
4.9 Utilities

4.9.1 Water Supply

4.9.1.1 Introduction

The water supply evaluation addresses anticipated water consumption associated with the proposed Project and associated impacts to water supply. Components of the proposed Project that would use water include construction activities; operation of Concourse 0, Terminal 9, and associated facilities, including the new APM station and Terminal 9 parking facility; and Project-related landscaping. Operation of the proposed airfield and roadway improvements would not consume water. This section also addresses whether the proposed Project would require or result in the relocation or construction of new or expanded water facilities, the construction or relocation of which could cause significant environmental effects.

4.9.1.2 Methodology

An estimate of the water demand of the proposed Project was developed by the Los Angeles Department of Water and Power (LADWP) as part of a Water Supply Assessment (WSA) prepared for the proposed Project (provided in **Appendix H**). The purpose of the WSA was to determine whether water demand associated with the proposed Project could be met by LADWP. The methodology used by LADWP for calculating Project-related water demand is outlined in the WSA. As described in the WSA, the methodology estimated water demand by applying factors to new building and landscaped area and then adjusting the factors to account for water conservation efforts and efficiencies from appliance and fixture types. LADWP's calculations of indoor water use were based on sewer generation factors published by the City of Los Angeles Department of Public Works, Bureau of Sanitation (LASAN); outdoor landscape water demand was estimated per California Code of Regulations' Model Water Efficient Landscape Ordinance.¹ Based on the estimated water demand in the WSA, the potential for the proposed Project to require or result in the relocation or construction of new or expanded water facilities, such as pipelines, was evaluated in this Draft EIR.

4.9.1.3 Existing Conditions

4.9.1.3.1 Regulatory Setting

4.9.1.3.1.1 State

Urban Water Management Planning Act

The State of California's Urban Water Management Planning Act of 1984² requires all public water suppliers that provide municipal and industrial water to more than 3,000 customers, or supply more than 3,000 acre-feet per year (AF/Y) of water, to prepare and adopt an Urban Water Management Plan (UWMP). The UWMP must be prepared every five years and submitted to the Department of Water Resources (DWR) for review. An UWMP is intended to forecast future water demand and supply under normal and dry conditions. The Urban Water Management Planning Act has been modified several times in response to water shortages, droughts, and other factors. The Water Conservation Act of 2009

¹ California Code of Regulations, Title 23, Division 2, *Chapter 2.7, Model Water Efficient Landscape Ordinance*. Available: [https://govt.westlaw.com/calregs/Browse/Home/California/CaliforniaCodeofRegulations?guid=I55B69DB0D45A11DEA95CA4428EC25FA0&originationContext=documenttoc&transitionType=Default&contextData=\(sc.Default\)](https://govt.westlaw.com/calregs/Browse/Home/California/CaliforniaCodeofRegulations?guid=I55B69DB0D45A11DEA95CA4428EC25FA0&originationContext=documenttoc&transitionType=Default&contextData=(sc.Default)).

² California Water Code, Sections 10610-10656, Urban Water Management Planning.

amended the Urban Water Management Planning Act to call for a statewide reduction of 20 percent in urban water use by the year 2020. An amendment in 2014 requires water suppliers to provide narrative descriptions of their water demand management measures and water shortage contingency plans.

Senate Bill 606 and Assembly Bill 1668

Senate (SB) 606 and Assembly Bill (AB) 1668 provide complementary authorities and requirements regarding water conservation, and were approved as a package by Governor Brown on May 31, 2018.

SB 606 adds new requirements to the Urban Water Management Planning Act, with key provisions that require UWMPs to incorporate a drought risk assessment, and urban water suppliers to prepare a water shortage contingency plan and perform an annual water demand and supply assessment.

AB 1668 requires the State Water Resources Control Board, in coordination with the Department of Water Resources, to adopt long-term standards for the efficient use of water, and performance measures for commercial, industrial, and institutional water use on or before June 30, 2022.

Senate Bill 610

SB 610, which includes amendments to Sections 10910–10915 of the State Water Code, requires a lead agency to request a WSA from the local water supplier prior to approval of projects that are subject to CEQA and meet the following criteria:

- a proposed residential development of more than 500 dwelling units;
- a proposed shopping center or business establishment of more than 500,000 square feet of floor space or employing more than 1,000 persons;
- a proposed commercial office building of more than 250,000 square feet of floor space or employing more than 1,000 persons;
- a proposed hotel or motel of more than 500 rooms;
- a proposed 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;
- a mixed-use project that falls in one or more of the above-identified categories; or
- a project not falling in one of the above-identified categories but that would demand water equal to or greater than the amount required by a 500-dwelling unit project.

A WSA is intended to indicate that the supplier has existing or planned water supplies adequate to meet the demands of the proposed project, and shall be incorporated into the Draft EIR for the project. LADWP prepared and adopted a WSA for the proposed Project (see **Appendix H**).

Sustainable Groundwater Management Act

The Sustainable Groundwater Management Act, passed in 2014, provides local agencies with the authority to adopt groundwater management plans. The Act requires the formation of local groundwater sustainability agencies that would develop and implement plans to achieve long-term groundwater sustainability.

The Water Replenishment District (WRD) of Southern California was created with authority for the West Coast Groundwater Basin, which underlies approximately 160 square miles of coastal Los Angeles County, including the Project area. WRD, in coordination with other basin stakeholders, including LADWP, developed the Groundwater Basins Master Plan (GBMP) to guide the use and maintenance of the West

Coast and Central groundwater basins. The GBMP identifies opportunities to develop supplemental replenishment water supplies in order to reduce imported water use.³

LADWP also owns groundwater rights in the San Fernando, Sylmar, and Eagle Rock basins for which the Upper Los Angeles River Area Watermaster is the groundwater sustainability agency.

Green Buildings Standards

The 2019 California Green Building Standards Code (CALGreen) is found in Part 11, Title 24 of the California Code of Regulations.⁴ The purpose of CALGreen is to “improve public health, safety, and general welfare through enhanced design and construction of buildings using concepts which reduce negative impacts and promote those principles which have a positive environmental impact and encourage sustainable construction practices.”⁵ CALGreen identifies mandatory building efficiency and conservation measures and voluntary measures that may be incorporated into the design of buildings. Relative to water usage, CALGreen requires that every new building constructed in California reduce indoor water consumption by 20 percent compared to a typical baseline condition building (as calculated under CALGreen), contains specific requirements for plumbing fixtures, and includes general requirements regarding indoor and outdoor water usage such as separate indoor and outdoor water meters for nonresidential buildings.

4.9.1.3.1.2 Local

City of Los Angeles Urban Water Management Plan

LADWP adopted the City’s 2015 UWMP in June 2016, which serves as a master plan for water supply and resources management consistent with the City’s goals and policy objectives. As indicated in the UWMP, LADWP develops long-term water projections based on growth in water use for the entire service area.⁶ The current UWMP evaluates a water system facing drought conditions and responds to policy actions, such as Mayor Eric Garcetti’s Executive Directive No. 5 Emergency Drought Response, and Sustainable City pLAn, which promotes investment in conservation, recycling, and local source development, and sets a goal of a 25 percent reduction in per capita water use by 2035. The UWMP discusses conservation strategies to help achieve this goal.

L.A.’s Green New Deal

L.A.’s Green New Deal, an update to the Mayor’s 2015 Sustainable City pLAn, contains strategies for the City to increase sustainability and address current and future climate change impact. The Green New Deal sets aspirations for numerous target areas and prioritizes water conservation and local sourcing of water. The Green New Deal identifies the following targets and initiatives related to water supply and conservation:⁷

- Source 70 percent of L.A.’s water locally (from a baseline of 15 percent in fiscal year 2013/2014), and capture 150,000 AF/Y of stormwater by 2035
- Reduce LADWP purchases of imported water by 50 percent from 2013/2014 levels by 2025

³ Water Replenishment District of Southern California, *Groundwater Basins Master Plan – Final Report*, prepared by CH2M in association with RMC Water and Environment, September 2016. Available: https://www.wrd.org/sites/pr/files/GBMP_FinalReport_Text%20and%20Appendices.pdf.

⁴ 24 California Code of Regulations, Part 11, California Building Standards Commission, *2019 California Green Building Standards Code (CALGreen)*. Available: <https://www.dgs.ca.gov/BSC/Resources/Page-Content/Building-Standards-Commission-Resources-List-Folder/CALGreen>.

⁵ California Department of Housing and Community Development, *Homepage: CALGreen Compliance*. Available: <https://www.hcd.ca.gov/building-standards/calgreen/index.shtml>, accessed May 16, 2020.

⁶ City of Los Angeles, Department of Water and Power, *2015 Urban Water Management Plan*, June 2016. Available: https://www.ladwp.com/cs/idcplg?IdcService=GET_FILE&dDocName=QOELLADWP005416&RevisionSelectionMethod=LatestReleased.

⁷ City of Los Angeles, Office of the Mayor, Mayor Eric Garcetti, *L.A.’s Green New Deal: Sustainable City pLAn, 2019*. Available: https://plan.lamayor.org/sites/default/files/pLAn_2019_final.pdf.

- Recycle 100 percent of all wastewater for beneficial reuse by 2035
- Reduce potable water use per capita by 22.5 percent by 2025 and 25 percent by 2035

City of Los Angeles Green Building Code (LAGBC)

In December 2013, the Los Angeles City Council approved Ordinance No. 182,849, which updated Chapter IX of the Los Angeles Municipal Code (LAMC) to incorporate portions of the 2013 CALGreen Code and add other conservation-related measures to the LAGBC for residential and non-residential development. The requirements of the adopted LAGBC, as updated (2017),⁸ apply to new building construction, building renovations, and building additions within the City of Los Angeles. Key measures in the LAGBC include indoor and outdoor water-conserving requirements for new and altered buildings.

Executive Directive No. 25

On February 10, 2020, Los Angeles Mayor Eric Garcetti issued Executive Directive No. 25 to accelerate L.A.'s Green New Deal and adopt new steps and stronger accountability measures to achieve the City's climate objectives.⁹ Regarding water, this directive requires City departments to provide criteria to advance projects that meet the local water goals established in L.A.'s Green New Deal. The Directive also requires LADWP to expedite the replacement of existing water meters with smart meters, among other measures.

One Water LA

In 2018, the City prepared the One Water LA 2040 Plan, which is a comprehensive water resources planning document to guide the City's water resources approach through 2040. The One Water LA 2040 Plan considers all of the City's water resources – from surface water, groundwater, potable water, wastewater, recycled water, dry weather runoff, and stormwater – as "One Water." The Plan includes water management goals, which are aligned with the 2015 UWMP, and identifies opportunities to create integrated water management that helps achieve UWMP goals.¹⁰

LAWA Sustainability Plans and Guidelines

On September 7, 2017, LAWA adopted the Sustainable Design and Construction Policy,¹¹ which requires new buildings and major building renovation projects to achieve a minimum of LEED® Silver certification. New LAWA or tenant building construction and building renovation projects that are not eligible for LEED® certification – such as runways, taxiways, roadways, bridges, surface parking, and stand-alone parking structures – or are exempted by LAWA's Sustainability Review Committee, are required to adhere to LAWA's Sustainable Design and Construction Requirements, which incorporate sustainability concepts from the LEED® system as well as the LAGBC and other airport sustainability guidelines.¹² The Requirements, which are incorporated into the LAWA Design and Construction Handbook (DCH),¹³ establish technical standards for new construction and renovation projects in a number of categories, including water efficiency and conservation. The Sustainable Design and Construction Policy will ensure

⁸ City of Los Angeles, Los Angeles Municipal Code, Chapter IX, Article 9, *Green Building Code*, as amended.

⁹ City of Los Angeles, Office of the Mayor, Mayor Eric Garcetti, *Executive Directive No. 25, Subject: L.A.'s Green New Deal: Leading by Example*, February 10, 2020. Available: <https://www.lamayor.org/sites/g/files/wph446/f/page/file/20200210ExecutiveDirective25.pdf>.

¹⁰ City of Los Angeles, LA Sanitation & Environment and Department of Water and Power, *One Water LA 2040 Plan – Volume 1 Summary Report, Final Draft*, prepared by Carollo, et. al., April 2018. Available: https://www.lacitysan.org/cs/groups/sg_owla/documents/document/y250/mdi2/~edisp/cnt026188.pdf.

¹¹ City of Los Angeles, Los Angeles World Airports, *LAWA Sustainable Design and Construction Policy*, September 7, 2017. Available: <https://www.lawa.org/-/media/lawa-web/tenants411/file/lawa-sustainable-design-and-construction-policy.ashx>.

¹² City of Los Angeles, Los Angeles World Airports, *Los Angeles International Airport Sustainable Design & Construction Requirements*, August 4, 2017. Available: <https://www.lawa.org/-/media/lawa-web/tenants411/file/sustainable-design-construction-requirements.ashx>.

¹³ City of Los Angeles, Los Angeles World Airports, *2020 Design and Construction Handbook (DCH), Version 1.0*, June 30, 2020. Available: <https://www.lawa.org/en/lawa-businesses/lawa-documents-and-guidelines/lawa-design-and-construction-handbook>.

that all projects at LAWA facilities are environmentally responsible and resource-efficient throughout a structure's life-cycle, from siting to design, construction, operation, maintenance, and renovation, reflecting LAWA's commitment to sustainability.

LAWA's *Sustainability Action Plan (SAP)*¹⁴ is a detailed action plan for promoting sustainability to ensure a healthy, prosperous future for the region. The SAP provides sustainability goals and targets for LAX to help meet the City's overall sustainability goals. One focus of the SAP is on water management, leading to efficient operations and reduced water use. Specifically, the SAP identifies a goal to increase reclaimed water use by 35 percent and decrease potable water use by 30 percent by 2035, and to eliminate potable water consumption for non-potable uses such as landscaping and industrial uses by 2045. The SAP includes targets to require new projects to be compatible with the use of reclaimed water unless infeasible and construction projects to use reclaimed water where supply lines exist nearby.

4.9.1.3.2 Environmental Setting

Los Angeles Department of Water and Power (LADWP)

LADWP is responsible for supplying, treating, and distributing water for domestic, industrial, agricultural, and firefighting purposes within the City. The LADWP obtains its water supplies from three major sources: (1) the Owens Valley and Mono Basin via the Los Angeles Aqueduct (LAA); (2) northern California and Colorado River imports purchased from the Metropolitan Water District of Southern California (MWD); and (3) local groundwater basins. In addition, some wastewater within the LADWP service area is recycled for reuse as irrigation or industrial water, or for use in seawater intrusion barriers used to protect groundwater supplies. The average distribution of sources during 2014–2018 was 59 percent purchased from MWD, 27 percent from the LAA, 12 percent from groundwater, and 2 percent from recycled water.¹⁵ Water demand not met by the LAA, groundwater, and recycled water is supplied through LADWP purchases from MWD.

In the early 20th century, LADWP constructed the LAA to import water from the eastern Sierra Nevada. The current capacity of the LAA is 775 cubic feet per second (cfs).¹⁶ Past allocations from LAA have exceeded 400,000 AF/Y. However, due to allocations for environmental restoration obligations, local uses, and other losses, the City of Los Angeles has decreased its LAA supply and uses approximately 43 percent of the total runoff in the Eastern Sierra Nevada in an average year.¹⁷ The available supply is highly dependent on snowfall in the eastern Sierra Nevada; therefore, water delivery from the LAA varies, with greater deliveries in wet years and less in dryer years.

The City also owns groundwater rights in the San Fernando, Sylmar, Eagle Rock, Central, and West Coast Basins totaling approximately 110,000 AF/Y.¹⁸ Water quality constraints have limited the usage of groundwater, although LADWP is engaged in management efforts to maintain future availability.

The City's UWMP includes scenarios for increasing stormwater capture within the City for the purpose of recharging local groundwater basin levels, with a conservative scenario increasing stormwater capture

¹⁴ City of Los Angeles, Los Angeles World Airports, *LAWA Sustainability Action Plan*, 2019. Available: <https://cloud1lawa.app.box.com/s/63i2teszgnld5aws68xbou6yc0inl5rp>.

¹⁵ City of Los Angeles, Department of Water and Power, *Briefing Book 2018-19*. Available: https://www.ladwp.com/cs/idcplg?IdcService=GET_FILE&dDocName=OPLADWPCCB629209&RevisionSelectionMethod=LatestRelease.

¹⁶ One cfs is approximately 724.45 AF/Y.

¹⁷ City of Los Angeles, Department of Water and Power, *2015 Urban Water Management Plan*, June 2016. Available: https://www.ladwp.com/cs/idcplg?IdcService=GET_FILE&dDocName=QOELLADWP005416&RevisionSelectionMethod=LatestReleased.

¹⁸ City of Los Angeles, Department of Water and Power, *2015 Urban Water Management Plan*, June 2016. Available: https://www.ladwp.com/cs/idcplg?IdcService=GET_FILE&dDocName=QOELLADWP005416&RevisionSelectionMethod=LatestReleased.

from the existing 64,000 AF/Y to 132,000 AF/Y, and an aggressive scenario increasing stormwater capture to 178,000 AF/Y by 2035.¹⁹

In fiscal year 2018/2019, LADWP delivered over 34,000 AF/Y of recycled water to end users and for environmental uses.²⁰ The UWMP set a goal of increasing recycled water supply to approximately 75,000 AF/Y by 2040; LADWP is planning to accomplish this by increasing recycled water production and uses. Recycled water in the LAX area is provided by the West Basin Municipal Water District's (WBMWD) Edward C. Little Water Recycling Facility (ECLWRF), some of which is used to irrigate landscaping at LAX.²¹

LADWP maintains a number of potable water lines throughout the area, mostly within street rights-of-way. The most substantial lines in the LAX area are along Century Boulevard and Sepulveda Boulevard. LADWP also maintains recycled water lines that serve the LAX area. These recycled water lines provide reclaimed water to LAX, which uses reclaimed water for landscape irrigation and construction-related dust control.

LAX

In 2018, operations across all of LAX used approximately 478.6 million gallons (1,468.9 AF) of potable water, which is equivalent to approximately 5.5 gallons per passenger. Per capita water consumption at LAX has been declining in recent years; water use per passenger has decreased by almost 47 percent since 2011. The decline in potable water use is due to the installation of low flow fixtures, introduction of drought-tolerant landscaping, and increased use of reclaimed water. Approximately 47 percent of all LAX landscaped areas, or about 50 acres, is irrigated with reclaimed water. In total, over 27.5 million gallons (84.5 AF) of reclaimed water was used in 2018.²²

As discussed above, LAWA has established a goal to increase reclaimed water use by 35 percent and decrease potable water use by 30 percent by 2035. To facilitate this, LAWA is partnering with LADWP and the City's Bureau of Sanitation (LASAN) to provide high-quality reclaimed water to LAX through the construction and operation of the Advanced Water Purification Facility (AWPF) at the HWRP, which will produce reclaimed water that will be conveyed to the Central Terminal Area (CTA) via a new pipeline connection in Pershing Drive.²³ The reclaimed water will meet quality requirements established for domestic use at LAX terminals and industrial use at the Central Utility Plant.²⁴ As part of the LAWA Capital Improvement Program, additional reclaimed water pipelines will be constructed at LAX to facilitate the transfer of recycled water from the City's HWRP. Construction of these reclaimed water pipelines within the CTA will include extensions of the main reclaimed water line, ending with stub-outs at Terminal 1.5 and Terminal 6, which will allow for future connections to the east.

In addition to reclaimed water use for LAX operations, LAX construction projects that are proximate to reclaimed water sources at LAX use reclaimed water for dust control.

¹⁹ City of Los Angeles, Department of Water and Power, *2015 Urban Water Management Plan*, June 2016. Available: https://www.ladwp.com/cs/idcplg?IdcService=GET_FILE&dDocName=QOELLADWP005416&RevisionSelectionMethod=LatestReleased.

²⁰ City of Los Angeles, Department of Water and Power, *Recycled Water Annual Report 2018-2019*. Available: <https://www.ladwp.com/ladwp/faces/ladwp/aboutus/a-water/a-w-recycledwater/a-w-rw-annualreport>, accessed February 17, 2020.

²¹ Approximately 47 percent of all LAX landscaped areas, or about 50 acres, is irrigated with reclaimed water.

²² City of Los Angeles, Los Angeles World Airports, *Los Angeles World Airports 2018 Sustainability Report*. Available: <https://cloud1lawa.app.box.com/v/2018-Sustainability-Report>.

²³ City of Los Angeles, Los Angeles World Airports, *LAWA Sustainability Action Plan*, 2019. Available: <https://cloud1lawa.app.box.com/s/63i2teszgnd5aws68xbou6yc0inl5rp>.

²⁴ Los Angeles World Airports, *Report to the Board of Airport Commissioners, SUBJECT: Authorization to Advertise Notice Inviting Bids for the Construction of Recycled Water Extension Project at Los Angeles International Airport*, May 21, 2020. Available: https://lawa.granicus.com/MetaViewer.php?view_id=&event_id=1367&meta_id=42164.

4.9.1.4 Thresholds of Significance

A significant impact related to water supply would occur if the proposed Project would:

Threshold 4.9.1-1 Require or result in the relocation or construction of new or expanded water facilities, the construction or relocation of which could cause significant environmental effects.

Threshold 4.9.1-2 Have insufficient water supplies available to serve the Project and reasonably foreseeable future development during normal, dry, and multiple dry years.

These thresholds are from Appendix G of the State CEQA Guidelines.

4.9.1.5 Project Impacts

4.9.1.5.1 Impact 4.9.1-1

Summary Conclusion for Impact 4.9.1-1: The proposed Project would not require or result in the relocation or construction of new or expanded water facilities, the construction or relocation of which could cause significant environmental effects. This would be a *less than significant impact* for construction and operations.

4.9.1.5.1.1 Construction

Implementation of the proposed Project would include water consumption for various construction-related purposes, including concrete production, equipment cleaning, and activities such as pavement saw-cutting and dust control. Construction of the proposed Project would be in accordance with LAWA's Sustainable Design and Construction Policy, the LAX Sustainable Design and Construction Requirements, and the DCH. The DCH identifies applicable City of Los Angeles building and safety codes, State Water Resources Control Board permits, and other technical specifications for building design and construction as it pertains to water use and water supply systems. The LAX Sustainable Design and Construction Requirements and the DCH both include a requirement for the use of reclaimed water for dust control, as feasible, when those activities are located in proximity to reclaimed water sources.^{25, 26} This requirement is applicable to the proposed airfield improvements, which would be located in proximity to existing reclaimed water supplies, as identified in Chapter 2, *Description of the Proposed Project*.

The proposed Project is located in an urbanized portion of the City of Los Angeles that is well served by water distribution infrastructure. Existing potable water mains, trunk lines, and service lines convey potable water throughout the Project area. Potable water would be provided to Concourse 0 via an existing high-pressure water main near the intersection of Century Boulevard and Sepulveda Boulevard, which currently feeds the CTA. Existing water supply pipelines do not have adequate pressure and capacity to supply water to Terminal 9. There are several options that would result in adequate conveyance pressure and capacity, including extending existing lines east to the Terminal 9 site (via Sepulveda Boulevard/Century Boulevard or 98th Street/Jetway Boulevard) or upgrading existing lines in Century Boulevard to serve the proposed Project. Under either option, the pipeline(s) would be located within existing street rights-of-way and in an area that is currently developed and does not contain any sensitive resources (e.g., cultural resources, biological resources). Moreover, the area where the new or

²⁵ City of Los Angeles, Los Angeles World Airports, *Los Angeles International Airport Sustainable Design & Construction Requirements*, August 4, 2017. Available: <https://www.lawa.org/-/media/lawa-web/tenants411/file/sustainable-design-construction-requirements.ashx>.

²⁶ City of Los Angeles, Los Angeles World Airports, *2020 Design and Construction Handbook (DCH)*, Version 1.0, Chapter 4, Division 1, Subsection 1.5.B, June 30, 2020. Available: <https://www.lawa.org/en/lawa-businesses/lawa-documents-and-guidelines/lawa-design-and-construction-handbook>.

upgraded pipeline(s) would be installed would already be under construction as part of the proposed Project. Therefore, construction of either option would occur as part of the overall construction of the proposed Project and would not result in any new environmental impacts.

As described in Chapter 2, *Description of the Proposed Project*, and illustrated in Figure 2-25 in that chapter, the proposed Project would extend existing or planned reclaimed water lines in the CTA to Concourse 0 and Terminal 9. Air pollutant and greenhouse gas emissions from construction of the pipelines are accounted for in the analyses provided in Section 4.1.1, *Air Quality*, and Section 4.4, *Greenhouse Gas Emissions*, respectively. Construction of the Project-related reclaimed water line extensions would not have any additional environmental impacts, as there are no sensitive resources (e.g., cultural resources, biological resources, noise-sensitive land uses) located along the proposed alignments of the new reclaimed water lines. As a result, the construction of reclaimed water lines from the CTA to Concourse 0 and Terminal 9 would not cause significant environmental effects.

Construction-related impacts related to the relocation or construction of new or expanded water facilities, including for both potable and reclaimed water, would be ***less than significant***.

4.9.1.5.1.2 Operations

As noted in Section 4.9.1.5.1.1, provision of potable water to serve Terminal 9 water demands would require new or upgraded local water pipelines in order to meet the capacity needs. In addition, the proposed Project would extend existing or planned reclaimed water lines in the CTA to Concourse 0 and Terminal 9. As discussed in Section 4.9.1.5.1.1, the construction of potable water extensions and reclaimed water line extensions would not cause significant environmental effects. As a result, this impact would be ***less than significant***.

4.9.1.5.1.3 Mitigation Measures

Because the proposed Project would result in a ***less than significant impact*** related to water distribution facilities, no mitigation is required for construction or operations.

4.9.1.5.1.4 Significance of Impact After Mitigation

As indicated above, no mitigation is required related to water distribution facilities. The proposed Project would result in a ***less than significant impact*** for construction and operations.

4.9.1.5.2 Impact 4.9.1-2

Summary Conclusion for Impact 4.9.1-2: The proposed Project would have sufficient water supplies available to serve the Project and reasonably foreseeable future development during normal, dry, and multiple dry years. This would be a *less than significant impact*** for construction and operations.**

4.9.1.5.2.1 Construction

As discussed above in Section 4.9.1.5.1.1, implementation of the proposed Project would require water for various construction-related purposes, including concrete production, equipment cleaning, and activities such as pavement saw-cutting and dust control. These discrete construction activities would consume water in limited volumes and on an as-needed basis depending on the construction task. For instance, water for saw cutting would only be used during active saw operation and only for tasks that require concrete, stone, or metal cutting, and water for dust control would only be used periodically during active grading operations over uncovered exposed-earth sites.

As noted above and in Chapter 2, *Description of the Proposed Project*, in accordance with the LAX Sustainable Design and Construction Requirements²⁷ and the DCH,²⁸ due to the proximity of the proposed airfield improvements to reclaimed water resources, reclaimed water would be used for dust control during construction of these improvements, when feasible based on proximity to reclaimed water sources. Use of reclaimed water during construction would reduce potable water use.

As discussed below in Section 4.9.1.5.2.2, LADWP has indicated that water supply is available to meet the long-term demand of the proposed Project. Since the proposed Project's long-term operational water demand would be greater than the as-needed water use for specific construction activities, sufficient water supplies would be available to supply the construction-related water demand of the proposed Project and impacts would be *less than significant*.

4.9.1.5.2.2 Operations

The proposed Project would generate a demand for potable water at Concourse 0 and Terminal 9 for restrooms, office/operational areas, and commercial program facilities (i.e., concessions); the proposed Automated People Mover (APM) station; Terminal 9 parking facility cleaning; fire water systems; Concourse 0 and Terminal 9 cooling; and landscaping. As described above in Section 4.9.1.3.1.1, there are several state Senate and Assembly bills pertaining to regional water supply planning and analysis, with the most relevant being SB 610, which requires preparation of a WSA to evaluate whether the water demand of individual development projects, along with the other anticipated future regional water demands, can be met by the future regional water supply. LAWA requested that LADWP prepare a WSA for the proposed Project in accordance with the requirements of SB 610, which was completed by LADWP and approved by the Board of Water and Power Commissioners on May 26, 2020 (see **Appendix H**). The WSA estimated the total water demand associated with the proposed Project, accounting for both required water conservation measures and additional water commitments made by LAWA, less existing water consumption associated with facilities that would be removed as part of the proposed Project. Based on these considerations, LADWP estimated that the proposed Project would have a net increase in water demand of 95.3 AF/Y. **Table 4.9.1-1** provides the results of the WSA and identifies the net water demand associated with the proposed Project.

Table 4.9.1-1 Proposed Project Water Usage							
	Quantity	Unit	Water Use Factor ¹ (gpd/unit)	Base Demand (gpd)	Required Water Savings ² (gpd)	Proposed Water Demand	
						gpd	AF/Y
Proposed Project Water Demand³							
Concourse 0							
Airline Facilities	320,760	sf	0.05	16,038			
Department of Homeland Security	158,814	sf	0.05	7,941			
Commercial Program	96,000	sf	0.05	4,800			
Ancillary	6,840	sf	0.05	342			
Building Services	32,760	sf	0.05	1,638			
Circulation	173,280	sf	0.05	8,664			

²⁷ City of Los Angeles, Los Angeles World Airports, *Los Angeles International Airport Sustainable Design & Construction Requirements*, August 4, 2017. Available: <https://www.lawa.org/-/media/lawa-web/tenants411/file/sustainable-design-construction-requirements.ashx>.

²⁸ City of Los Angeles, Los Angeles World Airports, *2020 Design and Construction Handbook (DCH)*, Version 1.0, Chapter 4, Division 1, Subsection 1.5.B, June 30, 2020. Available: <https://www.lawa.org/en/lawa-businesses/lawa-documents-and-guidelines/lawa-design-and-construction-handbook>.

**Table 4.9.1-1
Proposed Project Water Usage**

	Quantity	Unit	Water Use Factor ¹ (gpd/unit)	Base Demand (gpd)	Required Water Savings ² (gpd)	Proposed Water Demand	
						gpd	AF/Y
Office	487,146	sf	0.12	58,458			
Base Demand Adjustment (Concourse 0) ⁴				4,692			
Concourse 0 Total	1,275,600	sf		102,573	68,804	33,769	37.83
Terminal 9							
Airline Facilities	332,316	sf	0.05	16,616			
Department of Homeland Security	219,912	sf	0.05	10,996			
Commercial Program	114,720	sf	0.05	5,736			
Office	159,444	sf	0.12	19,133			
Ancillary	12,960	sf	0.05	648			
Building Services	56,460	sf	0.05	2,823			
Circulation	517,788	sf	0.05	25,889			
Automated People Mover Station	59,400	sf	0.05	2,970			
Base Demand Adjustment (Terminal 9) ⁴				1,200			
Terminal 9 Total	1,473,000	sf		86,011	71,710	14,301	16.02
Other Project Components							
Terminal 9 Parking Facility ⁵	700,000	sf	0.02	460	0	460	0.52
Cooling Tower Terminal 9 ⁶	2,333	ton	36	83,148	16,630	66,518	74.51
Landscaping ⁷	4,000	sf		374	168	206	0.23
Other Project Components Total				83,982	16,798	67,184	75.26
Total Proposed Project Water Demand				272,566	157,312	115,254	129.11
Existing Water Use Associated with Facilities to be Removed³							
Existing Uses to be Removed ^{8,9}	306,580	sf	0.05			15,329	17.17
Net Additional Project-Related Water Demand							
Proposed Project Water Demand				272,566	157,312	115,254	129.11
Less Existing Uses to be Removed						-15,329	-17.17
Less Additional Conservation ⁹						-14,866	-16.65
Net Additional Project-Related Water Demand						85,059	95.29
Source: City of Los Angeles, Department of Water and Power, Water Resources Division, <i>Water Supply Assessment for the Los Angeles International Airport Airfield and Terminal Modernization Project</i> , May 26, 2020 (Appendix H of this EIR).							
Notes:							
¹ Proposed indoor water uses are based on 2012 City of Los Angeles Department of Public Works, Bureau of Sanitation Sewer Generation Rates table.							
² The proposed Project land uses would be required to conform to City of Los Angeles Ordinance No. 184248, 2013 California Plumbing Code, 2013 California Green Building Code (CALGreen), 2014 Los Angeles Plumbing Code, and 2014 Los Angeles Green Building Code.							
³ Provided to LADWP by Los Angeles World Airports in the Request for Water Supply Assessment letter and Scope Confirmation e-mail. See Appendix A of the WSA included in Appendix H .							
⁴ Base Demand Adjustment is the estimated savings due to Ordinance No. 180822 accounted for in the current version of Bureau of Sanitation Sewer Generation Rates.							

**Table 4.9.1-1
Proposed Project Water Usage**

	Quantity	Unit	Water Use Factor ¹ (gpd/unit)	Base Demand (gpd)	Required Water Savings ² (gpd)	Proposed Water Demand	
						gpd	AF/Y
⁵	It is assumed that the Terminal 9 parking facility would be a covered parking facility. Auto parking water uses are based on City of Los Angeles Department of Public Works, Bureau of Sanitation Sewer Generation Rates table, assuming cleaning 12 times/year.						
⁶	Assumed to operate 24 hours/day, 7 days/week at 55 percent of chiller capacity.						
⁷	Landscaping water use is estimated per California Code of Regulations Title 23, Division 2, Chapter 2.7, Model Water Efficient Landscape Ordinance.						
⁸	Estimated based on 2012 City of Los Angeles Department of Public Works, Bureau of Sanitation Sewer Generation Rates table.						
⁹	Uses to be removed are described in Chapter 2, <i>Description of the Proposed Project</i> .						
¹⁰	Water conservation due to additional conservation commitments by Los Angeles World Airports. See Appendix H .						
Key:							
sf- square feet; gpd - gallons per day; AF/Y - acre feet per year							

In addition to conforming to code requirements, as described in LAWA's water conservation commitment letter for the proposed Project to LADWP (see Appendix B of the WSA in **Appendix H**) and in Chapter 2, *Description of the Proposed Project*, LAWA has committed to implement the following water conservation measures that are in addition to those required by codes and ordinances:

- High efficiency dual-flush toilets with a flush volume of 1.12 gallons per flush or less;
- Urinals with 0.11 gallons per flush;
- ENERGY STAR-certified residential dishwashers, if feasible, standard or compact with 3.5 gallons/cycle or less;
- Individual sub-metering for domestic water system for each building with the option for future remote data gathering connection;
- Extension of reclaimed water piping to Concourse 0 and Terminal 9 to enable the use of reclaimed water where appropriate;
- Drip subsurface irrigation (micro-irrigation) for landscaping; and
- Drought-tolerant plants for 15 percent of total Project-related landscaping, with the remaining 85 percent consisting of mulch, sand, and other drought-tolerant landscaping elements.

In addition, as noted in Chapter 2, *Description of the Proposed Project*, Concourse 0 and Terminal 9 would be designed to be compatible with the use of reclaimed water per LAWA design protocols. Incorporation of these commitments would result in a saving of 16.65 AF/Y of potable water (see Table 4.9.1-1).

On May 26, 2020, the Board of Water and Power Commissioners adopted the WSA, which concluded that (1) Project-related water demand has been accounted for in the City's overall total demand projections in the City's 2015 UWMP; (2) anticipated water demand for the Project falls within LADWP's 2015 UWMP projected water supplies for normal, single-dry, and multiple-dry years through the year 2040 and is within the LADWP 2015 UWMP's 25-year water demand growth projection; and (3) LADWP has adequate water supplies to meet the proposed water demand of the Project (see **Appendix H**).

Because sufficient water supplies would be available to supply the proposed Project and reasonably foreseeable future development during normal, dry, and multiple dry years, impacts on regional water supply from the proposed Project would be ***less than significant***.

4.9.1.5.2.3 Mitigation Measures

Because the proposed Project would result in a ***less than significant impact*** on regional water supply, no mitigation is required for construction or operations. However, it should be noted that a mitigation measure recommended to reduce greenhouse gas emissions, MM-GHG (ATMP)-5: Landscaping Water, would also reduce potable water consumption by requiring the use of only non-potable water for on-airport landscaping associated with the proposed Project (see Section 4.4, *Greenhouse Gas Emissions*).

4.9.1.5.2.4 Significance of Impact After Mitigation

As indicated above, no mitigation is required related to regional water supply. The proposed Project would result in a ***less than significant impact*** for construction and operations.

4.9.1.6 Cumulative Impacts

The geographical area of the cumulative impacts analysis for the City's water supply and distribution system is the City of Los Angeles, which is the water supply area served by LADWP. Future water demand projected by LADWP in its 2015 UWMP is cumulative in nature and takes into account long-term demographic projections for population, housing, and employment within the City of Los Angeles. LADWP's 2015 UWMP does not identify specific projects, but bases the water demand forecasting on long-term trends in demographics, socioeconomics, conservation, weather, and non-revenue water consumption; consequently, the 2015 UWMP water demand forecasting includes LAX and LAX projects. As described in Section 4.9.1.3.1.1, there are several state Senate and Assembly bills pertaining to regional water supply planning and analysis, in particular SB 610, which require that the water demands of individual development projects be evaluated within a regional context so that cumulative water demands (i.e., the water demands of a proposed project along with the anticipated water demands of other existing and proposed development within the service area of the water purveyor) can be met by the future water supply.

As concluded in Section 4.9.1.5.1, Project-related water demand during construction and operation would not require or result in the relocation or construction of new or expanded water facilities. Therefore, proposed Project impacts on water facilities would be less than significant. However, as part of the proposed Project, potable water pipelines would be extended or upgraded to serve Terminal 9 and reclaimed water pipelines would be extended from planned stub-outs in the CTA to Concourse 0 and Terminal 9. As described in Section 4.9.1.5.1, construction of these pipelines would not cause significant environmental effects. As concluded in Section 4.9.1.5.2, sufficient water supplies would be available to supply the proposed Project and reasonably foreseeable future development during normal, dry, and multiple dry years. Therefore, proposed Project impacts on regional water supply would be less than significant.

The cumulative project that would result in the construction of new or expanded water facilities is the construction of potable and reclaimed water pipelines within and to the CTA, including the pipelines associated with the AWP. Many of the segments of the planned reclaimed water pipelines would be construction in conjunction with ongoing construction projects at LAX; therefore, no new impacts would result from construction of these segments. With respect to new construction, as noted in Section 4.9.1.5.1, there are no sensitive resources within the CTA that would be adversely affected by construction of reclaimed water pipelines (e.g., cultural resources, biological resources, noise-sensitive land uses). Therefore, cumulative impacts from construction of reclaimed water pipelines associated with the proposed Project and construction of other planned potable and reclaimed water pipelines at LAX would be ***less than significant***.

The cumulative projects that would contribute to water demand in conjunction with the proposed Project are the LAX Northside Development; the LAX Landside Access Modernization Program; various terminal improvement projects including the Midfield Satellite Concourse (MSC) South Project, Terminal 2/Terminal 3 Modernization Project, Terminal 4 Modernization Project, and Terminal 6 Renovation; the Airport Metro Connector 96th Street Transit Station; and ancillary airport facilities such as the LAX Airfield Bus Yard Facility. The Board of Water and Power Commissioners adopted a WSA for the LAX Landside Access Modernization Program which concluded that LADWP has sufficient water supply to meet the project demands of that project.²⁹ Environmental documents prepared for several of the other projects, including the LAX Northside Development, MSC South Project, Terminal 2/Terminal 3 Improvement Project, and the Airport Metro Connector 96th Street Transit Station, determined that project-related water demands were accounted for in the UWMP that was current at the time the documents were prepared.^{30, 31, 32, 33} No water supply impacts were identified for the remaining cumulative projects.

LADWP's WSA for the proposed Project evaluates the water demand of the proposed Project cumulatively with other known projects in LADWP's service area, using long-term demographic projections for population, housing, and employment from the 2015 UWMP. Additionally, the water supply planning requirements of SB 610 provide an additional means of confirming that the cumulative future water demands of individual development projects can be met by planned water supplies. Therefore, the evaluation conducted by LADWP for the proposed Project WSA, along with the applicability of SB 610 to other development projects proposed within LADWP's service area, are inherently cumulative in nature. In the approved WSA for the proposed Project (provided in **Appendix H**), LADWP concludes that the proposed Project's water demand can be accommodated based on the water demand projections in the 2015 UWMP when considered cumulatively with other projects within the LADWP service area. Moreover, SB 610 applies to other development projects proposed within LADWP's service area that may not be accounted for in the 2015 UWMP. Based on the findings of the WSA that the proposed Project's water demand can be accommodated, in conjunction with similar analyses for projects not accounted for in the 2015 UWMP, there will be an adequate regional water supply. Therefore, cumulative impacts related to water demand from the proposed Project would be *less than significant*.

4.9.1.7 Summary of Impact Determinations

Table 4.9.1-2 summarizes the impact determinations of the proposed Project related to water supply, as described above in Sections 4.9.1.5 and 4.9.1.6. Impact determinations are based on the significance criteria presented in Section 4.9.1.4, and the information and data sources cited throughout Section 4.9.1.

²⁹ City of Los Angeles, Los Angeles World Airports, *Final Environmental Impact Report for Los Angeles International Airport (LAX) Landside Access Modernization Program*, (SCH 2015021014), Section 4.13 – Utilities and Service Systems, February 2017. Available: <https://www.lawa.org/en/connectinglax/automated-people-mover/documents>.

³⁰ City of Los Angeles, Los Angeles World Airports, *Final Environmental Impact Report for Los Angeles International Airport (LAX) Northside Plan Update*, (SCH 2012041003), Section 4.15 – Utilities and Services, December 2014. Available: <https://www.lawa.org/en/lawa-our-lax/environmental-documents/documents-certified/lax-northside-plan-update/environmental-documents>.

³¹ City of Los Angeles, Los Angeles World Airports, *Final Environmental Impact Report for Los Angeles International Airport (LAX) Midfield Satellite Concourse*, (SCH 2013021020), Appendix A.1 – Initial Study and Distribution List, Section XVII. Utilities and Service Systems, June 2014. Available: <https://www.lawa.org/en/lawa-msc-north/project-documents>.

³² City of Los Angeles, Los Angeles World Airports, *Final Environmental Impact Report for Los Angeles International Airport (LAX) Terminals 2 and 3 Modernization Project*, (SCH 2016081034), Section 6.5.3.4 – Water Supply and Existing Utility Infrastructure in the Project Area, June 2017. Available: <https://www.lawa.org/en/lawa-our-lax/environmental-documents/documents-certified/lax-terminal-2-and-3-modernization>.

³³ Los Angeles County Metropolitan Transportation Authority, *Airport Metro Connector 96th Street Transit Station Draft Environmental Impact Report*, (SCH 2015021009), Chapter 4 – Other CEQA Considerations, June 2016. Available: https://media.metro.net/projects_studies/crenshaw/images/AMC_96th_St_Station_Draft_EIR_2016-6.pdf.

Table 4.9.1-2 Summary of Impacts and Mitigation Measures Associated with the Proposed Project Related to Water Supply			
Environmental Impacts	Impact Determination	Mitigation Measures	Level of Significance After Mitigation
Impact 4.9.1-1: The proposed Project would not require or result in the relocation or construction of new or expanded water facilities, the construction or relocation of which could cause significant environmental effects. This would be a <i>less than significant impact</i> for construction and operations.	Construction: Less than Significant Operations: Less than Significant	No mitigation is required	Construction: Less than Significant Operations: Less than Significant
Impact 4.9.1-2: The proposed Project would have sufficient water supplies available to serve the Project and reasonably foreseeable future development during normal, dry, and multiple dry years. This would be a <i>less than significant impact</i> for construction and operations.	Construction: Less than Significant Operations: Less than Significant	No mitigation is required	Construction: Less than Significant Operations: Less than Significant