The City's imported supplies will decrease significantly from 86 percent to 51 percent of water supply use in dry years, and to 53 percent in average years.

(b) Groundwater

LADWP extracts groundwater from the San Fernando, Sylmar, and Central groundwater basins.[45] LADWP holds adjudicated extraction rights in each of the groundwater basins, meaning the City has been legally allocated quantified annual pumping and groundwater storage rights in the basins. The San Fernando and Sylmar Basins are subject to the judgment in *City of San Fernando vs. City of Los Angeles*, which requires that pumping be reported to the court-appointed Upper Los Angeles River Area (ULARA) Watermaster. The Central Basin is also subject to a court judgment that requires that pumping be reported to the Water Replacement District of Southern California, which acts as the administrative body of the court-appointed basin Watermaster.

The San Fernando Basin underlies approximately 112,000 acres of land in the ULARA. The majority of LADWP's groundwater is extracted from the San Fernando Basin. The City has an annual pumping right of 87,000 acre-feet in the San Fernando Basin and has accumulated 537,622 afy of stored water credits in the basin as of October 2014.[46] The Sylmar Basin, located in the northern part of the ULARA, overlies 5,600 acres of land. LADWP has an annual entitlement of 3,570 afy from the Sylmar Basin, which will increase to 4,170 afy between FY 2015-16 and FY 2038-39 to utilize stored groundwater rights held by the City.[47] The City also holds a right to 17,236 afy from the Central Basin, and holds additional storage rights in that basin.[48]

The supplies of groundwater in recent years as well as projections through 2040 are shown in **Table IV.N.2-2**, *Local Groundwater Basin Supply*. For the July 2014–June 2015 period, LADWP extracted 80,097 acre-feet and 6,948 acre-feet from the San Fernando and Central Basins, respectively; no water was extracted from the Sylmar Basin. LADWP plans to continue extractions 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 elevation. Future projections for groundwater extraction at 5-year intervals are shown in Table IV.N.2-2. As indicated, the expected extraction for the San Fernando, Sylmar and Central Basins in the years leading up to and inclusive of 2040 is 92,000 afy, 3,570 afy, and 18,500 afy, respectively.

43 LADWP, *2015 UWMP*, 2016, p. ES-1.
44 LADWP, *2015 UWMP*, 2016, p. ES-20.
45 Currently, LADWP does not exercise its pumping rights at the West Coast Basin due to localized water quality issues.
46 LADWP, *WSA*, April 2018, p. 31.
47 LADWP, *WSA*, April 2018, p. 31.
48 LADWP, *WSA*, April 2018, p. 32.

TABLE IV.N.2-2
LOCAL GROUNDWATER BASIN SUPPLY (IN ACRE-FEET)

Year	San Fernando	Sylmar	Central
Recent Years			
2010–2011	44,029	225	5,099
2011–2012	50,244	1,330	9,486
2012–2013	50,550	1,952	6,310
2013–2014	68,784	891	9,727
2014–2015	80,097	0	6,948
Future Projections			
2019–2020	90,800	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(S): LADWP, WSA, p. 32.

(c) Metropolitan Water District of Southern California

LADWP purchases a large amount of its water supply from MWD. MWD is comprised of 26 member agencies, which include the City through LADWP. MWD is the largest imported wholesale water service provider for domestic and municipal uses in Southern California. MWD's primary water supply resources are the Colorado River and the SWP. All of MWD's 26-member agencies have preferential rights to purchase water from MWD. As of June 30, 2016, LADWP has a preferential right to purchase 19.94 percent of MWD's total annual water supply. MWD prepares to meet its member agencies' demand for water through assessments of future supply and demand, which are presented in the MWD's RUWMP, which are reports that by statute must be prepared every five years. As previously stated, the analysis in the 2015 RUWMP concluded that continuously reliable water sources would be available to meet demand through 2040. In the 2015 RUWMP, the projected 2040 demand water is 2,201,000 afy, whereas the expected and projected 2040 supply is 2,941,000 afy based on current programs, and an additional 398,000 afy is expected to become available through programs under development for a potential surplus in 2040 of 1,138,000 afy.[49]

[49] MWD, *2015 RUWMP*, June 2016, p. 2-15.

3. Project Impacts

a) Thresholds of Significance

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

Threshold (a): Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunication facilities, the construction of which would cause significant environmental effects;[50] or

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

For this analysis, the Appendix G Thresholds are relied upon. The analysis utilizes factors and considerations identified in the City's 2006 L.A. CEQA Thresholds Guide, as appropriate, to assist in answering the Appendix G Threshold questions. The factors to evaluate 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;
- 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 project completion; and
- The degree to which scheduled water infrastructure or project design features would reduce or offset service impacts.

b) Methodology

(1) Water Infrastructure

The analysis of impacts to water infrastructure is based on the analysis in the Water Technical Report prepared for the Project. The analysis: (1) identifies the domestic water mains that would serve the Project; (2) identifies the capacity and water pressures in these mains based on flow tests (e.g., Service Advisory Reports [SARs]) performed by LADWP (included as Exhibit 3 of the Water Technical Report); and (3) determines whether the existing water mains and hydrants have the capacity to serve the proposed Project based on the requirements established for the Project by LADWP in the SARs

[50] Electrical and natural gas are addressed in Section IV.O, *Energy Conservation and Infrastructure*, of this Draft EIR. Stormwater drainage is addressed in more detail in Section IV.G, *Hydrology and Water Quality*, of this Draft EIR. Telecommunications is addressed in more detail in Chapter VI, *Other CEQA Considerations*, of this Draft EIR.

and LAMC fire flow requirements, which determine hydrant requirements. LADWP performed a flow test to determine if available water conveyance infrastructure (e.g., pipes, hydrants, and mains) exists to support future development. LADWP's approach consists of data ranging from available static pressure, which is the amount of pressure available at the source before applying the Project's demand; residual pressure, which is the amount of pressure exerted on the pipe when water is flowing through it; and the flow rate (gpm) through the hydrants at 20 psi.

(2) Water Supply

Per Section 10912 of the CWC, a WSA is required for the Project. The Project proposes a mix of uses totaling up to 1,792,103 square feet. The findings of the WSA prepared by LADWP for the Project are summarized in this section, and the complete WSA is provided in Appendix O-3 of this Draft EIR. The analysis of Project demand for and availability of domestic water supplies is based on the findings of the WSA. The WSA determines the Project's net domestic operational water demand based on the City's Bureau of Sanitation (LASAN) sewerage generation Rates as applied to the proposed Project uses, less water consumption by existing uses on the Project Site, code-required water conservation measures, and any additional conservation commitments made by the Applicant. The WSA then determines the availability of existing and future water supplies for the Project according to the projections contained within the LADWP's 2015 UWMP, in accordance with SB 610.

c) Project Design Features

Based on the commitments made by the Applicant to the LADWP (included as Appendix B to the WSA, itself provided in Appendix O-3 of this Draft EIR), the following Project Design Feature (PDF) would be implemented by the Project to conserve water and reduce the domestic water demand:

> **PDF WS-1: Water Conservation Features:** The Project will provide the following specific water efficiency features:
>
> - High Efficiency Toilets with a flush volume of 1.06 gallons of water per flush, or less;
> - Domestic water heating system located in close proximity to point(s) of use, where feasible;
> - Leak detection system for swimming pools and Jacuzzis;
> - Drip/subsurface irrigation (Micro-Irrigation);
> - Proper hydro-zoning/zoned irrigation (group plants with similar water requirements together);
> - Drought-tolerant plants – 62 percent of total landscaping
> - Water conserving turf – 3 percent of total landscaping with a 0.6 Plant Factor being committed;

- Automated pool chemical delivery system; and
- Installation of thermal pool covers on all outdoor pools/spas.

d) Analysis of Project Impacts

Threshold a) Would the Project require or result in the construction of new water facilities or the expansion of existing facilities, the construction of which would cause significant environmental effects?

(1) Impact Analysis

(a) Construction

Project construction activities would occur incrementally over throughout the duration of construction, which could be completed by 2026, the earliest possible buildout year, in a single phase or by 2040 if constructed in separate phases, and would be temporary in nature. Consequently, construction would result in short-term and intermittent demand for water during demolition, excavation, grading, and construction activities on-site, including but not limited to use in dust control, cleaning of equipment, excavation/export, removal and re-compaction, and other related activities.

Based on a review of construction projects of similar size and duration, a conservative estimate of construction water use ranges from 2,000 to 6,000 gpd.[51] Considering temporary construction water use would be substantially less than the existing water consumption at the Project Site (estimated to be approximately 58,526 gpd), it is anticipated that the existing water infrastructure would meet the limited and temporary water demand necessary for construction of the Project.

In order to accommodate the Project's operational water use, the Project would be required to upgrade the water mains serving the Project to ensure adequate water flow, pressure, and capacity are available for the Project. Approximately 470 linear feet of the existing 6-inch main in Mesquit Street would be upgraded to a 12-inch line. Approximately 330 linear feet of the existing 6-inch line in Jesse Street would be upgraded to a 16-inch line. Approximately 580 linear feet of the existing 8-inch line in Santa Fe Avenue would be upgraded to a 16-inch line. The Project proposes to connect to the proposed 12-inch main in Mesquit Street and the existing 16-inch main in 7th Street with laterals that are adequately sized to accommodate fire demand and domestic demand. In addition, the services will include backflows and be metered separately per City requirements. The existing water main in Mesquit Street is directly connected to a 16-inch main in 7th Street. As part of the Project, this connection will be removed as the southerly 300 feet of Mesquit Street is proposed for vacation and construction of underground parking. The Project will

[51] KPFF Consulting Engineers, *Utility Infrastructure Technical Report: Water*, p. 3.

also require construction of new, on-site water distribution lines to serve the new buildings.[52]

The design and installation of new service connections are required to meet applicable City standards. Construction impacts associated with the installation of water distribution lines below surface would primarily involve trenching in order to place the water distribution lines below grade and reconnect existing domestic and fire water services for the affected surrounding properties and would be limited to on-site and minor off-site (street right-of-way and sidewalk) construction activities. 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.L, *Transportation*, in accordance with Project Design Feature TRAF-PDF-1, the Project would implement a Construction Management Plan to reduce temporary pedestrian and traffic impacts during construction, including construction of water distribution lines and connections to the public main.

Therefore, existing water facilities would meet the limited and temporary water demand necessary for construction of the Project. Project construction would not require or result in the construction of new water facilities or expansion of existing facilities, construction of new facilities. Construction impacts on water infrastructure would be less than significant.

(b) Operation

Water service to the Project Site would continue to be provided by LADWP, as under existing conditions. When analyzing the Project for infrastructure capacity, the projected demands for both fire suppression and domestic water are considered. Although domestic water demand is the Project's main contributor to water consumption, fire flow demands have a much greater instantaneous impact on infrastructure and are, therefore, the primary means for analyzing infrastructure capacity. Nonetheless, both fire suppression and domestic water flow analyses have been completed by LADWP for the Project.

In regard to fire hydrant flow, LADWP performed a hydraulic analysis of their water system to determine if adequate fire flow is available to the fire hydrants surrounding the Project Site. LADWP's approach consists of analyzing their water system model in the vicinity of the Project Site. As stated in the Water Technical Report, based on fire flow standards set forth in in Section 57.507.3 of the LAMC and consultation with the LAFD, the proposed Project would have a required fire flow of 9,000 gpm from four to six hydrants flowing simultaneously with a residual water pressure of 20 psi.[53] An Information of Fire Flow Availability Request (IFFAR) from LADWP, provided in Exhibit 2 of the Water Technical Report, shows the use of an existing fifth hydrant located at the southeast intersection of Santa Fe Avenue and 7th Street would be required in addition to the existing four nearby

[52] KPFF Consulting Engineers, *Utility Infrastructure Technical Report: Water*, p. 7.
[53] KPFF Consulting Engineers, *Utility Infrastructure Technical Report: Water*, p. 6.

hydrants originally considered in order to obtain 9,000 gpm from these five hydrants flowing simultaneously. The Project would also be required to upgrade the infrastructure and install 1,380 feet of 16-inch and 12-inch pipe on S. Santa Fe Avenue, Jesse Street, and Mesquit Street to have available flow to serve the Project Site. With the inclusion of these system upgrades, the hydrants would have adequate fire flow available to meet the flow required for the Project.

Following installation of the new service connections, as described above, to accommodate the additional water and fire flow requirements, LADWP determined that the water distribution infrastructure would have sufficient capacity to serve the Project Site. While the Project would require these new service connections, such work would be subject to LADWP's approval of final design and the recommendations of the Project's civil engineers. All infrastructure improvements would be undertaken with the approval and oversight of LADWP and other applicable parties as required.

Therefore, while Project operation would require the construction of new water facilities or expansion of existing facilities, with regulatory compliance and coordination with LADWP, the construction of the new water facilities or expansion of existing facilities would not cause significant environmental effects. Operational impacts on water infrastructure would be less than significant.

(c) Project with the Deck Concept

As stated in Chapter II, *Project Description*, the Applicant seeks to construct a 132,000-square foot Deck that extends over a portion of the off-site Railway Properties east of the Project Site. While construction of the Project with the Deck Concept would include the additional Deck, construction and demolition activities would be the same as under the Project. Similar to the Project, during construction of the Project with the Deck Concept, water use would be substantially less than the existing water consumption at the Project Site. Therefore, it is anticipated that the existing water infrastructure would meet the limited and temporary water demand necessary for construction of the Project.

The Project with the Deck Concept would, similar to the Project, be required to upgrade the water mains serving the Project with the Deck Concept to ensure adequate water flow, pressure, and capacity are available. Construction of the Project with the Deck Concept would include the same necessary on- and off-site improvements and connections as needed under the Project. **Therefore, while Project with the Deck Concept construction would not require or result in the construction of new water facilities or expansion of existing facilities, construction of new facilities, the construction of which would not cause significant environmental effects, would be required to accommodate water usage during operation. Construction impacts on water infrastructure would be less than significant.**

Operation of the Project with the Deck Concept would not include additional uses that are not already analyzed under the Project. Additional event programming, as compared to the Project, proposed under the Project with the Deck Concept would be temporary and

would not occur every day and throughout the day. LADWP determined that the water distribution infrastructure would have sufficient capacity to serve the Project Site following installation of the new service connections. **Therefore, while Project with the Deck Concept operation would require the construction of new water facilities or expansion of existing facilities, with regulatory compliance and coordination with LADWP, the construction of the new water facilities or expansion of existing facilities would not cause significant environmental effects. Operational impacts on water infrastructure would be less than significant.**

(2) Mitigation Measures

Impacts on the relocation or construction of new or expanded water supply facilities were determined to be less than significant without mitigation; therefore, no mitigation measures are required.

(3) Level of Significance After Mitigation

Impacts 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 service the Project from existing entitlements and resources, or are new expanded entitlements needed?

(1) Impact Analysis

(a) Construction

As stated under Threshold a), water would be required for Project construction activities, such as soil watering (fugitive dust control), clean up, excavation/export, be and re-compaction, and other related activities. Construction activities would be intermittent, with demand for water consumption variable but generally short-term and temporary in nature. The activities requiring water would not create substantial water demand. As stated above and in the Water Technical Report, based on a review of construction projects of similar size and duration, a conservative estimate of construction water demand would be approximately 2,000 to 6,000 gpd.[54,55] Construction water use of approximately 6,000 gpd would be substantially less than the existing water consumption at the Project Site of 58,526 gpd, which would be reduced or eliminated during the construction period. Considering temporary construction water use would be substantially less than the existing water consumption at the Project Site, there would be sufficient water supplies available to serve the Project Site during construction.

[54] KPFF Consulting Engineers, *Utility Infrastructure Technical Report: Water*, p. 3.
[55] The high end of this range is used here to provide a conservative analysis.

Furthermore, the approved LADWP WSA determined that adequate water supplies exist to meet the Project's projected water demand between 2015 and 2040, in addition to the existing and planned future demands on LADWP.[56] As Project construction would require a nominal amount of water compared to Project operation, and construction would completed by 2025 in a single phase or by 2040 if constructed in separate phases, the Project's intermittent construction-related water demand can be met by LADWP's available water supplies during each year of construction through 2040. For these reasons, adequate water supplies would be available from existing entitlements and resources for Project construction activities. **Therefore, LADWP has sufficient water supplies to service the Project and reasonably foreseeable future development during normal, dry, and multiple-dry years. Construction impacts on water supply would be less than significant.**

(b) Operation

As indicated in the Regulatory Framework, existing domestic water demand on the Project Site is estimated at 58,526 gpd or 65.56 afy. The Project proposes a mix of residential and commercial uses totaling up to 1,792,103 square feet; therefore, a WSA is required pursuant to SB 610. Estimated domestic water demand for the Project, as determined in the WSA based on LA Sanitation's sewer generation rates, are shown in **Table IV.N.2-3**, *Estimated Project Water Demand*.

TABLE IV.N.2-3
ESTIMATED WATER DEMAND

Proposed Uses	Quantity	Water Use Factor (gpd/unit)[a]	Base Demand (gpd)	Water Efficiency Requirements Ordinance Savings (gpd)	Net Proposed Water Demand (gpd)	Net Proposed Water Demand (afy)
Residential						
Studio	73 du	75/du	5,475			
1 Bedroom	169 du	110/du	18,590			
2 Bedroom	49 du	150/du	7,350			
3 Bedroom	17 du	190/du	3,230			
Base Demand Adjustment (Residential Units)			3,780			
Residential Units Subtotal	*308 Du*		*38,425*	*10,265*	*28,160*	*31.55*
Lobby	4,260 sf	0.05/sf	213			
Pool/Spa	1,020 sf		96			
BBQ area	260 sf	0.13/sf	33			
Residential Amenities Subtotal			*342*		*0*	*0*

[56] LADWP, *WSA*, pp. 4 and 5.

TABLE IV.N.2-3
ESTIMATED WATER DEMAND

Proposed Uses	Quantity	Water Use Factor (gpd/unit)[a]	Base Demand (gpd)	Water Efficiency Requirements Ordinance Savings (gpd)	Net Proposed Water Demand (gpd)	Net Proposed Water Demand (afy)
Hotel Room	236 room	120/room	28,320			
Based Demand Adjustment (Hotel Room)[e]			2,565			
Hotel Room Subtotal			*30,885*	*3,370*	*27,515*	*30.82*
Lobby	2,853 sf	0.05/sf	143			
Pool/Spa	750 sf		70			
Pool Deck[b]	3,000 sf	0.30/sf	900			
Bar	4,000 sf	0.72/sf	2,880			
Ballroom	3,000 sf	0.35/sf	1,050			
Meeting Room	1,000 sf	0.12/sf	120			
Hotel Amenities Subtotal			*5,163*	*643*	*4,520*	*5.06*
Restaurant: Full Service[c]	5,972 seat	30.00/seat	179,160			
General Retail	79,240 sf	0.03/sf	1,981			
Grocery Store	28,054 sf	0.05/sf	1,403			
Market Retail[d]	800 sf	0.03/sf	24			
Market: Fast Food Outdoor Seat[c,d]	67 seat	25.00/seat	1,675			
Market: Bar[d]	1,000 sf	0.72/sf	720			
Market: Coffee House[d]	800 sf	0.72/sf	576			
Office	944,055 sf	0.12/sf	113,287			
Office Lobby	12,026 sf	0.05/sf	601			
Water Features	1,200 sf		113			
Gallery Space[e]	93,617 sf	0.03/sf	2,809			
Gym	62,148 sf	0.65/sf	40,396			
Base Demand Adjustment (Commercial)			2,513			
Commercial Subtotal			*345,258*	*31,901*	*313,357*	*351.03*
Landscaping[f]	*101,117 sf*		*9,445*	*5,154*	*4,291*	*4.81*
Covered Parking Structure[g]	*854,140 sf*	*0.02/sf*	*562*	*0*	*562*	*0.63*
Cooling Tower Total	*6,000 ton*	*25.25*	*151,470*	*30,294*	*121,176*	*135.74*

TABLE IV.N.2-3
ESTIMATED WATER DEMAND

Proposed Uses	Quantity	Water Use Factor (gpd/unit)[a]	Base Demand (gpd)	Water Efficiency Requirements Ordinance Savings (gpd)	Net Proposed Water Demand (gpd)	Net Proposed Water Demand (afy)
Proposed Total			**581,550**	**81,969**	**499,581**	**559.64**
				Less Existing Uses to Be Removed	-58,526	-65.56
				Less Additional Conservation[h]	-1,112	-1.25
				Net Additional Water Demand	**439,943**	**492.83**

NOTE(S):

[a] Water Use Factor is based on City's Department of Public Works, Bureau of Sanitation sewer generation rates.
[b] The Hotel Pool Deck will provide limited food and beverage service.
[c] Seats assume 1 seat/15 sf.
[d] The Arts District Central Market will house different vendors together under one space for a total of 28,858 sf.
[e] Gallery space can be potential event or museum space.
[f] Landscaping water use is estimated per California Code of Regulations Title 23, Division 2, Chapter 2.7, Model Water Efficient Landscape Ordinance.
[g] Auto parking water uses are based on City of Los Angeles Department of Public Works, Bureau of Sanitation Sewer Generation Rates table, and 12 times/year cleaning assumption.
[h] Water conservation due to conservation commitments, as detailed in WSA and as PDF WS-1, agreed by the Applicant.

SOURCE(S): LADWP, WSA, pp. 8 and 9.

As indicated in Table IV.N.2-3, the Project would result in a net increase in domestic water demand of an estimated 439,943 gpd or 492.83 afy. This estimate takes into account required water conservation features and the additional water conservation features committed to by the Project Applicant in the WSA (e.g., Project Design Feature PDF-WS-1), which together would account for 14.3 percent of the base demand of 581,550 gpd.[57]

LADWP determined in the approved WSA that there are adequate water supplies available from existing LADWP entitlements and supplies to meet the Project's projected water demand, in addition to existing and planned future demand on LADWP, annually during normal, single-dry, and multiple-dry water years over the next 20 years, as required by SB 610, as well as through at least 2040 (the planning horizon of the LADWP's 2015 UWMP). In addition, as stated in the WSA, the Project's water demand falls within the LADWP's 2015 UWMP's projected increases in Citywide water demands, while anticipating multi-dry year water conditions during the planning period.[58]

[57] The required water conservation features would reduce the water demand by 81,969 gpd. PDF-WS-1 would reduce water demand by 1,112 gpd. Together (83,081 gpd), they would account for 14.3 percent of the base demand of 581,550 gpd.
[58] LADWP, *WSA*, April 2018, pp. 4 and 5.

As previously discussed, LADWP expects to have a reliable supply of up to 675,700 acre-feet of water in 2040.[59] As further discussed in the UWMP, LADWP expects to maintain a reliable water supply through conservation, increased recycled water use (including both non-potable and potable reuse), increasing City sources of water, and reducing purchases from the MWD.[60] Between 2015 and 2040, the City's local water supplies are planned to increase from 14 percent to 49 percent of total water supply usage in dry years, and to 47 percent in average years.[61] The City's imported supplies will decrease significantly from 86 percent to 51 percent of water supply use in dry years, and to 53 percent in average years.

With respect to the MWD's ability to sell water to the LADWP, the MWD's 2015 RUWMP shows that with its investments in storage, water transfers, and improving the reliability of the Delta, critical water shortages are not expected to occur within the next 25 years.[62] As previously stated, both the 2015 RUWMP and 2015 IRP anticipate a surplus of available water to meet projected demand.

In addition, the WSA found that: (1) the Project would be consistent with the demographic projections for the City in both the 2012 and 2016 RTPs; (2) the Project's water demand has been accounted for in the City's overall total demand projections in the LADWP 2015 UWMP; and (3) LADWP water supplies would be adequate during normal, single-dry and multi-year dry years to meet the Project, existing, and projected future demand through 2040.[63] Based on the 2015 UWMP, which incorporates SCAG 2012-2035 RTC/SCS growth projections, the LADWP determined that it could provide a highly reliable water supply to its customers through 2040, the Project's buildout horizon year, including during each interim year. Therefore, as determined by the WSA, the 2015 UWMP's projections for water demand and supply would include the water demand required for the Project.

Based on the above, sufficient domestic water supplies are available to service the Project and reasonably foreseeable future development during normal, dry and multiple dry-years. Operational impacts on water supply would be less than significant.

(c) Project with the Deck Concept

As previously discussed, similar to the Project, during construction of the Project with the Deck Concept, water use by construction workers would be less than the existing water consumption of the Project Site. Such water supply demand would not cause a measurable increase in water supply that is available by LADWP. **Therefore, LADWP has sufficient water supplies to service the Project with the Deck Concept and**

59 LADWP, *2015 UWMP*, 2016, p. ES-23.
60 LADWP, *2015 UWMP*, 2016, p. ES-1.
61 LADWP, *2015 UWMP*, 2016, p. ES-20.
62 MWD, *2015 RUWMP*, June 2016, p. ES-5.
63 LADWP, *WSA*, April 2018, pp. 4 and 5.

reasonably foreseeable future development during normal, dry, and multiple-dry years. Construction impacts on water supply would be less than significant.

Operation of the Project with the Deck Concept would not include additional uses that are not already analyzed under the Project. Additional event programming, as compared to the Project, proposed under the Project with the Deck Concept would be temporary and would not occur every day and throughout the day. Therefore, as determined by the WSA, the 2015 UWMP's projections for water demand and supply would include the water demand required for the Project with the Deck Concept. **Based on the above, sufficient domestic water supplies are available to service the Project with the Deck Concept and reasonably foreseeable future development during normal, dry and multiple dry-years. Operational impacts on water supply would be less than significant.**

(2) Mitigation Measures

Impacts regarding domestic water supplies were determined to be less than significant without mitigation. Therefore, no mitigation measures are required.

(3) Level of Significance After Mitigation

Impacts regarding domestic water supplies 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

Chapter III, *General Description of Environmental Setting*, of this Draft EIR, identifies 141 related projects that are anticipated to be developed in the Project vicinity. The related projects would contribute, in conjunction with the Project, to overall water demand in the City.

(1) Impact Analysis

(a) Water Infrastructure

Development of the Project, in conjunction with the related projects, would cumulatively increase service demand on the existing water infrastructure system. However, each related project would be subject to City review to assure that the existing public utility facilities would be adequate to meet the domestic and fire water demands of each project. All projects are required to obtain a SAR, based on flow testing of facilities, to verify that there is available service. Individual projects are required to improve facilities where appropriate and development cannot proceed without appropriate verification and approval. Furthermore, LADWP, together with the City's Department of Public Works, conducts ongoing evaluations to ensure facilities are adequate and requires infrastructure system improvements as needed. **As discussed above, Project-level impacts related to water infrastructure would be less than significant. Therefore, cumulative impacts on water infrastructure would be less than significant.**

(b) Water Supply

As discussed above, LADWP, as a public water service provider, is required to prepare and periodically update its UWMP to plan and provide for water supplies to serve existing and projected demands. LADWP's 2015 UWMP accounts for existing development within the LADWP service area, as well as projected growth through the year 2040. Additionally, under the provisions of SB 610, LADWP is required to prepare a comprehensive WSA for every new development "project" (as defined by Section 10912 of the Water Code) within its service area that meets certain criteria. The WSAs for such projects, in conformance with the UWMP, would evaluate the reliability of existing and projected water supplies, as well as alternative sources of water supply and measures to secure alternative sources if needed, on a project-by-project basis.

The 141 related projects would contribute, in conjunction with the Project, to overall water demand from LADWP. As indicated in **Table IV.N.2-4**, *Estimated Cumulative Water Demand*, the estimated cumulative water demand of the related projects (including Project demand) would be 11,610,776 gpd or 13,005.73 afy. This estimate is likely conservative (i.e., high) since it does not account for the demolition of existing uses that currently generate demand, nor does it quantify code-required conservation or applicant conservation commitments that would reduce demand by the related projects.

As discussed with respect to Project impacts above, LADWP expects to have a reliable supply of up to 675,700 afy of water in 2040 to service an estimated demand of 675,700 afy based on anticipated growth (565,600 afy with implementation of all existing and planned future water conservation measures), which would include projects that are accounted for within SCAG's 2012 RTP/SCS.[64]

LADWP expects to accommodate future demand in part by increasing the proportion of water supply being purchased from the MWD. The MWD's 2015 RUWMP shows that with its investments in storage, water transfers, and improving the reliability of the Delta, water shortages are not expected to occur within the next 25 years. As previously indicated, both the 2015 RUWMP and 2015 IRP anticipate a surplus of available water to meet projected demand.

64 LADWP, *2015 UWMP*, 2016, p. ES-23.

TABLE IV.N.2-4
ESTIMATED CUMULATIVE WATER DEMAND

Land Use	Quantity	Generation Rate (gpd/unit)[a]	Water Demand (gpd)	Water Demand (afy)
Residential[b]	40,289 du	150/du	6,043,350	6,769.40
Office[c,d]	13,438.37 ksf	170/ksf	2,284,523	2,558.99
Retail (Less than 100 ksf)	1,016.9 ksf	25/ksf	25,423	28.48
Retail (More than 100 ksf)	2,602.32 ksf	50/ksf	130,116	145.75
Child Care[e]	350 children	9/child	3,150	3.53
Restaurant[f]	733 ksf (48,866 seats)	30/seat	1,465,980	1,642.10
Fast-Food Restaurant[g]	3.5 ksf (234 seats)	25/seat	5,850	6.55
Cinema[h]	744 seats	3/seat	2,232	32.50
University	1,400 students	16/student	22,400	25.09
Hotel	3,643 rooms	120/room	437,160	489.69
High School[i]	532 students	11/student	5,852	6.56
Elementary School[j]	925 students	9/student	8,325	9.33
Other & Mixed Use[k,l]	69.924 ksf (4,662 seats)	30/seat	139,848	156.65
Assisted Living	55 beds	70/bed	3,850	4.31
Private Club[m]	48.862 ksf	50/ksf	2,443	2.74
Bus Facility[n]	87.12 ksf	20/ksf	1,742	1.95
Club[o]	4.8 ksf	50/ksf	240	0.27
Commercial	953 ksf	50/ksf	47,627	53.35
Museum[p]	114 ksf	30/ksf	3,420	3.83
Industrial[q]	2,165 ksf	50/ksf	108,269	121.29
Event Space[r]	7,357 seats	3/seat	22,071	24.72
Bar	22.19 ksf	720/ksf	15,977	17.90
Commercial: Others[s]	373 ksf	50/ksf	18,661	20.90
Medical Office	25 ksf	250/ksf	6,250	7.00
Library	15 ksf	50/ksf	750	0.84
Health Club	54 ksf	650/ksf	35,100	39.32
Jail	3,885 inmates	85/inmate	330,225	369.90
Total Water Demand by Related Projects			**11,170,833**	**12,512.90**
Net Additional Water Demand from Project			439,943[t]	492.83
Cumulative Water Demand with Project			***11,610,776***	***13,005.73***

TABLE IV.N.2-4
ESTIMATED CUMULATIVE WATER DEMAND

NOTE(S):

du = dwelling unit; ksf = thousand square feet; gpd = gallons per day

[a] Water demand generation factors are based on LA Sanitation's Sewage Generation Factors for Residential and Commercial Categories, dated April 6, 2012.
[b] Rates for residential water demand generation vary depending on unit type and size. It was assumed that all residential projects would have an average size of two bedrooms.
[c] Office applies the Office Building with Cooling Tower generation factor.
[d] Related Project No. 14 (Office) assumes 150 square feet per office employee.
[e] Child Care and Day Care applies the School: Nursery – Day Care generation factor. It is assumed that each child will require approximately 50 square feet.
[f] Restaurant uses Restaurant: Full Service Outdoor Seat generation factor. Retail/Restaurant projects applies the Restaurant generation factor as it is more conservative. It is assumed that each seat will require approximately 15 square feet.
[g] Fast Food Restaurants assume each seat requires 15 square feet.
[h] Cinema and Theater applies the Theater: Cinema generation factor.
[i] Related Project No. 8 applies the School: High School generation factor as no school type has been determined.
[j] Related Project No. 135 is an elementary school serving K-4. It is assumed that each person provided equates one seat.
[k] Other and Mixed Use applies the Restaurant: Full Service Outdoor Seat generation factor to be conservative.
[l] Related Project No. 137 (Other) provides a number of people. It is assumed that each person equates one seat.
[m] Related Project No. 21 (Mixed Use Private Club) applies the Lounge generation factor.
[n] Bus Facility applies the Auto Parking generation factor. Related Project No. 24 is converted from two acres to 87,120 square feet.
[o] Related Project No. 27 assumes that each room in the Club is approximately 100 square feet.
[p] Museum includes Museum, Art Space, and Art School uses
[q] Industrial includes Wholesale/Storage, Industrial/ Warehouse, and Manufacturing uses.
[r] Event Space applies the Theater: Cinema generation factor and includes Event Space, Sports Complex, and Production Space. It is assumed that each seat requires approximately 9 square feet.
[s] Commercial: Others includes Supermarket, Grocery, Pharmacy/Drugstore, and Shopping.
[t] Project Net Additional Water Demand is from Table IV.N.2-3.
[u] Totals may not add up due to rounding.

SOURCE(S): ESA, 2018.

Compliance by the Project and the related projects with regulatory requirements that promote water conservation, such as the CALGreen Code, City's Green Building Code, and the LAMC, would also ensure that adequate water supplies are available on a cumulative basis. Moreover, the approved WSA for the Project provides a more detailed accounting of the reliable water supply sources for the Project and cumulative growth in the future than is presented in this impact analysis. For example, the approved WSA for the Project identifies long-term water conservation strategies, including conservation rebates and incentives to reduce indoor and outdoor water use, retrofitting facilities with water-efficient hardware, promoting water efficiency in new developments, water recycling, enhanced stormwater capture, and accelerating clean-up of the San Fernando Basin to increase its contribution to the water supply.

In addition, similar to the Project, for each related project, LADWP would be required to determine whether or not it could provide a highly reliable water supply to its customers. The related projects that would trigger SB 610 would require an approved WSA, which

would require for (1) the project to be consistent with the demographic projections for the City in both the 2012-2035 and 2016-2040 RTP/SCSs, whereas other projects that would not trigger SB 610 would be required to coordinate with the service provider, LADWP, to ensure that the respective project would have available supply and capacity to serve the project; (2) the project's water demand has been accounted for in the City's overall total demand projections in the LADWP 2015 UWMP; and (3) LADWP water supplies would be adequate during normal, single-dry and multi-year dry years to meet the project, existing, and projected future demand through 2040. As determined in Section IV.J, *Population and Housing*, of the Draft EIR, the related projects would generate population, housing, and employment growth within the 2045 SCAG projections identified in the 2020-2045 RTP/SCS for the City. As LADWP's UWMPs would use the SCAG projections, the related projects that are consistent with the City's General Plan are included in the planned growth of the City's water demand. Further, related projects would be required to comply with SB 610 as needed and would be evaluated on a case-by-case basis. Additionally, as previously stated, LADWP expects to have a reliable supply of up to 675,700 afy of water in 2040, which would service the water demand generated by the Project and related projects. As discussed above, Project-level impacts related to water supply would be less than significant. **Therefore, based on the above, cumulative impacts on water supply would be less than significant.**

(c) Project with the Deck Concept

Cumulative impacts associated with water supply would be the same under the Project or the Project with the Deck Concept as the Deck would not include additional uses that are not already accounted for under the Project. Thus, the conclusions regarding cumulative impact significance presented above are the same and apply to the Project and the Project with the Deck Concept. **As such, cumulative impacts associated with water supply under the Project with the Deck Concept would be less than significant.**

(2) Mitigation Measures

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

(3) Level of Significance After Mitigation

Cumulative impacts regarding water supply 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.

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