IV. Environmental Impact Analysis

J.1 Utilities and Service Systems—Water Supply and Infrastructure

1. Introduction

This section evaluates potential Project impacts on water supply and whether the Project would require or result in the construction of new water treatment facilities, including conveyance infrastructure, the construction of which would cause significant environmental effects. The Los Angeles Department of Water and Power (LADWP) is the water supplier for the Project Site. This section describes LADWP's available water supplies, current and projected regional water demand, municipal water infrastructure serving the Project Site, and the adequacy of water supplies and infrastructure to meet Project demand. This analysis is based on the *Utility Infrastructure Technical Report: Water* (Water Utility Report), prepared for the Project by LFA Consulting Engineers, dated April 2021, included as Appendix M of this Draft EIR.

2. Environmental Setting

a. Regulatory Framework

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

- California Urban Water Management Plan Act
- Senate Bill 610 (California Water Code Section 10910 et seq.)
- Senate Bill 221 (California Water Code Sections 11010, 65867.5, 66455.3 and 66473.7)
- Senate Bill 7 (California Water Code Section 10608)
- Senate Bill X7-7 (Water Conservation Act of 2009)
- Sustainable Groundwater Management Act of 2014
- California Code of Regulations (Title 20 and Title 24)

- State of Drought Emergency Declaration and Executive Orders B-29-15, B-36-15, B-37-16, and B-40-17
- California Water Plan and the California Water Action Plan
- Metropolitan Water District's 2020 Urban Water Management Plan, Integrated Resources Plan, the Water Surplus and Drought Management Plan, and the Water Supply Allocation Plan
- Los Angeles Department of Water and Power's 2020 Urban Water Management Plan
- Green New Deal
- One Water LA 2040 Plan
- City of Los Angles General Plan, including
  - Framework Element; and
  - Community Plan
- Los Angeles Municipal Code (Ordinance Nos. 166,080, 181,288, 183,608, 184,250, 180,822, 181,480, 181,899, 183,833, 182,849, 184,692, and 184,248)
- Los Angeles Water Rate Ordinance

(1) State

(a) California Urban Water Management Plan Act

The California Urban Water Management Planning Act (Water Code, Section 10610, et seq.) addresses several state policies regarding water conservation and the development of water management plans to ensure the efficient use of available supplies. The California Urban Water Management Planning Act also requires Urban Water Suppliers to develop Urban Water 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. Urban Water Suppliers are defined as water suppliers that either serve more than 3,000 customers or provide more than 3,000 acre feet per year (afy) of water to customers.

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

Two of the state laws addressing the assessment of water supply necessary to serve large-scale development projects, Senate Bill (SB) 610 and SB 221, became effective January 1, 2002. SB 610, codified in Water Code Sections 10910–10915,

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

- Residential developments of more than 500 dwelling units;
- Shopping centers or business establishments employing more than 1,000 persons or having more than 500,000 square feet of floor space;
- Commercial office buildings employing more than 1,000 persons or having more than 250,000 square feet of floor space;
- Hotels, motels, or both, having more than 500 rooms;
- Industrial, manufacturing, or processing plants, or industrial parks planned to house more than 1,000 persons, occupying more than 40 acres of land, or having more than 650,000 square feet of floor area
- Mixed-use projects that include one or more of the projects specified in this subdivision; 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. (Water Code Section 912, CEQA Guidelines Section 15155(a).

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

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

any; (3) a description and analysis of groundwater use in the past 5 years; and (4) a discussion of the sufficiency of the groundwater that is projected to be pumped by the supplier.

SB 221 also addresses water supply in the land use approval process for large residential subdivision projects. However, unlike SB 610 WSAs, which are prepared at the beginning of a planning process, SB 221–required Water Supply Verification (WSV) is prepared at the end of the planning process for such projects. 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 must make a specific 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. However, 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 7, enacted on November 10, 2009, mandates new water conservation goals for UWMPs, requiring Urban Water Suppliers to achieve a 20-percent per capita water consumption reduction by the year 2020 statewide, as described in the "20 x 2020" State Water Conservation Plan.[1] As such, each updated UWMP must now incorporate a description of how each respective urban water supplier will quantitatively implement this water conservation mandate, which requirements in turn must be taken into consideration in preparing and adopting WSAs under SB 610.

(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 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.[2] Cumulative statewide savings from June 2015 through February 2017 were estimated at

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[1] *State Water Resources Control Board, Final 20 x 2020 Water Conservation Plan, February 2010.*

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

22.5 percent.[3] 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.[4]

(d) Sustainable Groundwater Management Act of 2014[5]

The Sustainable Groundwater Management Act (SGMA) of 2014, passed in September 2014, is a comprehensive three-bill package that provides a framework for the sustainable management of groundwater supplies by local authorities.[6] The SGMA requires the formation of local groundwater sustainability agencies to assess local water basin conditions and adopt locally based management plans. Local groundwater sustainability agencies were required to be formed by June 30, 2017. The SGMA provides 20 years for groundwater sustainability agencies to implement plans and achieve long-term groundwater sustainability, and protect existing surface water and groundwater rights. The SGMA provides local groundwater sustainability agencies with the authority to require registration of groundwater wells, measure and manage extractions, require reports and assess fees, and request revisions of basin boundaries, including establishing new subbasins. Furthermore, SGMA requires governments and water agencies of high and medium priority basins to stop overdraft and bring groundwater basins into balanced levels of pumping and recharge. Under SGMA, these basins should reach sustainability 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, Section 1605.3 (h) and 1505(i) of the California Code of Regulations (CCR) establishes applicable State efficiency standards (i.e., maximum flow rates) for plumbing fittings and fixtures, including fixtures such as showerheads, lavatory faucets and water closets (toilets). Among the standards, the maximum flow rate for showerheads manufactured on or after July 1, 2018 is 1.8 gpm at 80 pounds per square inch (psi); and

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[3] *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.*

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

[5] *Sustainable Groundwater Management Act [And Related Statutory Provisions from SB1168 (Pavley), AB1739 (Dickinson), and SB1319 (Pavley) as Chaptered], 2015 Amendments, effective January 1, 2016.*

[6] *California Department of Water Resources. SGMA Groundwater Management, https://water.ca.gov/Programs/Groundwater-Management/SGMA-Groundwater-Management, accessed March 30, 2021.*

lavatory faucets manufactured after July 1, 2016 is 1.2 gpm at 60 psi. The standard for toilets sold or offered for sale on or after January 1, 2016 is 1.28 gallons per flush.[7]

(ii) CALGreen Code

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 the 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 a 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 as well as voluntary measures. The mandatory measures establish minimum baselines that must be met in order for a building to be approved. The mandatory measures for water conservation provide limits for fixture flow rates, which are the same as those for the Title 20 efficiency standards listed above. The voluntary measures can be adopted by local jurisdictions for greater efficiency.

(iii) Plumbing Code

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

(f) State of Drought Emergency Declaration and Executive Orders

In response to California's drought conditions, on January 17, 2014, Governor Brown declared a State of Drought Emergency and directed state officials to take numerous necessary actions with local Urban Water Suppliers and municipalities to reduce the impacts of the ongoing drought conditions that had been occurring in California since approximately 2009.[8] Subsequently, four Executive Orders were issued between April

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[7] *California Code of Regulations, Title 20, Section 1605.3(h), https://energycodeace.com/site/custom/public/reference-ace-t20/index.html#!Documents/section16053statestandardsfornonfederallyregulatedappliances.htm, accessed March 30, 2021.*

[8] *State of California, Office of Governor Edmund G. Brown, Jr., Governor Brown Declares Drought State of Emergency, January 17, 2014, www.ca.gov/archive/gov39/2014/01/17/news18368/index.html, accessed March 30, 2021.*

2015 to April 2017 to address changing drought conditions and provide guidance for addressing the drought conditions.

Executive Order B-29-15 (April 2015) imposed a mandatory 25 percent statewide water reduction on potable water use by Urban Water Suppliers. It prioritized water infrastructure projects, incentivized water efficiencies, and streamlined permitting with new approval processes for water transfers and emergency drinking water projects. Executive Order B-36-15 (November 2015) called for additional actions to build on the state's response to record dry conditions and assisted recovery efforts from devastating wildfires; and Executive Order B-37-16 (May 2016) continued water use restrictions from Executive Order B-29-15 as drought conditions continued to persist. Executive Order B-37-16 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 persists.[9]

The regulatory requirements resulting from these Executive Orders were codified in Article 22.5, Drought Emergency Water Conservation of the CCR.

In May 2016, SWRCB adopted a revised emergency water conservation regulation, effective June 2016 through at least February 2017, which rescinded numeric reduction targets for Urban Water Suppliers, instead requiring locally developed conservation standards based upon each agency's specific circumstances.[10]

On April 7, 2017, Executive Order B-40-17 was issued to formally end the drought emergency and lifted the drought emergency in all California counties except Fresno, Kings, Tulare, and Tuolumne. In response to Executive Order B-40-17, on April 26, 2017, the SWRCB partially repealed the emergency regulation in regard to water supply stress test requirements and remaining mandatory conservation standards for urban water suppliers.[11,12] The order also rescinded two drought-related emergency proclamations and four drought-related executive orders. Cities and water districts throughout the state are required to continue reporting their water use each month. Executive Order B-40-17 continued the ban on wasteful practices, including hosing off sidewalks and running sprinklers when it rains.

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[9] *State of California, Office of Governor Edmund G. Brown, Jr., Governor Brown Issues Order to Continue Water Savings as Drought Persists, May 9, 2016, www.ca.gov/archive/gov39/2016/05/09/news19408/index.html, accessed March 30, 2021.*

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

[11] *State Water Resources Control Board, Emergency Conservation Regulation, 2017.*

[12] *State Water Resources Control Board, Resolution No. 2017-0024.*

Finally, on October 19, 2021, Governor Gavin Newsom proclaimed a state of emergency in response to ongoing drought conditions throughout the state.[13]

(g) California Water Plan

Required by the 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.[14] It provides a collaborative planning framework for elected officials, agencies, tribes, water and resource managers, businesses, academia, stakeholders, and the public to develop findings and recommendations and make informed decisions for California's water future.

The plan, updated every 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 July 2019, DWR released the Final 2018 Update to the California Water Plan.[15] The document provides recommended actions, funding scenarios, and an investment strategy to bolster efforts by water and resource managers, planners, and decision-makers to overcome the State's most pressing water resource challenges. It reaffirms the State government's role and commitment to sustainable, equitable, long-term water resource management; and introduces implementation tools to inform decision-making. The 2018 Update recommends significant additional investment in infrastructure and ecosystem improvements to overcome challenges to sustainability; and it recommends actions to

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[13] *Office of Governor Gavin Newsom, Governor Newsom Expands Drought Emergency Statewide, Urges Californians to Redouble Water Conservation Efforts, October 19, 2021, www.gov.ca.gov/2021/10/19/ governor-newsom-expands-drought-emergency-statewide-urges-californians-to-redouble-water-conservation-efforts/, accessed March 1, 2022.*

[14] *Department of Water Resources, California Water Plan, https://water.ca.gov/Programs/ California-Water-Plan, accessed March 30, 2021.*

[15] *DWR, DWR Releases Final California Water Plan Update 2018, https://water.ca.gov/News/News-Releases/2019/July-19/Final-Water-Plan-Update-2018, accessed March 30, 2021.*

resolve systemic and institutional issues that contribute to many of the state's water challenges.[16]

(h) California Water Action Plan

The California Water Action Plan is a roadmap for the State's journey towards sustainable water management. The first California Water Action Plan was released in January 2014 under Governor Brown's administration and updated in 2016.[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 further increasing the severity of these risks.[18]

(2) Regional

(a) Metropolitan Water District

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 of Los Angeles.

(i) 2020 Urban Water Management Plan

The Metropolitan Water District's (MWD) 2020 UWMP (RUWMP) addresses the future of MWD's water supplies and demand through the year 2045.[19] 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 2-5 of the 2020 RUWMP.[20] The analysis in the 2020 RUWMP

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16 *DWR, California Water Plan Update 2018, Executive Summary, pages ES-1 to ES-2.*

17 *California Natural Resources Agency, California Water Action Plan, 2016 Update.*

18 *California Natural Resources Agency, California Water Action Plan 2016 Update, pp. 2–3.*

19 *Metropolitan Water District of Southern California, 2020 Regional Urban Water Management Plan, May 2021.*

20 *Metropolitan Water District of Southern California, 2020 Urban Water Management Plan, p. 2-19.*

concluded that reliable water resources would be available to continuously meet demand through 2045.[21] In the 2020 RUWMP, the projected 2045 demand water during multiple-dry year conditions is 1,564,000 afy, whereas the expected and projected 2045 supply is 2,239,000 afy based on current programs, for a potential surplus in 2045 of 675,000 afy.[22]

MWD has comprehensive plans for stages of actions it would undertake to address up to a 50-percent reduction in its water supplies and a catastrophic interruption in water supplies through its Water Surplus and Drought Management and Water Supply Allocation Plans. MWD has also developed an Emergency Storage Requirement to mitigate against potential interruption in water supplies resulting from catastrophic occurrences within the Southern California region and is working with the State to implement a comprehensive improvement plan to address catastrophic occurrences that could occur outside of the Southern California region. MWD is also working with the State on the Delta Risk Management Strategy to reduce the impacts of a seismic event in the Delta that would cause levee failure and disruption of State Water Project (SWP) deliveries. In addition, MWD has plans for supply implementation and continued development of a diversified resource mix, including programs in the Colorado River Aqueduct, SWP, Central Valley transfers, local resource projects, and in-region storage that enables the region to meet its water supply needs.

(ii) 2015 Integrated Resources Plan

The MWD prepares an Integrated Water Resources Plan (IRP) that provides a water management framework with 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.[23] 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.

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

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[21] *Metropolitan Water District of Southern California, 2020 Urban Water Management Plan, p. 2-19.*

[22] *Metropolitan Water District of Southern California, 2020 Urban Water Management Plan, p. 2-19.*

[23] *Metropolitan Water District of Southern California, Integrated Water Resources Plan, 2015 Update, Report No. 1518, 2016.*

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.

Planned actions to keep supplies and demands in balance include, among others, 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 from outdoor landscapes and advancing additional local supplies. IRP 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 the IRP, 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 acre-feet and the total supply reliability target is approximately 4,539,000 acre-feet, representing an excess of 266,000 acre-feet.[24]

The 2020 IRP planning process is currently in development.[25] The 2020 IRP analyzes multiple scenarios that could plausibly unfold in the future due to climate change, economic growth, legislation and regulations affecting water sources and demands, and other variables. With the variability of these impacts in mind, MWD is developing four scenarios to help understand the challenges of the future and effectively plan to ensure water reliability in the face of those challenges.

(iii) 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 (WSDM Plan). The overall objective of the WSDM Plan is to ensure that shortage allocation of MWD's imported water supplies is not required. The WSDM Plan provides policy guidance to manage MWD's supplies and achieve the goals laid out in the agency's IRP. The WSDM Plan separates resource actions into two major categories: Surplus Actions and Shortage Actions. The WSDM 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 WSDM are separated into three subcategories: Shortage, Severe Shortage, and Extreme Shortage. Each category has associated actions that could be taken as part of the response to prevailing shortage conditions. Conservation and water

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[24] *Metropolitan Water District of Southern California, Integrated Water Resources Plan—2015 Update, Report No. 1518, 2016, p. VIII.*

[25] *Metropolitan Water District of Southern California, Integrated Water Resources Plan, 2020.*

efficiency programs are part of MWD's resource management strategy through all categories.[26]

(iv) Long-Term Conservation Plan

The Long-Term Conservation Plan (LTCP) provides a framework of goals and strategies to reduce per capita water use through conservation and water use efficiency. The plan recognizes the challenges and uncertainties to achieving the IRP target. As a result, the LTCP uses adaptive management and strategies to adjust implementation approaches.

(v) Water Supply Allocation Plan

While the WSDM 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 (WSAP), which has since been implemented three times, most recently in April 2015 (under the new name Drought Rationing Plan). The WSAP includes a formula for determining equitable, needs-based reductions of water deliveries, with the potential application of a surcharge, to member agencies during extreme water shortages in MWD's service area conditions (i.e., drought conditions or unforeseen interruptions in water supplies).

The WSAP allows member agencies the flexibility to choose among various local supply and conservation strategies to help ensure that demands on MWD stay in balance with limited supplies. The WSAP formula addresses shortages of MWD supplies, by taking 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.[27] 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 2020 Urban Water Management Plan

In accordance with the California Urban Water Management Planning Act, UWMPs are updated at 5-year intervals. LADWP adopted the 2020 UWMP on May 25, 2021. The

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[26] *Metropolitan Water District of Southern California, Water Surplus and Drought Management Plan, Report No. 1150. August 1999.*

[27] *Metropolitan Water District of Southern California, 2015 Urban Water Management Plan, p. 2-21.*

2020 UWMP complies with the Urban Water Management Planning Act, builds upon the goals and progress made in the 2015 UWMP and currently serves as the City's master plan for reliable water supply and resource management consistent with the City goals and objectives. 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 methodology in developing its water demand projections. This methodology does not rely on individual development demands to determine area-wide growth. Rather, the projected growth in water use for the entire service area was considered in developing long-term water projections for the City to the year 2045. Long range projections are based on Southern California Association of Government (SCAG) growth projections. The 2020 UWMP is based on projections in the 2020 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS).

(b) Green New Deal

The City released the first Sustainable City pLAn in April 2015,[28] which has been updated in 2019 as the City's Green New Deal. The Green New Deal includes a multi-faceted approach to developing a locally sustainable water supply to reduce reliance on imported water, reducing water use through conservation, and increasing local water supply and availability.

(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.[29] 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.[30] 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.

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[28] *City of Los Angeles, Sustainable City pLAn, 2015, www.lacity.org/highlights/sustainable-city-plan, accessed March 30, 2021.*

[29] *City of Los Angeles, One Water LA 2040 Plan, Volume 1, Summary Report, April 2018.*

[30] *City of Los Angeles, Office of the Mayor, Executive Directive No. 5, Emergency Drought Response—Creating a Water Wise City, October 14, 2014.*

(d) City of Los Angeles General Plan

(i) General Plan Framework Element

The Citywide General Plan Framework Element (Framework Element) establishes the conceptual basis for the City's General Plan.[31] 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 City's Framework Element identifies goals, objectives, and policies for City utilities including water service. Goal 9C is to provide adequate water supply, storage facilities, and delivery system to serve the needs of existing and future water needs.[32] The goals, objectives and policies are addressed by the City in its ordinances and preparation of its UWMP.

The General Plan goals, objectives and policies related to water supply are shown in Table IV.J.1-1 on page IV.J.1-15.

(ii) Community Plan

The Land Use Element of the City's General Plan includes 35 community plans. Community plans are intended to provide an official guide for future development and propose approximate locations and dimensions for land use. The community plans establish standards and criteria for the development of housing, commercial uses, and industrial uses, as well as circulation and service systems. The community plans implement the City's General Plan Framework at the local level and consist of both text and an accompanying generalized land use map. The community plans' texts express goals, objectives, policies, and programs to address growth in the community, including those that relate to utilities and service systems required to support such growth. The community plans' maps depict the desired arrangement of land uses as well as street classifications and the locations and characteristics of public service facilities. The Hollywood Community Plan does not include objectives or policies related to water supply and infrastructure.

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[31] *City of Los Angeles Department of City Planning, Citywide General Plan Framework, An Element of the Los Angeles General Plan, July 27, 1995.*

[32] *City of Los Angeles, General Plan Framework Element, Chapter 9: Infrastructure and Public Services—Water Supply.*

Table IV.J.1-1
Relevant General Plan Utilities and Service Systems Goals, Objectives, and Policies—Framework Element: Chapter 9 Infrastructure and Public Services

Goal/ Objective/ Policy	Description
Goal 9C	Adequate water supply, storage facilities, and delivery system to serve the needs of existing and future residents and businesses.
Objective 9.1	Monitor and forecast demand based upon actual and predicted growth.
Objective 9.8	Monitor and forecast water demand based upon actual and predicted growth.
Policy 9.8.1	Monitor water usage and population and job forecast to project future water needs.
Objective 9.9	Manage and expand the City's water resources, storage facilities, and water lines to accommodate projected population increases and new or expanded industries and businesses.
Policy 9.9.1	Pursue all economically efficient water conservation measures at the local and statewide level.
Policy 9.9.7	Incorporate water conservation practices in the design of new projects so as not to impede the City's ability to supply water to its other users or overdraft its groundwater basins.
Objective 9.10	Ensure that water supply, storage, and delivery systems are adequate to support planned development.
Policy 9.10.1	Evaluate the water system's capability to meet water demand resulting from the Framework Element's land use patterns.
Policy 9.10.2	Solicit public involvement, when appropriate, in evaluating options for the construction of new and/or expansion of existing water facilities.
Objective 9.11	Ensure, to the maximum extent possible, the continued provision of water capacity, quality and delivery after an earthquake or other emergency.
Policy 9.11.1	Provide for the prompt resumption of water service with adequate quantity and quality of water after an emergency.

Source: City of Los Angeles General Plan, Framework Element, re-adopted 2001.

(e) Los Angeles Municipal Code

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

- 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 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 psi is to remain in the water system with the required gpm flowing. According to LAFD, the Project falls within the High Density Industrial and Commercial category, which has a required fire flow of 12,000 gpm available to any block with a residual pressure of 20 psi. Where local conditions indicate consideration must be given to simultaneous fires, an additional 2,000 to 8,000 gpm will be required.LAMC Section 57.507.3.2 also addresses land use-based requirements for fire hydrant spacing and type. Land uses in the Industrial and Commercial category require one hydrant per 80,000 square feet of land with 300-foot distances between hydrants, and 2.5 inch by 4 inch double fire hydrants or 4-inch by 4-inch double fire hydrants. Regardless of land use, every first story of a residential, commercial, and industrial building must be within 300 feet of an approved hydrant.

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

b. Existing Conditions

(1) Water Supply[33]

LADWP is responsible for providing water within the City's limits and ensuring that the water quality meets applicable California health standards for drinking water. As the Project Site is located within the City, LADWP is the water provider for the Project Site.

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[33] *This discussion of existing water supply conditions relies upon the Water Supply Assessment for the Angels Landing Project dated April 28, 2020. This document is available on the City's website at https://planning.lacity.org/eir/AngelsLanding/deir/files/DEIR%20Appendices/App_M.pdf.*

Water is supplied to the City from four primary sources: the Los Angeles Aqueducts (LAA), local groundwater, purchased water from MWD, and recycled water.[34] As shown in Table IV.J.1-2 on page IV.J.1-19, LADWP had an available water supply of 480,539 acre-feet in 2019, with the vast majority of this supply from imported sources including the LAA and MWD. LADWP water sources are described in further detail below.

(a) Los Angeles Aqueducts

Snowmelt runoff from the Eastern Sierra Nevada Mountains is collected and conveyed to the City via the LAA. The LAA supplies come primarily from snowmelt and secondarily from groundwater pumping, and can fluctuate yearly due to the varying hydrological conditions. In recent years, LAA supplies have been less than the historical average because of environmental restoration obligations in Mono and Inyo Counties.

The City holds water rights in the Eastern Sierra Nevada where the LAA water supplies originate. These supplies originate from both streams and groundwater. As indicated in Table IV.J.1-2, approximately 344,622 acre-feet of LADWP's water supplies were from the LAA in 2019.

Average deliveries from LAA system have been approximately 111,293 acre-feet of water annually from Fiscal Year (FY) 2011/12 to 2015/16. During this period, the record low snowpack for LAA watershed in the Eastern Sierra Nevada Mountains was recorded on April 1, 2015. Supply conditions have changed drastically since 2015. On March 20, 2017, Mayor Garcetti had proclaimed a state of local emergency for LAA as a response to the snowpack levels in the Eastern Sierra. The proclamation was issued to assist LADWP in taking immediate steps to protect infrastructure and manage runoff in the Owens Valley including, but not limited to, protection of facilities and diversion of conveyance flows. However, the snowpack in the Eastern Sierra was at 203 percent of an average year on April 1, 2017.[35] On April 1, 2020, the snowpack was 100 percent of an average year.[36]

Various lawsuits and injunctions, and resulting agreements, affect water supplies from the LAA. These include an agreement with the County of Inyo regarding groundwater levels and enhancement and mitigation projects in the Owens Valley, and the imposition of new regulatory requirements by the SWRCB regarding export from Mono Lake and restoration and monitoring programs for the Mono Basin. In addition, in November 2014, an agreement between the City and the Great Basin Unified Air Pollution Control District

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[34] *LADWP, Water Supply Assessment for the Angels Landing Project, April 28, 2020.*

[35] *LADWP, Water Supply Assessment for the Angels Landing Project, April 28, 2020.*

[36] *LADWP, Eastern Sierra Snow Survey Results, April 1, 2020.*

Table IV.J.1-2
LADWP Water Supply

Calendar Year	Los Angeles Aqueducts (af)	Local Groundwater (af)	MWD (af)	Recycled Water (af)	Transfer, Spread, Spills, and Storage (af)	Total (af)
2007	127,392	88,041	439,353	3,595	−57	658,438
2008	148,407	64,604	427,422	7,048	1,664	645,817
2009	137,261	66,998	351,959	7,570	554	563,234
2010	251,126	68,346	205,240	6,900	−938	532,550
2011	357,752	49,915	119,481	7,708	−153	535,009
2012	166,858	59,109	326,123	5,965	1,182	556,873
2013	64,690	66,272	438,534	9,253	−2,404	581,153
2014	63,960	96,394	391,307	11,307	2,020	560,948
2015	33,244	80,155	378,539	9,829	430	501,337
2016	95,573	72,503	314,336	9,095	−981	492,487
2017	380,329	14,695	113,033	8,509	5,730	510,835
2018	245,942	42,458	212,938	8,832	−858	511,027
2019[a]	344,622	26,433	101,722	8,807	1,045	480,539

Units are in acre-feet.

[a] *Supply data for 2019 are preliminary and may change.*

Source: LADWP, Water Supply Assessment for the Angels Landing Project, April 28, 2020.

was reached wherein LADWP will continue to implement measures to address dust emissions at Owens Lake and implement additional water conservation through increasing use of water efficient and waterless dust measures. Upon completion of the Phase 9/10 Project on December 31, 2017, LADWP had mitigated dust emissions from 48.6 square-miles of Owens Lake. Based on the agreement, the Great Basin Unified Air Pollution Control District's potential future dust mitigation orders to LADWP cannot exceed an additional 4.8 square miles. As a result, LADWP expects to save significant amounts of water over the next 10 years with implementation of the Owens Lake Master Project and other water conservation projects.[37]

LADWP projects that the average annual long-term LAA delivery between 2020 and 2040 will increase from 275,700 AFY to 286,200 AFY. LADWP anticipates that this increase will be due, in part, to implementation of the Owens Lake Master Plan Project which will allow for the conservation of 20,000 AFY of LADWP LAA supply currently used

[37] *LADWP, Water Supply Assessment for the Angels Landing Project, April 28, 2020.*

for dust suppression at the Owens Lake Playa through use instead of waterless dust mitigation measures.[38]

(b) Groundwater

LADWP pumps groundwater from three adjudicated basins, including the San Fernando, Sylmar, and Central Basins.

The San Fernando Basin (SFB) is the largest of the four basins. LADWP has accumulated 554,500 acre-feet of stored groundwater in the SFB as of October 1, 2017 (the latest year for which data is available).[39] This water can be withdrawn from the basin during normal and dry years or in an emergency, in addition to LADWP's approximately 87,000 AFY entitlement in the basin. The City's current annual entitlement in the Sylmar Basin is 3,570 acre-feet. LADWP's annual entitlement in the Central Basin is 17,236 acre-feet.[40]

As shown in Table IV.J.1-3 on page IV.J.1-21, the City extracted 36,871 acre-feet, 5, and 1 acre-feet of groundwater from the San Fernando, Central and Sylmar Basins, respectively, during the 2018-2019 fiscal year. The City plans to continue to develop production from its groundwater basins in the coming years to offset reductions in imported supplies. However, extraction from the basins may be limited by water quality, sustainable pumping practices, and groundwater elevations.[41]

Both LADWP and DWR have programs in place to monitor wells to prevent overdrafting. LADWP's groundwater pumping practice is based on a "safe yield" operation. Furthermore, basin management is achieved by collective efforts of a court-appointed Watermaster and the Upper Los Angeles River Area (ULARA) Administrative Committee of representatives from five public water supply agencies overlying the ULARA Committee. These efforts include operation of groundwater remediation systems, use of an extensive network of groundwater monitoring wells, routine reporting on groundwater elevation and water quality, management and mitigation of urban runoff water quality, and development of enhanced stormwater recharge and groundwater replenishment.[42]

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[38] *LADWP, Water Supply Assessment for the Angels Landing Project, April 28, 2020.*

[39] *LADWP, Water Supply Assessment for the Angels Landing Project, April 28, 2020.*

[40] *LADWP, Water Supply Assessment for the Angels Landing Project, April 28, 2020.*

[41] *LADWP, Water Supply Assessment for the Angels Landing Project, April 28, 2020.*

[42] *LADWP, 2020 Urban Water Management Plan, May 2021.*

Table IV.J.1-3
Local Groundwater Basin Supply

Fiscal Year (July–June)	San Fernando (af)	Sylmar (af)	Central (af)
2014–2015	80,097	1	6,948
2015–2016	75,958	683	8,395
2016–2017	55,116	0	3,005
2017–2018	22,259	0	0.77
2018–2019	36,871	1	5
2019–2020[a]	90,000	4,170	18,500
2024–2025[a]	88,000	4,170	18,500
2029–2030[a]	84,000	4,170	18,500
2034–2035[a]	92,000	4,170	18,500
2039–2040[a]	92,000	3,570	18,500

Units are in acre-feet.

[a] *Projected production: LADWP, 2015 UWMP, Exhibit 6I.*

Source: LADWP, Water Supply Assessment for the Angels Landing Project, April 28, 2020

(c) Metropolitan Water District of Southern California

MWD is the largest water wholesaler for domestic and municipal uses in Southern California. MWD imports a portion of its water supplies from Northern California through the SWP's California Aqueduct and from the Colorado River through MWD's own Colorado River Aqueduct. As one of the 26 member agencies of MWD, LADWP purchases water from MWD to supplement LADWP water supplies from the LAA and local groundwater. As of June 30, 2019, LADWP has a preferential right to purchase 18.25 percent of MWD's total water supply.[43]

The Sustainable City pLAn, discussed above, called for a reduction in purchased imported water by 50 percent by 2025 from the Fiscal Year 2013–2014 level, which was approximately 441,870 acre-feet.[44] L.A.'s Green New Deal also reaffirms this initiative.[45] To meet these targets, LADWP plans to increase conservation, enhance the ability for groundwater pumping through increased stormwater capture projects and groundwater replenishment with highly treated recycled water as well as remediation of contaminated

[43] *LADWP, Water Supply Assessment for the Angels Landing Project, April 28, 2020.*

[44] *LADWP, Water Supply Assessment for the Angels Landing Project, April 28, 2020.*

[45] *City of Los Angeles, L.A.'s Green New Deal, Sustainable City pLAn, 2019.*

groundwater supplies in the San Fernando Basin. LADWP also plans to increase recycled water use for non-potable purposes. With these initiatives and under average hydrologic conditions, LADWP's 2015 UWMP projects MWD purchases to be approximately 65,930 AFY in 2025.[46]

Through continued and additional local supply development and conservation savings, LADWP's reliance on MWD water supplies may be reduced significantly from the five-year average from Fiscal Years 2010–2011 through 2014–2015 of 57 percent of total demand to 11 percent under average weather conditions and to 44 percent under single-dry year conditions by fiscal year 2040.[47]

As indicated in Table IV.J.1-2 on page IV.J.1-19, LADWP received approximately 101,722 acre-feet of water from MWD in 2019, which was a substantial reduction from previous years. Summaries of MWD's individual supplies, along with each supply's challenges and specific responsive actions taken by MWD, are presented below.

(i) State Water Project

MWD imports water from the SWP, owned by the state of California and operated by DWR. The SWP is a water storage and delivery system of pump stations, reservoirs, aqueducts, tunnels, and power plants. The main purpose of the SWP is to divert and store surplus water during wet periods and distribute it to areas throughout the State. Other purposes of the SWP include flood control, power generation, recreation, fish and wildlife protection, and water quality management in the Sacramento–San Joaquin River Delta. The SWP transports Feather River water stored in and released from Oroville Dam and conveyed through the Bay-Delta, as well as unregulated flows diverted directly from the Bay-Delta south via the California Aqueduct to four delivery points near the northern and eastern boundaries of MWD's service area.

MWD began receiving water from the SWP in 1972. MWD is the largest of the 29 SWP contractors, holding a contract for 1.912 million acre-feet (MAF) per year, or 46 percent of the total contracted amount of the 4.173 MAF ultimate delivery capacity of the project. Variable hydrology, environmental issues, and regulatory restrictions in the San Francisco Bay/Sacramento-San Joaquin River Delta (Bay-Delta) have periodically reduced the quantity of water that the SWP delivers to MWD.[48]

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[46] *LADWP, Water Supply Assessment for the Angels Landing Project, April 28, 2020.*

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

[48] *LADWP, Water Supply Assessment for the Angels Landing Project, April 28, 2020.*

The SWP, under the original contracted amount at 100-percent allocation, provides MWD with 1,911,500 acre-feet of water each calendar year.[49] However, due to water quality and supply reliability challenges and conflicts due to variable hydrology and environmental standards that limit pumping operations, SWP deliveries in the most critically dry years have varied. For 2019, DWR estimated an initial allocation of 10 percent[50] but increased the allocation to 15 percent[51] by January 25 due to changes in precipitation and available water supplies.

Challenges to State Water Project Supply

Litigation and various regulations have created challenges for the SWP.[52] In particular, the listing of several fish species in the Delta as threatened or endangered under the federal and/or California Endangered Species Acts (ESA/CESA) has constrained SWP operations and created more uncertainty in SWP supply reliability. Based on DWR's 2015 *State Water Project Delivery Capability Report*, future SWP deliveries will continue to be impacted by restrictions on SWP and Central Valley Project Delta pumping, and climate change, which is altering the hydrologic conditions in the State.[53]

(ii) Colorado River Aqueduct

MWD owns and operates the Colorado River Aqueduct, which has delivered water from the Colorado River to Southern California since 1942. The Colorado River currently supplies approximately 17 percent of Southern California's water needs, and on average makes up about 15 percent of LADWP's purchases from MWD. MWD has a legal entitlement to receive water from the Colorado River under a permanent service contract with the Secretary of the Interior. California is apportioned the use of 4.4 million acre-feet of water from the Colorado River each year plus one-half of any surplus that may be available for use collectively in Arizona, California, and Nevada. In addition, California has historically been allowed to use Colorado River water apportioned to, but not used by, Arizona or Nevada.[54]

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[49] *LADWP, Water Supply Assessment for the Angels Landing Project, April 28, 2020.*

[50] *California Department of Water Resources, Notice to State Water Project Contractors, Number 18-06, 2019 State Water Project Initial Allocation—10 Percent.*

[51] *California Department of Water Resources, Notice to State Water Project Contractors, Number 19-03, 2019 State Water Project Allocation Increase—15 Percent.*

[52] *LADWP, Water Supply Assessment for the Angels Landing Project, April 28, 2020.*

[53] *California Department of Water Resources, The State Water Project—Final Delivery Capability Report 2015, July 2015.*

[54] *LADWP, Water Supply Assessment for the Angels Landing Project, April 28, 2020.*

Since 2003, due to increased consumption, there has been no such unused, apportioned water available to California. Of the California apportionment, MWD holds the fourth priority right to 550,000 AFY under a 1931 priority system governing allotments to California. This is the last priority within California's basic apportionment of 4.4 million acre-feet. Beyond the basic apportionment, MWD holds the fifth priority right to 662,000 acre-feet of water. Historically, MWD has been able to claim most of its legal entitlement of Colorado River water and could divert over 1.2 million acre-feet in any year, but persistent drought conditions since 1999 have contributed to a decrease in these claims. The recent 16-year drought has been so severe that it has resulted in major reductions in water deliveries from the Colorado River. In response, the federal government, states and urban and agricultural water districts that depend on the Colorado River worked together toward a solution.[55] MWD's total supply from the Colorado River Aqueduct in 2020 is at approximately 1.5 million acre-feet.[56]

Management of Colorado River Supply

There are various agreements and guidelines that affect the management of Colorado River water supplies, and MWD has taken steps to augment its share of Colorado River water supplies by entering into agreements with other agencies that have rights to use such water.[57] Specifically, under a 1988 water conservation agreement between MWD and the Imperial Irrigation District, MWD provided funding for the Imperial Irrigation District to construct and operate a number of conservation projects that are currently conserving up to 109,460 acre-feet of water per year that is provided to MWD.[58] In addition, in August 2004, MWD and the Palo Verde Irrigation District signed an agreement for a Land Management, Crop Rotation and Water Supply Program, which provides up to 133,000 acre-feet of water to be available to MWD in certain years. Furthermore, in May 2008, MWD joined the Central Arizona Water Conservation District and the Southern Nevada Water Authority in funding the Warren H. Brock Reservoir, which conserves approximately 70,000 AFY of water. MWD is also participating in numerous pilot programs to augment its water supplies. Other agreements and guidelines that continue to affect the management of water supplies from the Colorado River include the Quantification Settlement Agreement, executed in October 2003, and the Transfer Agreement executed in 1998. Additional guidelines and programs that influence management of the Colorado River water supplies include the Interim Surplus Guidelines, the Lower Basin Shortage Guidelines and Coordinated Management Strategies for Lake Powell and Lake Mead, the Intentionally Created Surplus Program, and the Quagga Mussel Control Program.

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[55] *LADWP, Water Supply Assessment for the Angels Landing Project, April 28, 2020.*

[56] *LADWP, Water Supply Assessment for the Angels Landing Project, Table V, April 28, 2020.*

[57] *LADWP, Water Supply Assessment for the Angels Landing Project, April 28, 2020.*

[58] *Metropolitan Water District of Southern California, 2015 Urban Water Management Plan, June 2016.*

(iii) Additional MWD Actions to Address Supply

MWD has been developing plans and making efforts to provide additional water supply reliability for the entire Southern California region. LADWP coordinates closely with MWD to ensure implementation of these water resource development plans. MWD's long-term plans to meet its member agencies' growing reliability needs are through: improvements to SWP as outlined in the EcoRestore plans, conjunctive management efforts on the Colorado River, water transfer programs, outdoor conservation measures, and development of additional local resources, such as recycling, brackish water desalination, and seawater desalination.[59]

Additionally, MWD has more than 5.0 million acre-feet of storage capacity available in reservoirs and banking/transfer programs. MWD was estimated to have 3.1 million acre-feet of water in Water Surplus Drought Management storage and additional 750,000 acre-feet in emergency storage as of January 1, 2020. Continued efficiency in the region kept demands low in 2019, resulting in available water supplies far exceeding demands. With implementation of new and modified existing storage programs to manage the available surplus supplies, MWD was able to add to storage in 2019. MWD began CY 2020 with approximately 3.1 million acre-feet of water in its dry-year storage portfolio.[60]

MWD's 2015 IRP builds upon the strong foundation of diversification and adaptation developed in previous IRPs. The 2015 IRP reinforces MWD commitment to meeting the region's water supply needs through an evolving long-term strategy that calls for maintaining and stabilizing existing resources along with developing more conservation and new local supplies.[61]

MWD's 2015 UWMP reports on water reliability and identifies projected supplies to meet the long-term demand within MWD's service area. As reported in its 2015 UWMP, MWD has supply capabilities that would be sufficient to meet expected demands from 2020 through 2040 under average year, single dry-year and multiple dry-year hydrologic conditions.[62]

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[59] *LADWP, Water Supply Assessment for the Angels Landing Project, April 28, 2020.*

[60] *LADWP, Water Supply Assessment for the Angels Landing Project, April 28, 2020.*

[61] *LADWP, Water Supply Assessment for the Angels Landing Project, April 28, 2020.*

[62] *LADWP, Water Supply Assessment for the Angels Landing Project, April 28, 2020.*

(d) Precipitation Conditions

The City of Los Angeles receives an average of 14.67 inches of precipitation per year according to the National Weather Service.[63] During the 2020-2021 rain season (extending from July 1, 2020, to June 30, 2021), Downtown Los Angeles received 5.82 inches of precipitation.[64]

(e) Global Warning and Climate Change

As discussed in the LADWP's 2020 UWMP, generally speaking, any water supplies that are dependent on natural hydrology are vulnerable to climate change, especially if the water source originates from mountain snowpack. For LADWP, the most vulnerable water sources subject to climate change impacts are imported water supplies from MWD and the LAA, though local sources can also expect to see some changes in the future. In addition to water supply impacts, changes in local temperature and precipitation are expected to alter water demand patterns. However, there is still general uncertainty within the scientific community regarding the potential impacts of climate change within the City. LADWP continues to monitor the latest developments in scientific knowledge and will continue to assess future research for the potential impacts of climate change on its water resources.[65]

MWD and DWR also continue to study climate change and address the implications of climate change on water supplies. MWD has established a technical process to identify key vulnerabilities from various sources, including climate change, in order to provide comprehensive analyses within its Integrated Water Resources Plans. In addition, DWR addresses climate change impacts on water supply in its California Water Plan Updates, which also account for uncertainty, risk, and sustainability in planning for the future.[66] With updates published every five years, the most recent *California Water Plan Update 2018* built on its predecessor by identifying specific performance tracking metrics, recommending financing methods with stable revenues, and incorporating principles of sustainability.[67]

DWR has also been in the process of completing its Climate Action Plan since 2012. Phases I and II of the Climate Action Plan include the guidance of DWR in reducing

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[63] *Los Angeles Almanac, Total Seasonal Rainfall (Precipitation) Downtown Los Angeles—USC Campus, www.laalmanac.com/weather/we13.php, accessed January 25, 2022.*

[64] *Los Angeles Almanac, Total Seasonal Rainfall (Precipitation) Downtown Los Angeles—USC Campus, www.laalmanac.com/weather/we13.php, accessed January 25, 2022.*

[65] *LADWP, 2020 Urban Water Management Plan, May 2021, p. 12-1.*

[66] *California Department of Water Resources, California Water Plan Update 2013, Investing in Innovation & Infrastructure, Highlights, October 2014.*

[67] *California Department of Water Resources, California Water Plan Update 2018, https://water.ca.gov/Programs/California-Water-Plan/Update-2018, accessed June 5, 2020.*

greenhouse gas emission and the expertise of a climate change technical advisory group formed in 2012, respectively. Phase III of the plan was completed in 2017 with a vulnerability assessment and adaptation plan DWR assets and activities, as related to the projected changes in temperature, wildfire, sea level rise, hydrology, and water supply.[68] As such, climate change and its impacts on water supplies are key factors of new water supply regulations and urban water management plans.

(f) Water Conservation and Recycling

LADWP's 2020 UWMP details the City's efforts to promote the efficient use and management of its water resources and provides the basic policy principles that guide LADWP's decision-making process to secure a sustainable water supply for the City of Los Angeles in the next 25 years. To meet multiple water conservation goals established in ED 5, the Sustainable City pLAn, and the Water Conservation Act of 2009, LADWP's 2020 UWMP aims to reduce per capita potable water use by 22.5 percent by 2025 and by 25 percent by 2035.[69] Following the target reduction of potable water use per capita by 25 percent by 2035, L.A.'s Green New Deal adds an additional target for the City to maintain or reduce 2035 per capita water use through 2050.[70] The City also intends to build upon the success of Save the Drop and develop additional water conservation campaigns; continue benchmarking customer use and recognizing innovative water reduction initiatives; improve data gathering to identify program effectiveness; expand top performing conservation incentive programs for landscape transformation, washing machines, etc.; and expand sub-metering and evaluate smart water meter technologies.

Further, based on LADWP's 2020 UWMP, recycled water use is projected to reach 24,300 AFY by 2025 and further increase to 41,000 AFY by 2045.[71] Overall, due to delays with the signing up projected recycled water customers, the 2020 LADWP UWMP reports a 28 percent lower recycled water trend for municipal and industrial uses along with environmental uses than what was projected in the previous 2015 UWMP.[72] In addition, based on programs and improvements contemplated in the 2020 LADWP UWMP, locally developed water supplies will increase from the current 11 percent to 48 percent in dry years, or to 43 percent in average years by 2045.[73] L.A.'s Green New Deal also has a

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[68] *California Department of Water Resources, DWR Climate Action Plan, www.water.ca.gov/Programs/All-Programs/Climate-Change-Program/Climate-Action-Plan, accessed June 5, 2020.*

[69] *LADWP, 2020 Urban Water Management Plan, May 2021.*

[70] *City of Los Angeles, L.A.'s Green New Deal, Sustainable City pLAn, 2019.*

[71] *LADWP, 2020 Urban Water Management Plan, May 2021.*

[72] *LADWP, 2020 Urban Water Management Plan, May 2021.*

[73] *LADWP, 2020 Urban Water Management Plan, May 2021.*

target to recycle 100 percent of all wastewater for beneficial reuse by 2035.[74] Beneficial reuse includes, but is not limited to, non-potable reuse, groundwater recharge, and supporting environmental and recreational uses such as those in the L.A. River.

(2) Water Demand

(a) Regional Water Demand

LADWP's 2020 UWMP provides water supply and demand projections in five-year increments to 2045, based on projected population estimates provided by SCAG in its 2020-2045 RTP/SCS). Table IV.J.1-4 on page IV.J.1-29 shows the projected water demand from the year 2025 through 2045 for the City.

As shown in Table IV.J.1-4, in 2045 during average year hydrological conditions, the City's water demand is forecasted to be approximately 710,500 AFY (with passive water conservation).[75] LADWP's 2020 UWMP concludes that adequate water supplies would be available to meet the projected demands of the service areas under normal, single-dry, and multi-dry year conditions through 2045.[76] Therefore, the City's water supply projections in LADWP's 2020 UWMP are sufficient to meet the water demand for projects that are determined by the CEQA lead agency to be consistent with the 2020-2045 RTP/SCS adopted by SCAG.

(b) On-Site Water Demand

As discussed in Section II, Project Description, of this Draft EIR, the Project Site is currently occupied by two one-story buildings totaling 10,993 square feet, comprised of a 2,551 square foot restaurant and 8,442 square foot studio and production space, along with surface parking areas. Landscaping within the Project Site is limited to one ornamental tree, grasses, and shrubs. According to the Water Utility Report, included as Appendix M of this Draft EIR, the existing water demand at the Project Site is currently 3.83 AFY (3,422 gpd).[77]

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[74] *Baseline from LASAN: In Fiscal Year 2017–2018, 27 percent of wastewater was recycled.*

[75] *LADWP, 2020 Urban Water Management Plan, May 2021.*

[76] *LADWP, 2020 Urban Water Management Plan, May 2021.*

[77] *LFA Consulting Engineers, 1000 Seward Mixed-Use Project Utility Infrastructure Technical Report: Water, April 2021, page 3. Refer to Appendix M of this Draft EIR.*

Table IV.J.1-4
City of Los Angeles Water Demand Projections
(thousand AFY)

Hydrologic Conditions	Year				
	2025	2030	2035	2040	2045
Average Year	642.6	660.2	678.8	697.8	710.5
Single Dry Year (FY 2014–2015)	674.7	693.2	712.7	732.7	746
Multi-Dry Year (FY 2011–2015)	662.3	680.4	699.6	719.2	732.3

AFY = acre-feet per year

Source: LADWP, 2020 Urban Water Management Plan, Exhibits 11E, 11F, and 11G.

(3) Water Infrastructure

Water infrastructure in the vicinity of the Project Site is maintained and operated by LADWP. LADWP ensures the reliability and quality of its water supply through an extensive distribution system that includes 117 storage tanks and reservoirs, 84 pump stations, 7,326 miles of distribution mains and trunk lines within the City, and a total storage capacity of 311,000 acre-feet according to the estimates for Fiscal Year 2018–2019.[78] Much of the water flows north to south, entering Los Angeles at the LAA Filtration Plant in Sylmar, which is owned and operated by LADWP. Water entering the LAA Filtration Plant undergoes treatment and disinfection before being distributed throughout the LADWP's water service area.[79]

Domestic water service is available to the Project Site via LADWP water lines within the adjacent streets. According to the Water Utility Report included in Appendix M of this Draft EIR, there are 8-inch water mains in Seward Street, Romaine Street, and Hudson Avenue.[80] Although the Project Site is currently served by the adjacent mains, there are no laterals or meters that are shown on the record drawings.[81]

In addition to providing domestic water service, LADWP provides water for fire protection services in accordance with the City's Fire Code (LAMC Chapter V, Article 7).

[78] *LADWP, 2018-2019 Briefing Book, June 2019.*

[79] *LADWP, 2015 Urban Water Management Plan, June 2016.*

[80] *LFA Consulting Engineers, 1000 Seward Mixed-Use Project Utility Infrastructure Technical Report: Water, April 2021, page 3. Refer to Appendix M of this Draft EIR.*

[81] *LFA Consulting Engineers, 1000 Seward Mixed-Use Project Utility Infrastructure Technical Report: Water, April 2021, page 4. Refer to Appendix M of this Draft EIR.*

As discussed in the Water Utility Report, there are existing fire hydrants on the southwest corner of Romaine Street and Hudson Avenue, and the northwest corner of Seward Street and Romaine Street. Additional fire hydrants are located in the greater vicinity of the Project Site.[82]

3. Project Impacts

a. Thresholds of Significance

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

Threshold (a): Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects.[83]

Threshold (b): (Not) Have sufficient 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 listed above 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 *L.A. CEQA Thresholds Guide* identifies the following factors to evaluate water supply and infrastructure:

- 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;

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[82] *LFA Consulting Engineers, 1000 Seward Mixed-Use Project Utility Infrastructure Technical Report: Water, April 2021, page 4. Refer to Appendix M of this Draft EIR.*

[83] *Refer to Section IV.C, Energy, of this Draft EIR for a discussion of electric power and natural gas impacts. Refer to the Initial Study included as Appendix A of this Draft EIR for a discussion of stormwater, wastewater, and telecommunications facility impacts.*

- 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

The analysis of the Project's impact relative to water supply is based on a calculation of the Project's anticipated net water demand. Consistent with LADWP's methodology, the estimated net water demand for the Project is calculated by applying the City of Los Angeles Bureau of Sanitation's (LASAN) sewer generation factors to the Project's proposed uses. The water demand of the existing uses to be removed was then subtracted from the Project's total water demand to determine the Project's net water demand. The resulting net demand for water associated with the Project is then analyzed relative to LADWP's existing and future water supplies to determine if LADWP would be able to accommodate the Project's water demands during average, single-dry, and multiple-dry years hydrologic conditions. The Project proposes 136,200 square feet of office uses, 12,200 square feet of restaurant uses (of which 6,100 square feet may be used for an entertainment use), and 2,200 square feet of retail uses. As such, the Project does not meet the specific size criteria in SB 610 and a WSA was not required.

The analysis of the Project's impacts to water infrastructure is based on the Water Utility Report prepared for the Project included as Appendix M of this Draft EIR. The Water Utility Report includes a comparison of the estimated net domestic and fire flow water demand for the Project to the available capacity of the existing water infrastructure.[84] Specifically, the Water Utility Report summarizes the results of the following LADWP performed analyses:

1. A hydraulic analysis of the water system to determine if adequate fire flow (which requires more water volume and pressure than domestic flow) is available from the existing fire hydrants surrounding the Project Site. LADWP's approach consisted of modeling the portion of their water system in the vicinity of the Project Site. Based on the results, LADWP determined whether their existing water infrastructure can meet the Project's fire hydrant flow needs. See Exhibit 1 of the Water Utility Report for the results of the Information of Fire Flow Availability Request (IFFAR).

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[84] *LFA Consulting Engineers, 1000 Seward Mixed-Use Project Utility Infrastructure Technical Report: Water, April 2021, page 5. Refer to Appendix M of this Draft EIR.*

2. Flow tests to determine if sufficient water conveyance is available for the Project. LADWP's approach provides data ranging from available static pressure (meaning how much pressure is available at the source before applying the Project's demand) to the available pressure at the maximum demand needed for the Project. Based on the results, LADWP determined whether they can meet the Project needs based on existing infrastructure. See Exhibit 2 of the Water Utility Report for the results of the Service Advisory Requests (SARs) for the Seward Street, Romaine Street, and Hudson Avenue water mains, respectively.

c. Project Design Features

The following water supply and infrastructure-related project design feature is proposed as part of the Project:

Project Design Feature WAT-PDF-1: The Project design will incorporate the following water conservation features to support water conservation in addition to those measures required by the City's current codes and ordinances:

- High-Efficiency Toilets with a flush volume of 1.0 gallon per flush.
- High-efficiency Energy Star–rated commercial dishwashers.
- Domestic Water Heating System located in close proximity of point(s) of use.
- Individual metering and billing for water use for every commercial unit.
- Drip/Subsurface Irrigation (Micro-Irrigation).
- Proper Hydro-Zoning/Zoned Irrigation (groups plants with similar water requirements together).
- Drought-Tolerant Plants.

d. Analysis of Project Impacts

Threshold (a): Would the Project require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?[85]

[85] *Refer to Section IV.C, Energy, of this Draft EIR for a discussion of electric power and natural gas impacts. Refer to the Initial Study included as Appendix A of this Draft EIR for a discussion of stormwater, wastewater, and telecommunications facility impacts.*

(1) Impact Analysis

(a) Construction

As discussed in the Water Utility Report included as Appendix M of this Draft EIR, Project construction activities would require water for dust control, cleaning of equipment, excavation/export, removal and re-compaction, etc. Based on a review of construction projects of similar size and duration, a conservative estimate of Project water use during construction ranges from 1,000 to 2,000 gallons per day (gpd).[86] Prior to buildout of the required new on-site water distribution system, and of the connections required between this on-site system and the existing water mains in the adjacent streets, temporary water supply needs during construction would be obtained from the existing fire hydrants in the area. Because the existing Seward Street, Romaine Street, and Hudson Avenue water mains feeding these hydrants each have the capacity to provide 2,500 gpm (see the SARs, Exhibit 2 of the Water Utility Report), there is adequate existing water infrastructure to meet the limited and temporary water demand associated with Project construction activities.[87]

The Project would require construction of new, on-site water distribution lines to serve the new building. Such improvements/activities would require limited and temporary trenching on-site and within the adjacent sidewalks and streets during the infrastructure phase of construction. However, the environmental effects associated with the required on-site trenching are already subsumed in the impact analysis in the other sections of this Draft EIR, and the environmental effects with the limited and temporary off-site trenching would be less than significant both due to the limited scope of the trenching activities and the location of these activities within already developed area. In addition, 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, and LADWP would review and approve all appropriate connection requirements, pipe depths, and connection location(s).

Furthermore, while trenching and installation activities could temporarily affect traffic flow and access on the adjacent streets and sidewalks, a Construction Traffic Management Plan would be implemented pursuant to Project Design Feature TR-PDF-2 as discussed in Section IV.H, Transportation, of this Draft EIR. This Construction Traffic Management Plan, which would be reviewed and approved by the Los Angeles Department of Transportation (LADOT), would ensure the safe and efficient flow of vehicular and

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[86] *LFA Consulting Engineers, 1000 Seward Mixed-Use Project Utility Infrastructure Technical Report: Water, April 2021, page 6. Refer to Appendix M of this Draft EIR.*

[87] *LFA Consulting Engineers, 1000 Seward Mixed-Use Project Utility Infrastructure Technical Report: Water, April 2021, Exhibit 2. Refer to Appendix M of this Draft EIR.*

pedestrian traffic, and that emergency access to the Project Site and adjacent properties is maintained, during the construction period.

Overall, Project construction activities would not require or result in the relocation or construction of new or expanded water facilities, the construction or relocation of which could cause significant environmental effects. Therefore, Project construction-related water infrastructure impacts would be less than significant.

(b) Operation

When analyzing the capacity of the water infrastructure system to serve a project, the estimated operational demands of the project for both fire suppression and domestic water are considered. Although domestic water demand would be the Project's main contributor to water demand in the long term, the Project's fire flow demands have a much greater instantaneous impact on infrastructure and therefore are the primary means for analyzing infrastructure capacity. Conservative analysis for both fire suppression and domestic water flows has been completed by LADWP for the Project as summarized in the Water Utility Report included as Appendix M of this Draft EIR. Specifically, see Exhibit 1 and Exhibit 2 in the Water Utility Report for the results of the IFFAR and SAR, respectively.[88] While the SAR demonstrates that adequate water infrastructure capacity to serve the Project exists, as discussed further below, the IFFAR shows that the required fire-flow is currently inadequate.

(i) Fire Flow

Based on fire flow standards set forth in LAMC Section 57.507.3, LAFD has set the required fire flow for the Project at 12,000 gpm from eight hydrants flowing simultaneously with a residual pressure of 20 psi. This translates to a required fire flow of 1,500 gpm for each hydrant. The completed IFFAR, attached as Exhibit 1 of the Utility Report included as Appendix M of this Draft EIR, shows eight nearby hydrants flowing simultaneously for a combined 11,700 gpm, which does not meet the requirement set by LAFD. Fire hydrant F-35522, which is located on the southwest corner of Seward Street and Eleanor Avenue, is currently connected to a 6-inch water main in Eleanor Avenue. This fire hydrant is currently able to deliver 1,200 gpm rather than the required 1,500 gpm. However, LADWP stated that relocating the fire hydrant connection to the 8-inch water main in Seward Street

[88] *LFA Consulting Engineers, 1000 Seward Mixed-Use Project Utility Infrastructure Technical Report: Water, April 2021, Exhibit 1 and 2. Refer to Appendix M of this Draft EIR.*

would allow the hydrant to produce the required 1,500 gpm.[89] Once the connection has been relocated, fire flow will be sufficient to serve the Project.

In addition, the Project would incorporate a fire sprinkler suppression system to reduce or eliminate the public hydrant demands. Per LAMC 94.2020.0 which adopts by reference NFPA 14-2013 including Section 7.10.1.1.5, the maximum allowable fire sprinkler demand for a fully or partially sprinklered building is 1,250 gpm. The SARs indicate that the 8-inch water mains in Seward Street show a static pressure of 97 pounds per square inch and that a flow of up to 2,500 gpm can be delivered to the Project Site with a residual pressure of 89 pounds per square inch, which exceeds the 20 pounds per square inch requirement for the surrounding public hydrants. The SARs for the other two water mains show similar results.[90]

(ii) Domestic Water Demand

Domestic water demand has been estimated based on LASAN sewage generation factors. As discussed further under Threshold (b) below, the Project would generate a net increase in water demand of 28,847 gpd.[91] The Project proposes to connect to the existing 8-inch main in Romaine Street for the domestic service. The approved SARs confirm that sufficient capacity exist in the Seward Street, Romaine Street, and Hudson water mains to serve the Project.[92]

(c) Conclusion

Based on the above, the Project would not exceed the available capacity of the existing water infrastructure that would serve the Project Site, and new or expanded water facilities would not be required. Accordingly, Project operation would not require or result in the relocation or construction of new or expanded water facilities, the construction or relocation of which could cause significant environmental effects. Project operations-related water infrastructure impacts would thus be less than significant.

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[89] *LFA Consulting Engineers, 1000 Seward Mixed-Use Project Utility Infrastructure Technical Report: Water, April 2021, page 7. Refer to Appendix M of this Draft EIR.*

[90] *LFA Consulting Engineers, 1000 Seward Mixed-Use Project Utility Infrastructure Technical Report: Water, April 2021, page 7. Refer to Appendix M of this Draft EIR.*

[91] *LFA Consulting Engineers, 1000 Seward Mixed-Use Project Utility Infrastructure Technical Report: Water, April 2021, page 8. Refer to Appendix M of this Draft EIR.*

[92] *LFA Consulting Engineers, 1000 Seward Mixed-Use Project Utility Infrastructure Technical Report: Water, April 2021, page 8. Refer to Appendix M of this Draft EIR.*

(2) Mitigation Measures

Project-level impacts with regard to water infrastructure would be less than significant. Therefore, no mitigation measures are required.

(3) Level of Significance After Mitigation

Project-level impacts related to water infrastructure were determined to be less than significant without mitigation. Therefore, no mitigation measures were required, and the impact level remains less than significant.

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

(1) Impact Analysis

(a) Construction

Construction activities for the Project would result in a temporary demand for water associated with dust control, equipment and site cleanup, excavation and export, soil compaction and earthwork, mixing and placement of concrete, irrigation for plant and landscaping establishment, testing of water connections and flushing, and other short-term related activities. These activities would occur incrementally throughout construction of the Project (from the start of construction in 2022 to Project buildout in 2025). The amount of water used during construction would vary depending on soil conditions, weather, and the specific activities being performed. However, given the temporary nature of construction activities and the short-term and intermittent water use during construction of the Project, the anticipated water demand during construction would be less than the 28,847 gpd of the Project's net new water consumption at buildout provided in Table IV.J.1-5 on page IV.J.1-37. Furthermore, as concluded in LADWP's 2020 UWMP, projected water demand for the City would be met by the available supplies during all hydrologic conditions (average year, single-dry year, and multiple-dry year) in each year from 2025 through 2045, in addition to the existing and planned future water demands within LADWP's service area through the year 2045. Therefore, the Project's temporary and intermittent demand for water during construction could be met by the City's available supplies during each year of Project construction.

Based on the above, LADWP would have sufficient water supplies available to serve the Project's construction activities and reasonably foreseeable future development during normal, dry, and multiple dry years. Therefore, Project construction-related water supply impacts would be less than significant.

Table IV.J.1-5
Estimated Project Water Demand

Propose Land Use	Size	Water Demand Rate[a]	Water Demand (gpd)
Existing to Be Removed			
Studio and Production Space	8,442 sf	0.05 gpd/sf	422
Restaurant	100 seats	30 gpd/seat	3,000
To Be Removed			***3,422***
Proposed			
Office	136,200 sf	0.12 gpd/sf	16,344
Retail	2,200 sf	0.025 gpd/sf	55
Restaurant (new)	529 seats	30 gpd/seat	15,870
Proposed Water Demand			32,269
Net Project Water Demand			**28,847**

sf = square feet

gpd = gallons per day

[a] *Based on 100 percent of sewage generation rates provided by LASAN (effective April 6, 2012)*.

Source: LFA Consulting Engineers, 1000 Seward Mixed-Use Project Utility Infrastructure Technical Report: Water, April 2021, page 8. Refer to Appendix M of this Draft EIR.

(b) Operation

As described in Section II, Project Description, of this Draft EIR, the Project would develop new office, restaurant, and retail uses totaling 150,600 square feet. Specifically, the Project would demolish both existing buildings on the Project Site and develop 136,200 square feet of office uses, 12,200 square feet of restaurant uses (of which 6,100 square feet may be used for an entertainment use), and 2,200 square feet of retail uses. Based on the size of these land uses and the Project's resulting estimated water demand, the Project is not subject to the requirements of SB 610 (preparation of a water supply assessment, as described in Section 2.a(1)(a) on page IV.J.1-2).

Development of the Project would result in an increase in long-term water demand for consumption, operational uses, maintenance, and other activities on the Project Site. Consistent with LADWP's methodology, the analysis of the Project's impacts relative to water supply is based on a calculation of the Project's water demand by applying the sewage generation factors established by LASAN, which also serve to estimate water demand to the proposed uses.

As shown in Table IV.J.1-5 on page IV.J.1-37, assuming constant water use throughout the year, the Project would result in a net average daily water demand of 28,847 gallons per day, or approximately 32.31 acre-feet per year.

In addition, the 2020 UWMP utilized SCAG's 2020-2045 RTP/SCS data that provide for more reliable water demand forecasts, taking into account changes in population, housing units and employment. As the Project does not include residential uses, it would not represent any of the population growth in the SCAG region.

Lastly, as outlined in its 2020 UWMP, LADWP is committed to providing a reliable water supply for the City.[93] The 2020 LADWP UWMP takes into account the realities of climate change and the concerns of drought and dry weather and notes that the City of Los Angeles will meet all new demand for water due to projected population growth through a combination of water conservation and water recycling.[94] The 2020 LADWP UWMP also furthers the goals of the City's ED 5 and Sustainable City pLAn, addresses the current and future SWP supply shortages, and concludes that MWD's actions in response to the threats to the SWP will ensure continued reliability of its water deliveries.[95] By focusing on demand reduction and alternative sources of water supplies, LADWP will further ensure that long-term dependence on MWD supplies will not be exacerbated by potential future shortages.[96] Additionally, as reaffirmed by L.A.'s Green New Deal, the City is committed to conserving and recycling water to help meet future water demands in the City.[97]

Based on the above, LADWP would have sufficient water supplies available to serve the Project and reasonably foreseeable future development during normal, dry, and multiple dry years. Therefore, the Project's operation-related water supply impacts would be less than significant.

(2) Mitigation Measures

Project-level impacts with regard to water supply would be less than significant. Therefore, no mitigation measures are required.

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93 *LADWP, 2020 Urban Water Management Plan, May 2021.*

94 *LADWP, 2020 Urban Water Management Plan, May 2021.*

95 *LADWP, 2020 Urban Water Management Plan, May 2021.*

96 *LADWP, 2020 Urban Water Management Plan, May 2021.*

97 *City of Los Angeles, L.A.'s Green New Deal, Sustainable City pLAn, 2019.*

(3) Level of Significance After Mitigation

Project-level impacts related to water supply were determined to be less than significant without mitigation. Therefore, no mitigation measures were required, and impact level remains less than significant.

e. Cumulative Impacts

(1) Impact Analysis

(a) Water Infrastructure

The geographic context for the cumulative impact analysis on water infrastructure is the vicinity of the Project Site (i.e., the area served by the same water infrastructure as the Project). Development of the Project and the cumulative or related projects within this geographic area would cumulatively increase demands on the existing water infrastructure system. However, as with the Project, the related projects would be subject to LADWP review (e.g., preparation of a SAR and IFFAR) to ensure that the existing water infrastructure is adequate to meet the domestic and fire water demands of each project and would be required to provide water infrastructure improvements to serve the project if the existing infrastructure is inadequate. In addition, to ensure its infrastructure is sufficient to meet ongoing demand, LADWP will continue to implement and update its Water Infrastructure Plan (WIP), with the current (2018-2019) WIP containing a five-year water system capital improvement plan that includes $6.3 billion for needed water system infrastructure improvements and maintenance.[98] Furthermore, in accordance with City requirements, prior to ground disturbance, the related projects would be required to coordinate with LADWP to identify the locations and depths of all lines, and LADWP would be notified in advance of proposed ground disturbance activities to avoid disruption of water service associated with the related projects. LADWP would also review and approve all appropriate connection requirements, pipe depths, and connection location(s) associated with the related projects.

Like the Project, off-site connection activities and infrastructure improvements associated with the related projects could temporarily affect access in adjacent rights-of-way. However, as with the Project, the related projects would be required to implement a Construction Traffic Management Plan to ensure that adequate and safe access remains available within and near the related project sites during construction activities. As part of the Construction Traffic Management Plan, appropriate construction traffic control measures (e.g., detour signage, delineators, etc.) would also be implemented, as

[98] *LADWP, 2018-2019 Water Infrastructure Plan.*

necessary, to ensure emergency access to the related project sites and traffic flow is maintained on adjacent rights-of-way.

Based on the above, the Project together with the related projects would not result in significant cumulative water infrastructure impacts related to the construction or expansion water facilities, nor would the Project contribute considerably to cumulative water infrastructure impacts. As such, cumulative water infrastructure impacts would be less than significant.

(b) Water Supply

The geographic context for the cumulative impact analysis on water supply is the LADWP service area (i.e., the City and portions of the cities of West Hollywood, Culver City, South Pasadena, and the Owens Valley). As discussed above, LADWP, as a public water service provider, is required to prepare and periodically update its Urban Water Management Plan to plan and provide for the water supplies required to serve existing and projected demands within its service area. LADWP's 2020 UWMP accounts for existing development within the City, as well as projected growth through the year 2045.[99]

As identified in Section III, Environmental Setting, of this Draft EIR, there are 16 related projects located in the vicinity of the Project Site, all of which are located within the LADWP service area. In addition, Related Project No. 17, the Hollywood Community Plan Update, is identified. The estimated water demand of these related projects is shown in Table IV.J.1-6 on page IV.J.1-41. As indicated therein, the related projects would generate a total average water demand of approximately 473,976 gpd (530.92 AFY). Together with the approximately 28,847 gpd (32.31 AFY) net new demand from the Project, total cumulative water demand would be approximately 502,823 gpd (563.23 AFY). These estimates are conservative because, while the water demand estimates for the Project take into account required and proposed water conservation measures, the estimates for the related projects do not.

The total water demand of the Project and related projects of approximately 563.23 AFY would represent approximately 0.12 percent[100] of LADWP's 2019 water supply of 480,539 AF, with the Project's share of 32.31 AFY representing approximately 0.007 percent[101] of LADWP's 2019 water supply.[102]

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[99] *LADWP, 2020 Urban Water Management Plan, May 2021.*

[100] *(563.23 AFY ÷ 480,539 AFY) x 100 = 0.12%*

[101] *(32.31 AFY ÷ 480,539 AFY) x 100 = 0.007%*

[102] *2019 is the most current data available.*

Table IV.J.1-6
Cumulative Water Demand

No.	Project	Land Use	Size	Generation Factor[a,b]	Total Water Demand (gpd)
1	Seward Street Office Project 956 N. Seward St.	Office	126,980 sf	0.12 gpd/sf	15,238
2	Hollywood Center Studios 6601 W. Romaine St.	Office	106,125 sf	0.12 gpd/sf	12,735
3	Hollywood 959 959 N. Seward St.	Office	241,568 sf	0.12 gpd/sf	28,988
4	The Lexington Mixed-Use 667 W. Santa Monica Blvd.	Apartments	695 du	190 gpd/du	132,050
		Commercial	24,900 sf	0.05 gpd/sf	1,245
5	McCadden Campus (LGBT)	LGBT Center	[c]	[c]	29,370
6	Mixed-Use 901 N. Vine St.	Apartments	70 du	190 gpd/du	13,300
		Commercial	3,000 sf	0.05 gpd/sf	150
7	Residential 712 N. Wilcox Ave.	Apartments	103 du	190 gpd/du	19,570
8	Hotel 1133 N. Vine St.	Hotel	112 rooms	120 gpd/room	13,440
		Café	33 seats	30 gpd/seat	990
9	2014 Residential 707 N. Cole Ave.	Apartments	84 du	190 gpd/du	15,960
10	Mixed-Use 1310 N. Cole Ave.	Apartments	369 du	190 gpd/du	70,110
		Office	2,570 sf	0.12 gpd/sf	308
11	Archstone Hollywood Mixed-Use 6901–6911 W. Santa Monica Blvd.	Apartments	231 du	190 gpd/du	43,890
		Restaurant	250 seats	30 gpd/seat	7,500
		Retail	10,000 sf	0.05 gpd/sf	500
12	Mixed-Use 1233 N. Highland Ave.	Apartments	72 du	190 gpd/du	13,680
		Commercial	12,160 sf	0.05 gpd/sf	608
13	Mixed-Use 6535 W. Melrose Ave.	Apartments	33 du	190 gpd/du	6,270
		Restaurant	132 seats	30 gpd/seat	3,960
		Retail	2,321 sf	0.05 gpd/sf	116

Table IV.J.1-6 (Continued)
Cumulative Water Demand

No.	Project	Land Use	Size	Generation Factor[a,b]	Total Water Demand (gpd)
14	926 North Sycamore Office 926 N. Sycamore Ave.	Media Production Office	70,742 sf	0.12 gpd/sf	8,489
15	7007 West Romaine Mixed-Use 7007 W. Romaine St.	Media Office	28,468 sf	0.12 gpd/sf	3,416
		Restaurant	235 seats	30 gpd/seat	7,050
16	1235 Vine Street Project 1235 N. Vine St.	Office	109,190 sf	0.12 gpd/sf	13,103
		Restaurant	398 seats	30 gpd/seat	11,940
17	Hollywood Community Plan Update South of City of Burbank, City of Glendale, and SR 134; west of Interstate 5; north of Melrose Avenue; south of Mulholland Drive, City of West Hollywood, Beverly Hills, including land south of the City of West Hollywood and north of Rosewood Avenue between La Cienega Boulevard and La Brea Avenue.	Updates to the existing land use policies and land use diagram in the Hollywood Community Plan would result in future growth through horizon year 2040.			
Related Projects Water Demand					**473,976**
Project Net Water Demand					**28,847**
Total Water Demand for Related Projects and Project					**502,823**

du = dwelling units

sf = square feet

[a] *The analysis for the City of Los Angeles is based on 100 percent of sewage generation rates provided by LASAN (effective April 6, 2012).*

[b] *This analysis conservatively assumes that all dwelling units are 3-bedroom units.*

[c] *Source: City of Los Angeles, McCadden Project, Draft Environmental Impact Report, June 2016.*

Source: Eyestone Environmental, 2022.

As previously stated, based on water demand projections through 2045 in its 2020 UWMP, LADWP determined that it will be able to reliably provide water to its customers through the year 2045, as well as the intervening years (i.e., 2025, the project buildout year) based on demographic growth projections in SCAG's 2020-2045 RTP/SCS, which includes the Project and likely most of the related projects. In addition, compliance of the Project and other future development projects with the numerous regulatory requirements that promote water conservation described above would also reduce water demand on a cumulative basis. For example, certain related projects would be subject to the City's Green Building Code requirement to reduce indoor water use by at least 20 percent and all projects would be required to use fixtures that conserve water. In addition, certain large related projects meeting the thresholds under SB 610 would be required to prepare and receive LADWP approval of a WSA that demonstrates how the project's water demand would be met.

Overall, as discussed above, the 2020 LADWP UWMP demonstrates that the City will meet all new water demands from projected population growth, through a combination of water conservation and water recycling. LADWP's 2020 UWMP specifically outlined the creation of sustainable sources of water for the City to reduce dependence on imported supplies. LADWP's 2020 UWMP also incorporates the goals of ED 5 and the City's Sustainability pLAn. LADWP is planning to achieve these goals by expanding its water conservation efforts through public education, installing high-efficiency water fixtures, providing incentives, and expanding the City's outdoor water conservation program.[103] To increase recycled water use, LADWP is expanding the recycled water distribution system to provide water for irrigation, industrial use, and groundwater recharge. Furthermore, LADWP will continue to update its UWMP every five years to ensure that sufficient water supply continues to be available.

Based on the above, it is anticipated that LADWP would be able to meet the water demands of the Project and future growth within its service area through at least 2040. Therefore, the Project together with the related projects would not result in significant cumulative impacts related to water supply, nor would the Project contribute considerably to cumulative water demand. As such, cumulative water supply impacts would be less than significant.

(2) Mitigation Measures

Cumulative impacts related to water supply and infrastructure would be less than significant. Therefore, no mitigation measures are required.

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[103] *LADWP, 2020 Urban Water Management Plan, May 2021.*

(3) Level of Significance After Mitigation

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