IV. Environmental Impact Analysis

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

1. Introduction

This section of the Draft EIR provides an analysis of the Project's potential impacts to water supply and the water infrastructure system serving the Project Site. The analysis includes a description of regional water supplies and the existing water infrastructure serving the Project Site, estimates the water demand associated with the Project, and assesses whether there is sufficient water supply and infrastructure capacity to meet that demand. The analysis is based on the *Senior Residential Community at the Bellwood—Water, Sewer, and Energy Infrastructure Assessment Report* (Utility Report), prepared for the Project by Fuscoe Engineering, Inc., February 2020, which is included as Appendix J of this Draft EIR.

2. Environmental Setting

a. Regulatory Framework

(1) State

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

The California Urban Water Management Planning Act (California Water Code, Sections 10610–10656) addresses several state policies regarding water conservation and development of water management plans to ensure that adequate supplies are available to meet existing and future demands. The California Urban Water Management Planning Act also requires water suppliers to develop water management plans every five years to identify short-term and long-term demand management measures to meet growing water demands during normal, single-dry, and multiple-dry years. Specifically, municipal water suppliers that serve more than 3,000 customers or provide more than 3,000 acre-feet per year (AFY) of water must adopt an urban water management plan every five years.[1]

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

A number of recent requirements regarding preparation of water management plans have been added to the Urban Water Management Planning Act. These additional requirements include: (i) a narrative description of water demand measures implemented over the past five years and future measures planned to meet 20 percent demand reduction targets by 2020; (ii) a standard methodology for calculating system water loss; (iii) a voluntary reporting of passive conservation savings, energy intensity, and climate change; and (iv) an analysis of water features that are artificially supplied with water.[2]

(b) Senate Bill X7-7 (California Water Code Section 10608)

Senate Bill (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 includes the setting of an overall goal of reducing per capita urban water use, compared to 2009 levels, by 20 percent by December 31, 2020. The state 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 13.3 percent in January 2019 as compared to production in January 2013.[3]

(c) Senate Bill 610 (California Water Code Sections 10910 et seq.)

SB 610, codified in the California Water Code Sections 10910 et seq., became effective January 1, 2002. SB 610 requires counties and cities to consider the availability of adequate water supplies for certain new large development projects as part of the California Environmental Quality Act (CEQA) process. Specifically, SB 610 requires that for certain projects subject to CEQA, the urban water supplier must prepare a Water Supply Assessment (WSA) that determines whether the projected water demand associated with a project is included as part of the most recently adopted urban water management plan. The WSA shall identify existing water supply entitlements, water rights, or water service contracts held by the public water system, and prior years' water deliveries received by the public water system. In addition, it must address water supplies over a 20-year future period and consider average, single-dry, and multiple-dry years. In accordance with Water Code Section 10912, projects subject to CEQA requiring preparation of a WSA include the following:

- Residential developments of more than 500 dwelling units;

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[2] *California Water Code, Section 10631.*

[3] *SWRCB, Fact Sheet, January 2019 Statewide Conservation Data.*

- Shopping center or business establishment 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 plant, or industrial park of more than 40 acres of land, more than 650,000 square feet of floor area, or employing more than 1,000 persons;
- Mixed-use projects that include one or more of the above-identified categories; or
- A project that would demand an amount of water equivalent to or greater than the amount of water required by a 500-dwelling unit project.

The WSA must be approved by the public water system 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.

As discussed in Section II, Project Description, of this Draft EIR, the Project would construct 192 senior housing residential units, including 71 senior-independent dwelling units, 75 assisted living guest rooms, and 46 memory care guest rooms. Therefore, the Project does not meet any of the project thresholds above and the preparation and approval of a WSA by LADWP is not required.

(d) Senate Bill 606 and Assembly Bill 1668

On May 31, 2018, Governor Edmund G. "Jerry" Brown (Governor Brown) signed SB 606 and Assembly Bill (AB) 1668 into law.[4] The pair of bills sets permanent overall targets for indoor and outdoor water consumption. The bills set an initial limit for indoor water use of 55 gallons per person per day in 2022, dropping to 50 gallons per person per day by 2030. The Department of Water Resources (DWR) and the State Water Resources Control Board (SWRCB) will recommend standards for outdoor use by October 2021.

(e) California Plumbing Code

Title 24, Part 5 of the California Code of Regulations (CCR) establishes the California Plumbing Code. The California Plumbing Code sets forth efficiency standards

[4] *Office of Edmund G. Brown, Jr., "Governor Brown Signs Legislation Establishing Statewide Water Efficiency Goals," May 31, 2018.*

(i.e., maximum flow rates) for all new federally-regulated plumbing fittings and fixtures, including showerheads and lavatory faucets. The 2019 California Plumbing Code, which is based on the 2018 Uniform Plumbing Code, has been published by the California Building Standards Commission and went into effect on January 1, 2020.

(f) Sustainable Groundwater Management Act of 2014

The Sustainable Groundwater Management Act 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.[5,6] The Sustainable Groundwater Management Act requires the formation of local groundwater sustainability agencies to assess local water basin conditions and adopt locally based management plans. Local Groundwater Sustainability Agencies (GSAs) were required to be formed by June 30, 2017.

Under Water Code Section 10720.7, groundwater sustainability agencies responsible for high- and medium-priority basins that are subject to critical conditions of overdraft must adopt groundwater sustainability plans by January 31, 2020. Plans for high- and medium-priority basins that are not in critical overdraft must be adopted by January 31, 2022. The Sustainable Groundwater Management Act 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 Sustainable Groundwater Management Act provides local groundwater sustainability agencies with the authority to require registration of groundwater wells, measure and manage extractions, require reports and assess fees, and request revisions of basin boundaries, including establishing new sub-basins. To date, no groundwater sustainability agency has been formed for the Coastal Plain of Los Angeles Groundwater Basin, which includes the Project Site.[7]

As required by the Sustainable Groundwater Management Act, in December 2016, the California Department of Water Resources (DWR) published on its website the best management practices (BMPs) for sustainably managing groundwater.

- BMP 1. Monitoring Protocols, Standards, and Sites;
- BMP 2. Monitoring Networks and Identification of Data Gaps;

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[5] *Sustainable Groundwater Management Act [And Related Statutory Provisions from SB 1168 (Pavley), AB 1739 (Dickinson), and SB 1319 (Pavley) as Chaptered], 2015 Amendments, effective January 1, 2016.*

[6] *DWR, SGM Sustainable Groundwater Management, www.water.ca.gov/Programs/Groundwater-Management/SGMA-Groundwater-Management, accessed January 15, 2021.*

[7] *California Department of Water Resources, SGMA Portal, All Posted GSA Notices, https://sgma.water.ca.gov/portal/gsa/all, accessed December 11, 2020.*

- BMP 3. Hydrogeologic Conceptual Model;
- BMP 4. Water Budget; and
- BMP 5. Modeling.[8]

In November 2017, BMP 6 for Sustainable Management Criteria was released for a public comment period, which closed on January 8, 2018. As of December 2020, BMP 6 is still in draft form.[9] Furthermore, under Section 10720.7 of the Sustainable Groundwater Management Act, groundwater sustainability agencies responsible for high- and medium-priority basins must adopt groundwater sustainability plans by January 31, 2020, or January 31, 2022, depending on whether the basin is in critical overdraft. The Coastal Plain of Los Angeles Groundwater Basin, which includes the Project Site, is not currently in critical overdraft; therefore, no groundwater sustainability plan has been adopted.

(g) Article 22.5 Drought Emergency Water Conservation, California Code of Regulations (Emergency Declaration and Executive Orders)

In response to California's drought conditions, Governor Brown issued numerous Executive Orders regarding water conservation. Executive Order B-37-16, which was issued in May 2016, extended the mandatory water reduction measures outlined in a previous Executive Order B-29-15 and further directed the DWR and the State Water Resources Control Board (SWRCB) to develop long term efficiency targets that go beyond the 20 percent reductions mandated by SB X7-7, discussed above. The executive order also establishes longer-term water conservation measures that include permanent monthly water use reporting, new urban water use targets, reducing system leaks and eliminating wasteful practices, strengthening urban drought contingency plans and improving agricultural water management and drought plans.

Due to improved hydrologic conditions statewide, on April 7, 2017, Governor Brown issued Executive Order B-40-17 lifting the drought emergency in all but four California counties.[10] Executive Order B-40-17 also rescinds the Drought Emergency Proclamations issued in January and April 2014 as well as four drought-related Executive Orders issued in 2014 and 2015. However, Executive Order B-40-17 also directs the SWRCB to maintain

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[8] *DWR, Best Management Practices, www.water.ca.gov/Programs/Groundwater-Management/SGMA-Groundwater-Management/Best-Management-Practices-and-Guidance-Documents, accessed December 11, 2020.*

[9] *DWR, Best Management Practices, www.water.ca.gov/Programs/Groundwater-Management/SGMA-Groundwater-Management/Best-Management-Practices-and-Guidance-Documents, accessed December 11, 2020.*

[10] *The Counties of Fresno, Kings, Tulare, and Tuolumne remain under a drought state of emergency, per Executive Order B-40-17.*

urban water use reporting requirements and prohibitions on wasteful practices, including watering during rainfall, hosing off sidewalks, and irrigating ornamental turf on public street medians. Water agencies will continue to strengthen drought readiness and water use efficiency.[11] The regulatory requirements resulting from the existing Executive Orders have been codified in Article 22.5, Drought Emergency Water Conservation, of the California Code of Regulations.

(h) California Water Plan[12]

Required by Water Code Section 10005(a), the California Water Plan is the State's strategic plan for managing and developing water resources statewide for current and future generations. 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.

Updated every five years, the plan presents the status and trends of California's water-dependent natural resources, water supplies, and agricultural, urban, and environmental water demands for a range of plausible future scenarios. The California Water Plan also evaluates coordinated efforts 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 thus help identify effective actions and policies for meeting California's resource management objectives in both short term and long term of future decades. While the California Water Plan cannot mandate actions or authorize itemized spending, policy-makers and lawmakers have the ability to authorize specific actions and appropriate necessary funding. Released in July 2019, the California Water Plan Update 2018 recommends 19 priority actions to improve integrated watershed management; strengthen infrastructure resiliency; restore ecosystem functions; empower under-represented communities; improve inter-agency alignment; address regulatory challenges; and support decision-making, adaptive management, and long-term planning.[13] The California Water Plan Update will work in tandem with the California Water Action Plan, as discussed further below.

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[11] *Governor Brown Lifts Drought Emergency, Retains Prohibition on Wasteful Practices, Executive Order B-40-17.*

[12] *DWR, About the Water Plan, https://water.ca.gov/Programs/California-Water-Plan, accessed December 11, 2020.*

[13] *DWR, DWR Released Final California Water Plan Update 2018, published July 16, 2019, https://water.ca.gov/News/News-Releases/2019/July-19/Final-Water-Plan-Update-2018, accessed December 11, 2020.*

(i) California Water Action Plan

The first California Water Action Plan (Action Plan), issued by Governor Brown in January 2014 and updated in 2016, provides a roadmap for the State's path toward sustainable water management.[14] The Action Plan discusses the challenges for managing the State's water resources supply, scarcity, and quality, and also considers the effects of ecosystems, flooding, population growth, and climate change and floods. The following ten actions were presented:[15]

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

In complementing local efforts, the Action Plan emphasizes collaboration between different levels of government, water agencies, conservationists, tribes, farmers, and other stakeholders. Since the release of the Action Plan Update for 2016, its implementation progress has also been documented with focuses on policy, funding, and coordinated projects. The Action Plan will continue to be implemented simultaneously with the California Water Plan Update 2018.

[14] *California Department of Natural Resources, California Water Action Plan 2016 Update.*

[15] *California Department of Natural Resources, California Water Action Plan 2014.*

(2) Regional

As discussed in detail below, the Metropolitan Water District of Southern California (MWD) is a primary source of water supply within Southern California. MWD imports a portion of its water supplies from Northern California through the State Water Project's California Aqueduct, and from the Colorado River through MWD's own Colorado River Aqueduct. LADWP is a member agency and purchases supplemental water from MWD in addition to the supplies from local groundwater and the Los Angeles Aqueduct.

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

(a) MWD's Integrated Water Resources Plan

MWD first adopted its Integrated Water Resources Plan (IRP) in 1996. The MWD's IRP is updated every five years. The goal of the MWD's IRP is for Southern California to have a reliable water system that extends to the future. The MWD's 2015 IRP Update, adopted in January 2016, provides MWD's strategy for water resource reliability through the year 2040. The IRP represents MWD's long-term plan to assure adequate water supplies for Southern California, whereas MWD's 2015 Urban Water Management Plan (UWMP), discussed in more detail below, describes and evaluates sources of supply, efficient uses, water recycling and conservation activities.

The MWD's 2015 IRP Update calls for stabilizing and maintaining imported water supplies; meeting future growth through increased water conservation and sustaining and developing new local supplies; pursuing a comprehensive transfers and exchanges strategy; building storage in wet and normal years to manage risks and drought; and preparing for uncertainty with Future Supply Actions. Overall, the strategies presented in MWD's 2015 IRP Update include investments to maintain the reliability of imported water supplies, expansion of local water supplies, and reduction in water demand through a variety of conservation and water use efficiency initiatives.[16]

[16] *MWD, Integrated Water Resources Plan 2015 Update, January 2016.*

(b) MWD's 2015 Urban Water Management Plan

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

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

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

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[17] *MWD, 2015 Urban Water Management Plan, June 2016.*

[18] *MWD, Water Surplus and Drought Management Plan: Report No. 1150, August 1999.*

conditions. Conservation and water efficiency programs are part of MWD's resource management strategy through all categories.

(d) MWD's Water Supply Allocation Plan

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

(3) Local

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

The City is required to adopt an UWMP every five years. In June 2016, LADWP adopted its 2015 Urban Water Management Plan (2015 LADWP UWMP), which is based on a 25 year planning horizon through 2040. The 2015 LADWP UWMP serves two purposes: (i) achieve full compliance with the requirements of California's Urban Water Management Planning Act (discussed above); and (ii) serve as a master plan for water supply and resource management consistent with the City's goals and objectives.[19]

A number of important changes occurred since the LADWP prepared its 2010 UWMP. The year 2012 marked the start of a multi-year drought in California, in response to which Governor Brown proclaimed a drought state of emergency in January 2014. In addition, as discussed above, in 2014, the SWRCB implemented its Drought Emergency Water Conservation Regulation, which mandates 25-percent reductions in water use statewide. In October 2014, City of Los Angeles Mayor Eric Garcetti issued Executive Directive No. 5 (ED 5), which set goals to reduce per capita water use, reduce purchases of imported potable water by 50 percent, and create an integrated water strategy to

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

increase local supplies and improve water security considering climate change and seismic vulnerability. In addition, in April 2015, Mayor Garcetti released the first Sustainable City pLAn (discussed further below), establishing targets for the City that strengthen and promote sustainability throughout the year 2035. The 2019 L.A.'s New Green Deal, also discussed below, expands on the vision of the Sustainable City pLAn. The 2015 LADWP UWMP incorporates the objectives of these recent initiatives.

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

The City's first Sustainable City pLAn released in April 2015 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.

In 2019, the first four-year update to the 2015 Sustainable City pLAn was released. This updated document, known as L.A.'s Green New Deal, expands upon the City's vision for a sustainable future and provides accelerated targets and new goals.[20] L.A.'s Green New Deal focuses on environmental justice, renewable energy, local water, clean and healthy buildings, housing and development, mobility and public transit, zero emission vehicles, industrial emissions and air quality monitoring, waste and resource recovery, food systems, urban ecosystems and resilience, and green jobs. In addition, all targets have been aligned with the United Nations Sustainable Development Goals.

L.A.'s Green New Deal provides the following targets related to local water in the City:

- Source 70 percent of L.A.'s water locally and capture 150,000 AFY of stormwater by 2035.
- Recycle 100 percent of all wastewater for beneficial reuse by 2035.
- Build at least 10 new multi-benefit stormwater capture projects by 2025; 100 by 2035; and 200 by 2050.
- Reduce potable water use per capita by 22.5 percent by 2025; and 25 percent by 2035; and maintain or reduce 2035 per capita water use through 2050.
- Install or refurbish hydration stations at 200 sites, prioritizing municipally-owned buildings and public properties such as parks, by 2035.

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

L.A.'s Green New Deal also provides specific milestones and initiatives to meet such targets.

(c) Resilient Los Angeles

In March 2018, the Mayor's office in partnership with 100 Resilient Cities[21] released the Resilient Los Angeles Plan, which includes strategies to fortify the City's infrastructure, protect its economy, and make Los Angeles safer.[22] Goal 11, *Restore, Rebuild, and Modernize Los Angeles' Infrastructure*, includes measures related to water supply. Specific goals include, but are not limited to, expanding the City's seismic resilient pipe network, replacing aging infrastructure, and expanding and protecting water sources to reduce dependence on imported water and strengthen the City's local water supply.

(d) One Water LA 2040 Plan

The One Water LA 2040 Plan (One Water LA) is an initiative that builds on the progress of the City's Integrated Resources Plan. One Water LA extends the City's IRP planning period from 2020 to year 2040 and takes into consideration an additional emphasis on environmental, social, and sustainability factors.[23] One Water LA is a collaborative approach to develop an integrated framework for managing the City's watersheds, water resources, and water facilities in an environmentally, economically, and socially beneficial manner. One Water LA objectives include the following:[24]

1. Integrate management of water resources and policies by increasing coordination and cooperation between all City departments, partners and stakeholders.

2. Balance environmental, economic and societal goals by implementing affordable and equitable projects and programs that provide multiple benefits to all communities.

3. Improve health of local watersheds by reducing impervious cover, restoring ecosystems, decreasing pollutants in our waterways and mitigating local flood impacts.

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[21] *Pioneered by the Rockefeller Foundation, 100 Resilient Cities is dedicated to helping cities around the world become more resilient to the physical, social and economic challenges that are a growing part of the 21st century.*

[22] *City of Los Angeles, Resilient Los Angeles, March 2018.*

[23] *LADWP, Water Supply Assessment—8th, Grand and Hope Project, November 19, 2019.*

[24] *LASAN, About One Water LA, www.lacitysan.org/san/faces/home/portal/s-lsh-es/s-lsh-es-owla/s-lsh-es-owla-au?_adf.ctrl-state=16okwrlh8h_5&_afrLoop=510921480353498#!, accessed December 11, 2020.*

4. Improve local water supply reliability by increasing capture of stormwater, conserving potable water and expanding water reuse.

5. Implement, monitor and maintain a reliable wastewater system that safely conveys, treats and reuses wastewater while also reducing sewer overflows and odors.

6. Increase climate resilience by planning for climate change mitigation and adaptation strategies in all City actions.

7. Increase community awareness and advocacy for sustainable water by active engagement, public outreach and education.

(e) Los Angeles Municipal Code

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

- City Ordinance 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.[25] 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.

- City 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.

- City 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

[25] *Ordinance applies to any person(s), association, corporation or governmental agency supplied/entitled to be supplied with water service by the Department.*

fixtures or flow restrictions; and/or (2) demonstrating a 20-percent reduction in baseline water use.

- City 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.

- City 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.

- City Ordinance No. 186,692—amended LAMC Chapter IX, Article 4 (Los Angeles Plumbing Code) by adopting by reference various sections of the 2019 California Plumbing Code, with amendments. This ordinance also added requirements for plumbing fixtures and fixture fitting.

- City Ordinance No. 184,248—amended LAMC Chapter IX, Article 4 (Plumbing Code) and Article 9 (Green Building Code) to establish citywide water efficiency standards and mandate a number of new fixture requirements and methods of construction for plumbing and irrigation systems.

The City of Los Angeles also has adopted numerous requirements related to the provision of water for purposes of fire protection. These requirements are set forth in the Fire Code (LAMC Chapter V, Article 7). LAMC Section 57.507.3.1 establishes fire water flow standards. Fire water flow requirements, as determined by the Los Angeles Fire Department (LAFD), vary by project site as they are dependent on land use (e.g., higher intensity land uses require higher flow from a greater number of hydrants), life hazard, occupancy, and fire hazard level. As set forth in LAMC Section 57.507.3.1, fire water flow requirements vary from 2,000 gallons per minute (gpm) in low density residential areas to 12,000 gpm in high density commercial or industrial areas. A minimum residual water pressure of 20 pounds per square inch (psi) is to remain in the water system with the required gpm flowing. As discussed in Section IV.H.1, Public Services—Fire Protection, of this Draft EIR, as determined by the LAFD, the required fire flow for the Project has been set at 6,000 gpm to 9,000 gpm from four to six hydrants flowing simultaneously with a minimum residual water pressure of 20 psi, which translates to 1,500 gpm per hydrant.

(f) Los Angeles Water Rate Ordinance

The City's Water Rate Ordinance was adopted in June 1995 and last amended in 2016 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. 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.

(g) LADWP 2018–19 Water Infrastructure Plan[26]

The LADWP 2018–19 Water Infrastructure Plan, revised November 2019, includes infrastructure upgrades that are a part of the $6.3 billion five-year Water System capital plan. This updated document builds upon the progress of LADWP's 2017–19 Water Infrastructure Plan and provides accelerated targets and new goals. The main elements of the Water Infrastructure Plan include the replacement of distribution mainlines, trunk lines, large valves, and water meters, as well as ongoing maintenance and rehabilitation of facilities such as pump stations, pressure regulators, and in-city reservoirs and tanks.

b. Existing Conditions

(1) Water Supply

LADWP is responsible for providing water within the City of Los Angeles 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. Water is supplied to the City from four primary sources: the Los Angeles Aqueducts, local groundwater, purchased water from MWD, and recycled water.[27] As shown in Table IV.K.1-1 on page IV.K.1-16, in 2018, the most recent year for which data is available, LADWP had an available water supply of 511,517 acre-feet. LADWP water sources are described in further detail below.

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[26] *LADWP, 2018-19 Water Infrastructure Plan, revised November 2019.*

[27] *LADWP, Water Supply Assessment—8th, Grand, and Hope Project, November 19, 2019.*

Table IV.K.1-1
LADWP 2007–2018 Water Supply

Calendar Year	Los Angeles Aqueducts	Local Groundwater	MWD	Recycled Water	Transfer, Spread, Spills, and Storage	Total[a]
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	326,122	5,965	**-1,182**	**556,872**
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 [b]	245,941	43,100	214,940	8,795	**-1,259**	**511,517**

Units are in acre-feet.

[a] *The figures presented account for the transfer, spread, spill, and storage of the water supply as determined by LADWP.*

[b] *2018 water supply data are estimated.*

Source: LADWP, Water Supply Assessment—8th, Grand and Hope Project, November 19, 2019, Table III.

(a) Los Angeles Aqueducts

Snowmelt runoff from the Eastern Sierra Nevada Mountains is collected and conveyed to the City via the Los Angeles Aqueducts. The Los Angeles Aqueducts' supplies come primarily from snowmelt and secondarily from groundwater pumping, and can fluctuate yearly due to the varying hydrologic conditions. The City holds water rights in the Eastern Sierra Nevada where the Los Angeles Aqueducts' water supplies originate. These supplies originate from both streams and groundwater. As indicated in Table IV.K.1-1, approximately 245,941 acre-feet of LADWP's water supplies were from the Los Angeles Aqueducts in 2018.

According to LADWP, average deliveries from the Los Angeles Aqueducts system from Fiscal Year (FY) 2011/2012 through FY 2015/2016 were approximately 111,293 acre-feet of water annually.[28] During this period, the record low snowpack for Los

[28] *LADWP, Water Supply Assessment—8th, Grand, and Hope Project, November 19, 2019.*

Angeles Aqueducts watershed in the Eastern Sierra Nevada Mountains was recorded on April 1, 2015. Supply conditions have changed drastically since 2015. Snowpack in the Eastern Sierra Nevada Mountains was at 100 percent of an average year on April 1, 2020.[29]

Various lawsuits and injunctions, and resulting agreements affect water supplies from the Los Angeles Aqueduct. 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 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.[30]

Based on historical hydrological conditions from FY 1961/1962 to FY 2010/2011 LADWP projects that the average annual long-term Los Angeles Aqueducts delivery between 2015 and 2040 is expected to be approximately 278,000 acre-feet per year (AFY) and gradually decline to 267,000 AFY due to projected climate change impacts.[31] However, with completion of the Owens Lake Master Project by 2024, the projected Los Angeles Aqueducts delivery may increase to 286,000 AFY due to water conserved at Owens Lake, which would off-set most of the anticipated long-term losses.[32]

(b) Groundwater

LADWP pumps groundwater from three adjudicated basins, including the San Fernando, Sylmar, and Central Basins. LADWP has accumulated 523,529 acre-feet of stored water credits in the San Fernando Basin as of October 1, 2016.[33] This water can be

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

[30] *LADWP, Water Supply Assessment—8th, Grand and Hope Project, November 19, 2019.*

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

[32] *LADWP, Water Supply Assessment—8th, Grand and Hope Project, November 19, 2019.*

[33] *LADWP, Water Supply Assessment—8th, Grand, and Hope Project, November 19, 2019.*

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 entitlements also include 3,570 AFY from the Sylmar Basin and 17,236 AFY from the Central Basin.

As shown in Table IV.K.1-2 on page IV.K.1-19, during the FY 2017/18 (July through June), LADWP extracted 22,259 acre-feet from the San Fernando Basin and 0.77 acre-feet from the Central Basin.[34] LADWP plans to continue production from its groundwater basins in the coming years to offset reductions in imported water supplies. Extraction from the basins will, however, be limited by water quality and overdraft protection. 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 Basins.[35] 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.

(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 State Water Project'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 Los Angeles Aqueducts and local groundwater. As of June 30, 2017, LADWP has a preferential right to purchase 18.51 percent of MWD's total water supply.[36]

The Sustainable City pLAn, discussed above, calls 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.[37] L.A.'s Green New Deal also reaffirms this initiative.[38] To meet these targets, LADWP plans to increase conservation, enhance the ability for

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[34] *LADWP, Water Supply Assessment—8th, Grand and Hope Project, November 19, 2019.*

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

[36] *LADWP, Water Supply Assessment—8th, Grand and Hope Project, November 19, 2019.*

[37] *LADWP, Water Supply Assessment—8th, Grand and Hope Project, November 19, 2019.*

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

Table IV.K.1-2
Local Groundwater Basin Supply

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

Units are in acre-feet.

[a] *Projected production from 2015 UWMP.*

Source: LADWP, Water Supply Assessment—8th, Grand and Hope Project, November 19, 2019.

groundwater pumping through increased stormwater capture projects and groundwater replenishment with highly treated recycled water as well as remediation of contaminated 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.[39]

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.[40] As indicated in Table IV.K.1-1 on page IV.K.1-16, LADWP received approximately 214,940 acre-feet of water from MWD in 2018, which was a 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.

[39] *LADWP, Water Supply Assessment—8th, Grand and Hope Project, November 19, 2019.*

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

(i) State Water Project

MWD imports water from the State Water Project, owned by the State of California and operated by DWR. The State Water Project is a water storage and delivery system of pump stations, reservoirs, aqueducts, tunnels, and power plants. The main purpose of the State Water Project is to divert and store surplus water during wet periods and distribute it to areas throughout the State. Other purposes of the State Water Project include flood control, power generation, recreation, fish and wildlife protection, and water quality management in the Sacramento–San Joaquin River Delta. The State Water Project 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 is one of the 29 agencies that have long-term contracts for water service from DWR, and is the largest agency in terms of the number of people it serves (approximately 18.8 million), the share of the State Water Project that it has contracted to receive (approximately 46 percent), and the percentage of total annual payments made to DWR by agencies with State water contracts (approximately 49 percent for 2018).[41]

The State Water Project, under the original contracted amount at 100 percent allocation, provides MWD with 1,911,500 acre-feet of water each calendar year.[42] However, due to water quality and supply reliability challenges and conflicts from variable hydrology and environmental standards that limit pumping operations, State Water Project deliveries in the most critically dry years have varied. For 2019, DWR allocation levels were initially further reduced to 15 percent in January, but levels were subsequently increased to 35 percent in February and 75 percent in June.[43]

Challenges to State Water Project Supply

Litigation and various regulations have created challenges for the State Water Project. 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 State Water Project operations and created more uncertainty in State Water Project supply reliability. Based on DWR's 2015 *State Water Project Delivery Capability Report*, future State Water Project deliveries will continue to be impacted by restrictions on

[41] *LADWP, Water Supply Assessment—8th, Grand, and Hope Project, November 19, 2019.*

[42] *LADWP, Water Supply Assessment—8th, Grand, and Hope Project, November 19, 2019.*

[43] *CA DWR, Notice to State Water Project Contractors, Nos. 19-03, 19-06, and 19-10.*

State Water Project and Central Valley Project Delta pumping, and climate change, which is altering the hydrologic conditions in the State.

(ii) The Colorado River

MWD owns and operates the Colorado River Aqueduct, which has delivered water from the Colorado River to Southern California since 1942.[44] 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.[45] 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.[46] In addition, California has historically been allowed to use Colorado River water apportioned to, but not used by, Arizona or Nevada. Since 2003, due to increased consumption, no such unused apportioned water has been available to California. 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 have contributed to a decrease in these claims.[47] MWD's total supply from the Colorado River for Calendar Year 2016 was approximately 985,000 acre-feet.[48] 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. Their efforts resulted in the Drought Contingency Plan adopted and enacted in 2019. The Drought Contingency Plan is a collection of agreements within and among the seven western states in the Colorado River Basin to boost storage levels in Lake Mead and Lake Powell and prevent the reservoirs from reaching critically low levels.

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.[49] Specifically, under a 1988 water conservation agreement between MWD

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[44] *LADWP, Water Supply Assessment—8th, Grand, and Hope Project, November 19, 2019.*

[45] *LADWP, Water Supply Assessment—8th, Grand and Hope Project, November 19, 2019.*

[46] *LADWP, Water Supply Assessment—8th, Grand and Hope Project, November 19, 2019.*

[47] *LADWP, Water Supply Assessment—8th, Grand and Hope Project, November 19, 2019.*

[48] *LADWP, Water Supply Assessment—8th, Grand and Hope Project, November 19, 2019.*

[49] *LADWP, Water Supply Assessment—8th, Grand and Hope Project, November 19, 2019.*

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.[50] 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 of 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 2003 Quantification Settlement Agreement, signed by the Department of Fish and Game (now known as the California Department of Fish and Wildlife); the Coachella Valley Water District; the Imperial Irrigation District (IID); and the San Diego County Water Authority (SDWCA) and executed in October 2003 as well as the Transfer Agreement, signed by the IID and the SDWCA and executed in 1998. Additional guidelines and programs that influence management of the Colorado River water supplies include the Interim Surplus Guidelines, issued by the Secretary of the Interior; 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.

(iii) Additional MWD Actions to Address Supply

To improve water supply reliability for the entire Southern California region, MWD has also been pursuing voluntary water transfer and exchange programs with State, federal, public and private water districts, and individuals. Programs include the Arvin-Edison Storage Program; the Semitropic Storage Program; the San Bernardino Storage Program; the San Gabriel Valley MWD Exchange Program; the Antelope Valley-East Kern Water Agency Exchange and Storage Program; the Kern-Delta Water District Storage Program; the Mojave Storage Program; and the Central Valley Transfer Programs.[51]

In addition, MWD continues to develop plans and make 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.[52] As discussed above, MWD's long-term plans to meet its member agencies' reliability needs include improvements to the State Water Project, conjunctive management efforts on the

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

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

[52] *LADWP, Water Supply Assessment—8th, Grand and Hope Project, November 19, 2019.*

Colorado River, water transfer programs and outdoor conservation measures, and development of additional local resources, such as recycling brackish water desalination and seawater desalination.[53]

Additionally, MWD has more than 5 million acre-feet of storage capacity of available reservoirs and banking/transfer programs, with approximately 2.46 million acre-feet of water in Water Surplus Drought Management storage and an additional 626,000 acre-feet in emergency storage as of January 1, 2018.[54] With implementation of new and modified existing storage programs to manage the available surplus supplies, MWD was able to add storage in 2018 and began 2019 with approximately 2.5 million acre-feet of water in its dry-year storage portfolio. As described in the MWD's 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.

(d) Precipitation Conditions

During the 2018 water year (i.e., October 1, 2017, through September 30, 2018), California experienced dry conditions statewide, with nearly all the state experiencing below precipitation and much of Southern California receiving half or less of its average annual precipitation. The 2018 water year followed California's second-wettest year of record as measured by statewide runoff, ending a historic five-year drought.[55] The City of Los Angeles receives an average of 14.77 inches of precipitation per year according to the National Weather Service. As of December 10, 2020, the City had received 0.11 inches of precipitation.[56]

The 2019 water year (i.e., October 1, 2018 to September 30, 2019) ended with significantly more water in storage than the previous year due to above-average snow and precipitation.[57] According to the National Drought Mitigation Center, as of December 31, 2019, 96.43 percent of the state was not in a drought condition, and 3.57 percent of the State was considered abnormally dry.[58] This indicates a shift from the previous year on December 25, 2018, when approximately 92.23 percent of the State was abnormally dry,

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[53] *LADWP, Water Supply Assessment—8th, Grand and Hope Project, November 19, 2019.*

[54] *LADWP, Water Supply Assessment—8th, Grand and Hope Project, November 19, 2019.*

[55] *DWR, Water Year 2018: Hot and Dry Conditions Return, October 1, 2018.*

[56] *DWR, Daily Precipitation Stations, Los Angeles/USC, https://cdec.water.ca.gov/dynamicapp/QueryDaily?s=USC, accessed December 11, 2020.*

[57] *DWR, Water Year 2020 Begins with Robust Reservoir Storage, October 1, 2019, https://water.ca.gov/News/News-Releases/2019/October-19/Water-Year-2020-Begins-with-Robust-Reservoir-Storage, accessed December 11, 2020.*

[58] *United States Drought Monitor, State Drought Monitor, California, December 31, 2019.*

75.17 percent was experiencing moderate drought, 16.24 percent was experiencing severe drought, and 2.10 percent was experiencing extreme drought.[59]

California continues to experience variable weather and precipitation, as does the City of Los Angeles with its many periods of dry years and wet years. Thus, the State continues to develop and implement necessary strategies and actions to address future drought conditions and account for year-to-year fluctuations in precipitation.

(e) Global Warming and Climate Change

As discussed in the LADWP's 2015 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 Los Angeles Aqueducts, through 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.[60]

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.[61] As mentioned above, 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.[62]

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[59] *United States Drought Monitor, State Drought Monitor, California, December 25, 2018.*

[60] *LADWP, 2015 Urban Water Management Plan, June 2016, p. 12-1.*

[61] *DWR, California Water Plan Update 2013, Investing in Innovation & Infrastructure, Highlights, October 2014.*

[62] *DWR, California Water Plan Update 2018, https://water.ca.gov/Programs/California-Water-Plan/Update-2018, accessed December 11, 2020.*

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 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.[63] 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 2015 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 2015 UWMP aims to reduce per capita potable water use by 22.5 percent by 2025 and by 25 percent by 2035.[64] 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. 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.[65]

Based on LADWP's 2015 UWMP, recycled water use is projected to reach 59,000 AFY by 2025 and further increase to 75,400 AFY by 2040.[66] Overall, the 2015 LADWP UWMP projects a seven percent lower water demand trend than what was projected in the previous 2010 UWMP.[67] In addition, based on programs and improvements contemplated in the 2015 LADWP UWMP, locally developed water supplies would increase from the current 14 percent to 49 percent in dry years, or to 47 percent in average years by 2040.[68] L.A.'s Green New Deal also has a target to recycle 100 percent

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[63] *DWR, DWR Climate Action Plan, www.water.ca.gov/Programs/All-Programs/Climate-Change-Program/Climate-Action-Plan, accessed December 11, 2020.*

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

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

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

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

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

of all wastewater for beneficial reuse by 2035.[69] 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.[70]

(2) Water Demand

(a) Regional Water Demand

LADWP's 2015 UWMP provides water supply and demand projections in five-year increments to 2040, based on projected population estimates provided by the Southern California Association of Governments (SCAG) in its 2012–2035 Regional Transportation Plan/Sustainable Communities Strategy (2012–2035 RTP/SCS).[71] Table IV.K.1-3 on page IV.K.1-27 shows the projected water demand from the year 2020 through 2040 for the City of Los Angeles.

As shown in Table IV.K.1-3, in 2040 during average year hydrologic conditions, the City's water demand is forecasted to be approximately 675,700 AFY. Use of the current demand per capita within this demand forecast provides a conservative estimate of projected future water demand to ensure that water supplies are available to meet projected demands. LADWP's 2015 UWMP anticipates 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 2040.[72]

(b) On-Site Water Demand

As discussed in Section II, Project Description, the Project Site is currently occupied by three existing multi-family residential developments totaling 43,939 square feet, including 112 residential units comprised of 95 studio units, 15 one-bedroom units, and two two-bedroom units. The Project would remove the 43,939 square feet of existing residential use to accommodate the Project. As provided in Table IV.K.1-4 on page IV.K.1-28, the existing residential developments on the Project Site generated a water demand of approximately 16,800 gallons per day or approximately 18.82 acre-feet per year.

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

[70] *LADWP, Water Supply Assessment—8th, Grand and Hope Project, November 19, 2019.*

[71] *Since preparation of the 2015 Urban Water Management Plan, new growth forecasts have become available in SCAG's 2016–2040 and 2020–2045 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS). However, the 2016–2040 and 2020–2045 RTP/SCS forecasts are only marginally higher than the 2012 forecasts, in terms of current estimates and future projections and would, therefore, not significantly affect water demand projections.*

[72] *LADWP, 2015 Urban Water Management Plan, June 2016, Exhibits 11E–11K.*

Table IV.K.1-3
City of Los Angeles Water Demand Projections Based on Hydrologic Conditions
(thousand AFY)

Hydrologic Conditions	Year				
	2020	2025	2030	2035	2040
Average Year	611.8	644.7	652.9	661.8	675.7
Single Dry Year	642.4	676.9	685.5	694.9	709.5
Multi-Dry Year	642.4	676.9	685.5	694.9	709.5

AFY = acre-feet per year

Demands include existing passive conservation.

Source: LADWP, 2015 Urban Water Management Plan, Exhibits 11F, 11G, and 11H.

(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.[73] Much of the water flows north to south, entering Los Angeles at the Los Angeles Aqueduct Filtration Plant in Sylmar, which is owned and operated by LADWP. Water entering the Los Angeles Aqueduct Filtration Plant undergoes treatment and disinfection before being distributed throughout the LADWP's water service area.[74]

Domestic water service is available to the Project Site via LADWP water lines within the adjacent streets. According to the Utility Report, there is a 4-inch water line that splits the northerly and southerly portions of the Project Site in the existing Bellwood Avenue alignment, connecting to a 6-inch main line on Olympic Boulevard. Additionally, another existing 12-inch main line runs along the southbound side of Olympic Boulevard.

In addition to providing domestic water service, LADWP also provides water for fire protection services in accordance with the City's Fire Code (LAMC Chapter V, Article 7). According to the Utility Report, there are currently two existing fire hydrants located within 300 feet of the Project Site boundary along the north side of Olympic Boulevard fronting the neighboring properties.

[73] *LADWP, Briefing Book 2018–2019.*

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

Table IV.K.1-4
Estimated Project Water Demand

Land Use	No. of Units/ Floor Area	Water Demand Rate (gpd/unit)[a]	Demand (gpd)
Existing Uses to Be Removed			
Residential	112 units	150	16,800
Total Existing to Be Removed			*16,800*
Proposed			
Senior Independent Units	71 units	110	7,810
Assisted Living Guest Rooms	75 units	110	8,250
Memory Care Guest Rooms	46 units	110	5,060
Indoor Common Areas	50,463 sf	0.05	2,523
Outdoor Common Areas	14,630 sf	0.05	732
Indoor Swimming Pool	1 units	16,458	16,458
Indoor Spa	1 units	1,908	1,908
Total Proposed Water Demand			**42,741**
Total Existing Water Demand			***16,800***
Project Net Water Demand (Proposed – Existing)			**25,941**

gpd = gallons per day

sf = square feet

Note: Some numbers do not add up perfectly due to rounding.

[a] *Based on 2012 LASAN Sewer Generation Rates.*

[b] *Based on correspondence from BOS to Department of City Planning regarding the projected wastewater discharges for the proposed Project dated July 11, 2019.*

Source: Fuscoe Engineering, Inc, Senior Residential Community at The Bellwood Water, Sewer, and Energy Infrastructure Assessment Report; Eyestone Environmental, 2021.

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.

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. Refer to Section IV.K.2, Utilities and Service Systems—Wastewater, of this Draft EIR for a discussion of wastewater impacts; Section IV.C, Energy Conservation and Infrastructure of this Draft EIR for a discussion of electric power and natural gas infrastructure; and Section VI, Other CEQA Considerations for a discussion of stormwater and telecommunications facility infrastructure.

The *L.A. CEQA Thresholds Guide* identifies the following criteria to evaluate water supply and infrastructure impacts:

- The total estimated water demand for the project;
- Whether sufficient capacity exists in the water infrastructure that would serve the project, taking into account the anticipated conditions at project buildout;
- The amount by which the project would cause the projected growth in population, housing or employment for the Community Plan area to be exceeded in the year of project completion; and,
- The degree to which scheduled water infrastructure or project design features would reduce or offset service impacts.

b. Methodology

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 analysis with regard to water infrastructure is based on the Utility Report prepared for the Project by Fuscoe Engineering, Inc., which is included in Appendix J of

this Draft EIR. The Utility Report includes a comparison of the estimated net water demand for the Project to the available capacity of the existing water infrastructure.

c. Project Design Features

No specific project design features are proposed with regard to water supply.

d. Analysis of Project Impacts

Threshold (a): Would the Project require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?[75]

(1) Impact Analysis

(a) Construction

During construction, water will be required intermittently for dust control, equipment cleaning, soil grading and preparation during the early phases of the Project. The latter phases of construction require less water usage. As discussed in the Utility Report, the Project would require the relocation of the existing water lines that serve the Project Site as well as construction of new on-site water distribution lines to serve the new buildings and uses due to the proposed realignment of Bellwood Avenue, which currently bisects the north and south portions of the Project Site. Specifically, construction of the Project would require the existing 4-inch line to be decommissioned, removed, and replaced with two new distinct water main extensions, including approximately 250 feet of new 8-inch line to be installed in the easterly half of Bellwood Avenue and approximately 213 feet of new 8-inch line to be installed in the westerly drive aisle of Bellwood Avenue. These two new 8-inch main lines would tie into the existing 12-inch main in Olympic Boulevard.

Construction impacts associated with the installation of water distribution lines would primarily involve trenching to place the lines below surface. Installation of new water infrastructure would be limited to on-site water distribution and off-site work associated with installation of the new 8-inch water lines and connections to the public main. Prior to ground disturbance, Project contractors would coordinate with LADWP to identify the

[75] *Refer to Section IV.K.2, Utilities and Service Systems – Wastewater of this Draft EIR for a discussion of wastewater impacts; Section IV.K.3, Utilities and Service Systems—Energy Infrastructure of this Draft EIR for a discussion of electric power and natural gas infrastructure; and Section VI, Other CEQA Considerations for a discussion of stormwater and telecommunications facility infrastructure.*

locations and depths of all lines and to avoid existing water lines and disruption of water service. LADWP would review and approve all appropriate connection requirements, pipe depths, and connection location(s). The limited off-site connection activities could also temporarily affect access in adjacent rights-of-way. Therefore, as discussed in Section IV.I, Transportation, of this Draft EIR, a Construction Traffic Management Plan would be implemented during Project construction pursuant to Project Design Feature TR-PDF-1 to reduce any temporary pedestrian and traffic impacts. The Construction Traffic Management Plan would ensure safe pedestrian access and vehicle travel in general, and emergency vehicle access, in particular, throughout the construction period. **Overall, construction activities associated with the Project would not require or result in the relocation or construction of new water facilities or expansion of existing facilities that could have a significant impact on the environment. As such, construction-related impacts to water infrastructure would be less than significant.**

(b) Operation

Water service to the Project Site would continue to be supplied by LADWP for domestic and fire protection uses. As discussed in the Utility Report, while domestic water demand is typically the main contributor to operational water consumption, fire flow demands have a much greater instantaneous impact on infrastructure, and therefore, are the primary means for analyzing infrastructure capacity.

Fire flow to the Project would be required to meet City fire flow requirements. Specifically, the Project would comply with LAMC Section 57.507.3.1, which establishes fire flow standards by development type. As previously described, LAFD has determined the Project's required fire flow is 6,000 gpm to 9,000 gpm from four to six hydrants flowing simultaneously with a residual pressure of 20 psi. This translates to a required flow of 1,500 gpm for each hydrant. As previously discussed, there are two existing fire hydrants within 300 feet of the Project Site. As part of the Utility Report, an Information of Fire Flow Availability Request (IFFAR) was submitted to LADWP to determine available fire hydrant flow from the two existing fire hydrants as well as the two proposed fire hydrants. Based on the completed IFFAR (see Attachment A of the Utility Report), the two existing fire hydrants as well as the two proposed fire hydrants flowing simultaneously are able to deliver combined flows of 6,000 gpm, which would meet the minimum fire flow requirement of 6,000 gpm. Therefore, based on the IFFAR, there is adequate fire flow available for the Project to comply with the fire flow requirements identified in accordance with LAMC Section 57.507.3.1.

In addition, a Service Advisory Report (SAR) was submitted to LADWP to determine if the existing domestic water infrastructure would meet the Project's demands for fire and domestic water use. Based on the results of the SAR (see Attachment A of the Utility Report), LADWP has indicated that the existing infrastructure would need to be upgraded

in order to adequately serve the proposed development. Specifically, as discussed above, the existing 4-inch line in Bellwood Avenue would be abandoned and replaced with an 8-inch line approximately 250 feet in length within the easterly drive aisle of Bellwood Avenue and approximately 213 feet of a new 8-inch line in the westerly drive aisle of Bellwood Avenue. The two new 8-inch lines would tie into the existing 12-inch main in Olympic Boulevard. These upgrades, identified by LADWP as a part of the SAR, would ensure adequate water capacity is provided for the Project. In addition, LADWP provided a will-serve letter confirming that water service would be available for the Project (see Attachment C of the Utility Report).

Based on the above, operation of the Project would not result in significant environmental effects associated with the construction of expanded water facilities. Therefore, the Project's operational impacts to water infrastructure would be less than significant.

(2) Mitigation Measures

Project-level impacts related 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 or included, and the impact level remains less than significant.

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

(1) Impact Analysis

(a) Construction

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 to Project buildout). 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 25,941 gpd of the Project's net new water consumption at buildout provided in Table IV.K.1-4 on page IV.K.1-28.[76] Furthermore, as concluded in LADWP's 2015 UWMP, projected water demand for the City would be met by the available supplies during an average year, single-dry year, and multiple-dry year in each year from 2020 through 2040. Project construction is anticipated to begin in 2021 and to be completed in 2023. 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 and reasonably foreseeable future development during normal, dry, and multiple dry years. Therefore, the Project's construction-related impacts on water supply would be less than significant.

(b) Operation

As described in Section II, Project Description, of this Draft EIR, the Project would remove the existing uses on the Project Site to develop 192 senior housing residential units, including 71 senior-independent dwelling units, 75 assisted living guest rooms, and 46 memory care guest rooms. Based on the size of the land uses and the Project's resulting estimated water demand, the Project is not subject to the requirements of SB 610 regarding preparation of a WSA.

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.K.1-4, when accounting for the removal of existing uses, the Project would result in a net average daily water demand of approximately 25,941 gpd, or approximately 29.1 AFY. This is a conservative calculation as it does not account for water conservation measures such as the mandatory indoor water reduction rates required by the City of Los Angeles Green Building Code.

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[76] *Based on the site disturbance area and size of the Project Site, construction activities are estimated to generate a peak water demand value of 1,000 GPD associated with earthwork activities, dust control, and concrete placement. Refer to the Utility Report provided in Appendix J, of this Draft EIR.*

LADWP's 2015 UWMP forecasts adequate water supplies to meet all projected water demands in the City for normal, single-dry, and multiple-dry years through the year 2040. Furthermore, as outlined in their 2015 UWMP, LADWP is committed to providing a reliable water supply for the City. LADWP's 2015 UWMP takes into account 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.[77] LADWP's 2015 UWMP also furthers the goals of the City's Executive Directive and L.A.'s Green New Deal. LADWP's 2015 UWMP also addresses the current and future SWP supply shortages and concludes that MWD's actions in response to the threats to the SWP would ensure continued reliability of its water deliveries. By focusing on demand reduction and alternative sources of water supplies, LADWP would further ensure that long-term dependence on MWD supplies will not be exacerbated by potential future shortages.[78] Additionally, as described above, water conservation and recycling will play an increasing role in meeting future water demands in the City.

LADWP's 2015 UWMP utilized SCAG's RTP data that provide for comprehensive water demand forecasts, taking into account changes in population, housing units and employment.[79] As discussed in Section VI, Other CEQA Considerations, of this Draft EIR, based on the generation rates used in the City of Los Angeles VMT Calculator , the Project would generate approximately 231 new residents[80], 192 new households, and approximately 88 employees[81] at Project buildout in 2023, and would be consistent with SCAG's 2016-2040 RTP/SCS growth projections for the City of Los Angeles Subregion. Per the 2016–2040 RTP/SCS, the estimated 231 new residents generated by the Project would represent approximately 0.21 percent of the population growth forecasted by SCAG

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[77] *LADWP, 2015 Urban Water Management Plan, June 2016, p. ES-1 through ES-30.*

[78] *Ibid.*

[79] *The demand projections in LADWP's 2015 Urban Water Management Plan are based on demographic growth projections in SCAG's 2012–2035 RTP/SCS, the 2000 U.S. Census data and the 2010 U.S. Census data. Since preparation of LADWP's 2015 Urban Water Management Plan, new growth forecasts have become available in SCAG's 2016–2040 RTP/SCS and SCAG's 2020–2045 RTP/SCS. However, the growth forecasts in SCAG's 2016–2040 RTP/SCS and 2020–2045 RTP/SCS only marginally higher than the 2012–2035 RTP/SCS. Therefore, the growth forecasts of the 2016–2040 RTP/SCS and 2020–2045 RTP/SCS would not significantly affect water demand projections.*

[80] *Refer to the VMT calculation worksheets included in the Transportation Study provided in Appendix H. The VMT Calculator assumption of 231 Project residents is more conservative in evaluating VMT per capita; however, if full occupancy of the Project is assumed with one person per bedroom, the Project could generate up to 244 residents, which would represent approximately 0.22 percent of SCAG's projected population growth for the City of Los Angeles Subregion between 2019 and 2023 as compared to approximately 0.21 percent. As such, it would be well within SCAG's projections for the City of Los Angeles Subregion, and the conclusions of the analysis would remain the same.*

[81] *Refer to the VMT calculation worksheets included in the Transportation Study provided in Appendix H.*

in the City of Los Angeles Subregion between 2019 and 2023, the Project's estimated 192 new households would constitute approximately 0.37 percent of the household growth forecasted between 2019 and 2023, and the Project's estimated 88 employees would constitute approximately 0.13 percent of the employment growth forecasted between 2019 and 2023.[82]

Per the 2020–2045 RTP/SCS, the estimated 231 new residents generated by the Project would represent approximately 0.20 percent of the population growth forecasted by SCAG in the City of Los Angeles Subregion between 2019 and 2023, the estimated 192 new households would constitute approximately 0.33 percent of the household growth forecasted between 2019 and 2023, and the estimated 88 employees would constitute approximately 0.22 percent of the employment growth forecasted between 2019 and 2023.[83] As such, the Project would be well within SCAG's projections for the City of Los Angeles Subregion.

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[82] *Based on a linear interpolation of SCAG's 2012–2040 data. The 2019 values for population, housing, and employment are calculated using SCAG's 2012 and 2040 values to find the average increase between years and then applying that annual increase to each year until 2019.*

Population growth between 2019 (4,036,475 persons) and 2023 (4,145,604 persons) is approximately 109,129 persons. The Project's 231 new residents would represent approximately 0.21 percent of this growth [(231 ÷ 109,129) × 100 = 0.211].

Household growth between 2019 (1,416,700 households) and 2023 (1,468,814 households) is approximately 52,114 households. The Project's 192 new households would represent approximately 0.37 percent of this growth [(192 ÷ 52,114) × 100 = 0.368].

Employment growth between 2019 (1,814,575 jobs) and 2023 (1,882,104 jobs) is approximately 67,529 jobs. The Project's 88 new employees would represent approximately 0.13 percent of this growth [(88 ÷ 67,529) × 100 = 0.130].

[83] *Based on a linear interpolation of SCAG's 2016–2045 data. The 2019 values for population and housing are calculated using SCAG's 2016 and 2045 values to find the average increase between years and then applying that annual increase to each year until 2019.*

Population growth between 2019 (4,020,438 persons) and 2023 (4,135,955 persons) is approximately 115,517 persons. The Project's 231 new residents would represent approximately 0.20 percent of this growth [(231 ÷ 115,517) × 100 = 0.199]. As noted above the VMT Calculator assumption of 231 Project residents is more conservative in evaluating VMT per capita; however, if full occupancy of the Project is assumed with one person per bedroom, the Project could generate up to 244 residents, which would represent approximately 0.21 percent of SCAG's projected population growth for the City of Los Angeles Subregion between 2019 and 2023 as compared to approximately 0.20 percent. As such, it would be well within SCAG's projections for the City of Los Angeles Subregion, and the conclusions of the analysis would remain the same.

Household growth between 2019 (1,411,069 households) and 2023 (1,469,828 households) is approximately 58,759 households. The Project's 192 new households would represent approximately 0.33 percent of this growth [(192 ÷ 58,759) × 100 = 0.326].

(Footnote continued on next page)

Based on the above, the Project's net water demand of 25,941 gpd (approximately 29.1 AFY) has been accounted for in the City's overall total demand projections set forth in its 2015 UWMP. Specifically, the 2015 LADWP UWMP forecasts adequate water supplies to meet all projected water demands in the City through the year 2040 during average years, single-dry years, and multiple-dry years. Therefore, the increase in water demand for the Project falls within the available and projected water supplies during an average year, single-dry year, and multiple-dry year through the year 2040, as well as the intervening years (i.e., 2023), as described in the 2015 LADWP UWMP.

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 impacts on water supply would be less than significant.

(2) Mitigation Measures

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

(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 or included, and the impact level remains less than significant.

e. Cumulative Impacts

(1) Impact Analysis

The Project, in conjunction with growth forecasted in the City through 2023 (i.e., the Project's buildout year), would cumulatively increase the demand for water, thus potentially resulting in cumulative impacts on water supplies and water infrastructure. Cumulative growth in the Project Site vicinity through 2023 includes specific known development projects as well as general ambient growth projected to occur. As discussed in Section III, Environmental Setting, of this Draft EIR, the projected growth reflected by Related Project Nos. 1 through 6 is a conservative assumption, as some of the related projects may not be built out by 2023, may never be built, or may be approved and built at reduced densities.

Employment growth between 2019 (1,878,052 jobs) and 2023 (1,917,721 jobs) is approximately 39,669 jobs. The Project's 88 new employees would represent approximately 0.22 percent of this growth [(88 ÷ 39,669) × 100 = 0.221].

To provide a conservative forecast, the future baseline forecast assumes that Related Project Nos. 1 through 6 are fully built out by 2023, unless otherwise noted.

(a) Water Infrastructure

The geographic context for the cumulative impact analysis on water infrastructure is the vicinity of the Project Site (i.e., the water infrastructure that would serve the Project and related projects). Development of the Project and future new development in the vicinity of the Project Site would cumulatively increase demands on the existing water infrastructure system. However, as with the Project, other new development projects would be subject to LADWP review to ensure that the existing public infrastructure would be adequate to meet the domestic and fire water demands of each project, and individual projects would be subject to LADWP and other City requirements regarding infrastructure improvements needed to meet respective water demands, flow and pressure requirements, etc. Furthermore, to ensure its infrastructure is sufficient to meet ongoing demand, LADWP will continue to implement its $6.3 billion five-year Water System capital improvement plan, which includes replacement of distribution mainlines, trunk lines, large valves, and water meters, as well as ongoing maintenance and rehabilitation of facilities such as pump stations, pressure regulators, and in-city reservoirs and tanks.[84] In addition, in accordance with City requirements, prior to ground disturbance, related projects would also coordinate with LADWP to identify the locations and depths of all lines. Furthermore, 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. **Therefore, the Project and related projects would not result in significant cumulative impacts related to the construction or expansion of water infrastructure. As such, the Project's contribution would not be cumulatively considerable, and cumulative 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 water supplies to serve existing and projected demands. LADWP's 2015 UWMP accounts for existing development within the City, as well as projected growth through the year 2040. Additionally, under the provisions of Senate Bill 610, LADWP is required to prepare a comprehensive WSA for every new development "project" (as defined by Section 10912 of the Water Code) within its service

[84] *LADWP, 2018–19 Water Infrastructure Plan, revised November 2019.*

area that reaches certain thresholds. The WSA for such projects would evaluate the quality and reliability of existing and projected water supplies, as well as alternative sources of water supply and measures to secure alternative sources if needed.

The estimated water demand of the related projects is shown in Table IV.K.1-5 on page IV.K.1-39. As shown therein, the related projects would generate a total average water demand of approximately 358,540 gpd (401.6 AFY). The estimate of the related projects' water demand is conservative as it does not account for water conservation measures such as the mandatory indoor water reduction rates required by the City of Los Angeles Green Building Code or the water demand of the existing uses on related project sites that the related projects may remove. The related projects' demand combined with the Project's net increase in water demand of 25,941 gpd (approximately 29.1 AFY) would result in a cumulative increase in average daily water use of approximately 384,481 gpd (430.7 AFY).

As previously stated, based on water demand projections through 2040 in LADWP's 2015 UWMP, LADWP determined that it will be able to reliably provide water to its customers through the year 2040, as well as the intervening years (i.e., 2023, the Project's buildout year) based on demographic growth projections in SCAG's 2012–2035 RTP/SCS[85], which includes the Project and related projects. Based on the 2015 LADWP UWMP water demand forecasts, it is anticipated that the LADWP's water demand in 2023 would be approximately 631,550 gpd (approximately 707.4 AFY).[86] The related projects' demand combined with the Project's net increase in water demand of 25,941 gpd (approximately 29.1 AFY) would result in a cumulative increase in average daily water use of approximately 384,481 gpd (430.7 AFY), or 0.07 percent of LADWP's projected demand of 631,550 AFY in 2023.

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

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[85] *Since preparation of the 2015 Urban Water Management Plan, new growth forecasts have become available in SCAG's 2016–2040 and 2020–2045 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS). However, the 2016–2040 and 2020–2045 RTP/SCS forecasts are only marginally higher than the 2012 forecasts, in terms of current estimates and future projections and would, therefore, not significantly affect water demand projections.*

[86] *LADWP, 2015 Urban Water Management Plan, Exhibit 2L, Water Demand Forecast with Passive Conservation Savings from Codes, Ordinances, and Conservation Phases for LADWP Service Area. Based on a straight-line interpolation of the projected demand for 2020 (approximately 611,815 AFY) and 2025 (approximately 644,706 AFY). The 2023 value is extrapolated from 2020 and 2025 values: [(644,706 AFY – 611,815 AFY) ÷ 5) * 3] + 611,815 = ~ 631,550 AFY.*

Table IV.K.1-5
Cumulative Water Demand

No.	Project	Land Use	Size	Generation Rate[a,b]	Water Demand (gpd)
1	Westfield Century City New Century Plan Project 10250 Santa Monica Boulevard, 1801 Avenue of the Stars, and 1930 Century Park West Street	Condominiums	262 du	190 gpd/du	49,780
		Shopping Center	358,881 sf	0.05 gpd/sf	17,944
2	Century City Center[c] 1950 S. Avenue of the Stars	Office	725,830 sf	0.12 gpd/sf	87,100
		Retail	4,120 sf	0.025 gpd/sf	103
		Mobility Hub	1,300 sf	—	—
3	Apartments 10306 W. Santa Monica Boulevard	Apartments	116 du	190 gpd/du	22,040
4	Century Plaza (Hyatt Regency Hotel) 2025 S. Avenue of the Stars	Condominiums	193 du	190 gpd/du	36,670
		Hotel	240 rm	120 gpd/rm	28,800
		Office	117,647 sf	0.12 gpd/sf	14,118
		Retail	93,814 sf	0.025 gpd/sf	2,345
		Spa/Fitness[d]	16,800 sf	0.65 gpdsf	10,920
		Restaurant (15,463 sf)[e]	516 seat	30 gpdseat	15,480
5	Apartments 10400 W. Santa Monica Boulevard	Apartments	96 du	190 gpd/du	18,240
6	Fox Studios Master Plan 2016 10201 W. Pico Boulevard	Commercial (may include creative office, specialty space, stage space, and facility and utility support)	1,100,000 sf	0.05 gpd/sf	55,000
Related Projects Water Demand					**358,540**
Project Net Water Demand					**25,941**
Total Water Demand for Related Projects and Project					**384,481**

Table IV.K.1-5 (Continued)
Cumulative Water Demand

No.	Project	Land Use	Size	Generation Rate[a,b]	Water Demand (gpd)

du = dwelling units

gpd = gallons per day

rm = rooms

sf = square feet

[a] *This analysis is based on sewage generation rates provided by LASAN's Sewerage Facilities Charge, Sewage Generation Factor for Residential and Commercial Categories, effective April 6, 2012.*

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

[c] *The related project information reflects the modified Century City Center project that was entitled in January 2015 as part of the Final Subsequent Environmental Impact Report. An alternative residential project, which proposes the development of 483 dwelling units, was also entitled for this site. Based on 2012 LASAN Sewer Generation Rates, the proposed alternative would generate a water demand of approximately 91,770 gpd, as compared to the 87,203 gpd shown above. Based on water demand projections through 2040 in LADWP's 2015 UWMP, LADWP determined that it will be able to reliably provide water to its customers through the year 2040, as well as the intervening years based on the growth projections in SCAG's RTP/SCS. Therefore, it is anticipated LADWP would be able to supply the additional demands of the alternative residential project.*

[d] *The rate of 650 gallons per 1,000 square feet for "Health Club/Spa" is applied.*

[e] *Restaurant space is assumed to be all full-service restaurant and assumed to be equivalent to 30 sf per seat for a conservative estimate.*

Source: Gibson Transportation Consulting, Inc., 2020; Eyestone Environmental, 2021.

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 will be met.

Overall, as discussed above, the 2015 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 2015 UWMP specifically outlined the creation of sustainable sources of water for the City to reduce dependence on imported supplies. LADWP's 2015 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.[87] To increase recycled water use, LADWP is expanding the recycled water distribution system to provide water for irrigation, industrial use, and groundwater recharge.[88] Furthermore, LADWP will continue to update its UWMP every five years to ensure that water supply continues to be available.

Based on the above analysis, it is anticipated that LADWP would be able to meet the water demands of the Project and future growth through 2023 and beyond. Therefore, the Project and related projects would not result in significant cumulative impacts related to water demand. As such, the Project's contribution would not be cumulatively considerable, and cumulative 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.

(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 or included, and the impact level remains less than significant.

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

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