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## 4.13.4 Water Supply

### 4.13.4.1 Introduction

The water use analysis addresses potable water demand from passenger-related facilities associated with the SPAS alternatives. As indicated in the revised LAX SPAS EIR Notice of Preparation/Initial Study (October 2010), included as Appendix A, *Notice of Preparation/Scoping*, with the planned expansion of existing reclaimed water production and existing distribution capacity, ample supply and facilities would be available to accommodate the demand for reclaimed water use. Therefore, reclaimed water use is not addressed any further in this section. Water quality is addressed in Section 4.8, *Hydrology/Water Quality*.

### 4.13.4.2 Methodology

This analysis compares the demand for potable water use projected for the SPAS alternatives to baseline water use, and addresses existing and future water supply sources. Although the future passenger activity level associated with each of the SPAS alternatives would be the same (i.e., 78.9 million annual passengers [MAP] in 2025), water use is calculated by applying a generation factor to a building area, as described below. For purposes of this analysis, therefore, water use is estimated for passenger-related facilities (i.e., terminals, passenger processing, and passenger-serving ground access facilities) associated with each of the alternatives.

Total water use for existing and proposed passenger-related facilities was calculated for baseline conditions and all nine SPAS alternatives. The square footage of existing and proposed passenger-related facilities was used for calculating water use. Water use factors are typically provided in terms of water use (in acre-feet per year (AF/yr) per unit (e.g., square foot of building space)). For this analysis, water use was projected by multiplying the factor by the appropriate passenger-related facility square footage. The data regarding baseline water use in the region and at LAX is from the 2010 timeframe.

For purposes of this analysis, passenger-related facilities include terminals and/or concourses, and the building components of ground access facilities, such as the Consolidated Rental Car Facility (CONRAC) and Intermodal Transportation Center (ITC) customer service areas, the Intermodal Transportation Facility (ITF) passenger service area, and the Ground Transportation Center (GTC) passenger processing piers. Since passengers engage in the same types of activities as retail visitors (e.g., food service, sanitary, and cleaning) and, consequently, use similar quantities of water on average per square foot of building area, this analysis uses the retail factor for potable water use that was used in the LAX Master Plan EIR, which originated from the Los Angeles Department of Water and Power (LADWP).<sup>791</sup> The water use factor used in this analysis is  $8.96 \times 10^{-5}$  AF/yr and represents average usage for this land use type.

As described in Chapter 2, *Project Description*, under each of the SPAS alternatives, some existing off-airport uses would be acquired to accommodate the proposed improvements (see Section 2.3.1.11, *Acquisition*, in Chapter 2, *Project Description*). With this acquisition, water consumption associated with these uses would be eliminated. This reduction in water consumption was not calculated as part of this analysis. Therefore, the projected water consumption associated with each SPAS alternative is a conservative estimate; water use would be lower if the methodology accounted for the reduction associated with acquisition.

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<sup>791</sup> The water factor for terminals used in the LAX Master Plan Final EIR was based on the factor for retail uses included in the City of Los Angeles' *Administrative Draft Citywide Thresholds Technical Guide* (City of Los Angeles, Environmental Affairs Department, December 1995). Although not required by CEQA, the *Administrative Draft Citywide Thresholds Technical Guide* was prepared by the City of Los Angeles as a precursor to the 2006 *L.A. CEQA Thresholds Guide*, which provides standards for the preparation of EIRs within the City. The *Administrative Draft Citywide Thresholds Technical Guide* is referenced herein as it contains water consumption factors, while the *L.A. CEQA Thresholds Guide* does not. Although not formally adopted, the water use factors contained in the *Administrative Draft Citywide Thresholds Technical Guide* were developed based upon LADWP historical data and remain valid. In recent years, water efficiency in buildings has improved. As such, these factors represent a conservative estimate of water consumption.

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The total water use for each of the SPAS alternatives was projected to the horizon year of 2025. To determine whether the increase in water use associated with the SPAS alternatives would be significant, projected water demands were compared with LADWP's projections regarding future water supply.

### 4.13.4.3 Existing Conditions

#### Water Supply

LADWP provides water service to the proposed project area. LADWP is responsible for supplying, treating, and distributing water for domestic, industrial, agricultural, and fire fighting purposes within the City. LADWP obtains its water supplies from three major sources: (1) the Owens Valley and Mono Basin via the Los Angeles Aqueduct; (2) northern California and Colorado River imports purchased from the Metropolitan Water District of Southern California (MWD); and (3) local groundwater basins. In addition to these sources, some wastewater within the LADWP service area is reclaimed for reuse as irrigation or industrial water, or for use in seawater intrusion barriers used to protect groundwater supplies. Reclaimed water is becoming a larger source of water in the overall supply portfolio.<sup>792</sup>

MWD's Integrated Water Resources Plan (IRP), which was last updated in 2010, proposes that the preferred resource mix for future MWD supply include local production (groundwater pumping and surface water diversion), water recycling, groundwater recovery, the Colorado River Aqueduct, the State Water Project, storage, and water transfers.

LADWP is responsible for planning for locally-developed water supply sources to supplement the regional supplies that are ensured by the IRP. The need for such planning is recognized in the City of Los Angeles General Plan Framework, which includes policies for addressing development of local water supplies. These plans are documented periodically in the Los Angeles Urban Water Management Plan (UWMP).<sup>793</sup> The UWMP is updated every five years, as required by the California Water Code (Section 10621a). The UWMP also accounts for the portion of projected demands not expected to be met by MWD, and includes planning for supply from sources including the Los Angeles Aqueduct, local groundwater, conservation, and reclamation.

Water conservation is an important component of the IRP and the UWMP. LADWP implements water conservation measures wherever possible. The Los Angeles City Council and various City departments, including LADWP, are currently mandating and/or implementing Best Management Practices (BMPs) for water conservation, such as ordinances, incentives, water efficient fixture installation, and retrofitting. LADWP also has conservation education and infrastructure replacement programs, and provides technical assistance to industry for conservation implementation.<sup>794</sup>

In fiscal year 2009/2010, LADWP provided 31,872 AF/yr of recycled water for municipal and industrial purposes and environmental benefits.<sup>795</sup> Reclaimed water in the LAX area is provided by the West Basin Municipal Water District's (WBMWD) Edward C. Little Water Recycling Facility (ECLWRF). The ECLWRF is a tertiary treatment plant and has a capacity of 46.8 million gallons per day (mgd) (52,000 AF/yr). The capacity will be expanded to over 72.2 mgd (81,000 AF/yr) in April 2013.<sup>796</sup> Reclaimed water pipelines provide service to the Scattergood Electric Generating Station; portions of El Segundo; areas north of LAX, including Loyola Marymount University; and the eastern portion of LAX. LAX uses reclaimed water from the WBMWD to irrigate over 35 percent of its landscaped acres. Approximately 40.2 million gallons, or 123 AF, of water is conserved each year with this reclaimed water.<sup>797</sup>

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<sup>792</sup> City of Los Angeles, Department of Water and Power, [Urban Water Management Plan](#), July 2010.

<sup>793</sup> City of Los Angeles, Department of Water and Power, [Urban Water Management Plan](#), July 2010.

<sup>794</sup> City of Los Angeles, Department of Water and Power, [Urban Water Management Plan](#), July 2010.

<sup>795</sup> City of Los Angeles, Department of Water and Power, [Urban Water Management Plan](#), July 2010.

<sup>796</sup> West Basin Municipal Water District, [Edward C. Little Water Recycling Facility Phase V Expansion Initial Study/Mitigated Negative Declaration](#), March 2011.

<sup>797</sup> City of Los Angeles, Los Angeles World Airports, [LAWA Sustainability Report](#), June 2010.

LADWP's current UWMP was adopted on April 11, 2011 (2010 UWMP).<sup>798</sup> LADWP's UWMP uses a service-area-wide method in developing City water demand projections. This methodology does not rely on individual development demands to determine area-wide growth but, instead, looks at the growth in water use for the entire service area. The UWMP provides demand projections in five-year increments through 2035. These projections include demographics, weather, and water conservation. 2010 UWMP demographic projections are based on the 2008 Regional Transportation Plan (RTP) forecast generated by the Southern California Association of Governments (SCAG). The 2008 RTP assumed a future passenger activity level at LAX of 78.9 MAP. The passenger activity level for LAX in the most recent 2012-2035 RTP/Sustainable Communities Strategy<sup>799</sup> is also 78.9 MAP. Therefore, the UWMP plan projections account for growth at LAX to 78.9 MAP.

Los Angeles citywide water use was 555,477 AF in the 2009-2010 fiscal year. Water use for 2025 is projected to be 675,600 AF. The 2010 UWMP indicates that supply will be sufficient to meet projected demands through 2035.

Under certain circumstances, a Water Supply Assessment (WSA) containing specific information from the water service provider is required in conjunction with a development project (California Water Code Sections 10910-10915). Under Senate Bill (SB) 610 (Water Code Sections 10910 and 10912), it is the responsibility of the water service provider (i.e., LADWP) to prepare a WSA for every new development "project" within its service area that is subject to CEQA. If the provider determines that water supplies are, or will be, insufficient, plans must be submitted for acquiring additional water supplies. Additionally, SB 610 requires the lead agency to include the WSA and other pertinent information in the environmental document prepared (i.e., EIR) for any project pursuant to the act. Similarly, SB 221 (Government Code Sections 65867.5 and 66473.7), a companion bill to SB 610, modifies state law to focus on the link between water supply and land use planning, particularly for new large projects in non-urban areas. LADWP has incorporated the provisions of SB 610 and SB 221 into its water supply planning process. The WSA for individual projects, such as the LAX Master Plan, in conformance with the UWMP, evaluates the quality and reliability of existing and projected water supplies, as well as alternative sources of water supply and how they would be secured if needed.

A WSA for the LAX Master Plan was prepared by LADWP in 2003. A copy of the WSA is provided in Appendix B, *Agency Coordination*. The WSA is based on the 2001 UWMP, which projected water demand to 2020, and was based on a projected activity level at LAX of 78.9 MAP. Therefore, even though the WSA was based on a UWMP with a 2020 timeframe, as LAX passenger activities in 2025 would be the same as assumed in the WSA, the WSA findings regarding water demand remain valid. The WSA assumed a water use within the LAX Master Plan boundaries of 3,798 AF of water annually. This projection included water generation associated with airport facilities (including terminals, cargo, maintenance, and ancillary uses), non-airport land uses within LAX Northside, and land uses within the LAX Master Plan boundaries that would not be acquired under Alternative D of the LAX Master Plan. The WSA found that "adequate water supplies will be available to meet the water demands of the project."<sup>800</sup>

### **Water Use Policies at LAX**

In March 2005, the LAWA Environmental Management Division (EMD) prepared the *LAX Street Frontage and Landscape Plan Update* as part of LAX Master Plan Commitment DA-2, Update and Integrate Design Plans and Guidelines.<sup>801</sup> The purpose of this plan is to provide integrated and coordinated landscape design guidelines for new development along the perimeter areas of LAX. The *LAX Street Frontage and*

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<sup>798</sup> City of Los Angeles, Department of Water and Power, Urban Water Management Plan, July 2010.

<sup>799</sup> Southern California Association of Governments, 2012-2035 Regional Transportation Plan/Sustainable Communities Strategy, April 2012.

<sup>800</sup> City of Los Angeles, Department of Water and Power, Water Resources Business Unit, Water Supply Availability Assessment for the Los Angeles World Airport - LAX Master Plan Project - Alternative D, June 10, 2003. A copy of this correspondence is provided in Appendix B, *Agency Coordination*.

<sup>801</sup> City of Los Angeles, Los Angeles World Airports, Los Angeles International Airport Street Frontage and Landscape Development Plan Update, March 2005.

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*Landscape Plan Update* includes a number of objectives pertaining to water use at LAX, including requirements pertaining to water efficient irrigation systems and practices, use of drought-tolerant plant species, and water efficient landscape and street frontage designs.

In 2008, LAWA prepared the *Los Angeles World Airports Sustainability Plan* (Sustainability Plan).<sup>802</sup> The Sustainability Plan outlines LAWA's goals regarding implementation of initiatives set forth by the Mayor, the City Council, and the Board of Airport Commissioners pertaining to sustainability. The Sustainability Plan includes an objective to increase water conservation in all airport facilities and for all operations, with targets for increasing the use of reclaimed water and increasing the acreage covered with native and drought-tolerant plants. The Sustainability Plan also includes targets pertaining to the reduction of potable water use at LAX facilities.

In February 2010, LAWA prepared the *Sustainable Airport Planning, Design and Construction Guidelines* (LSAG) for all its airports.<sup>803</sup> LAWA developed these guidelines to formalize its commitment to building sustainability. Among numerous other provisions, the LSAG includes guidelines addressing landscape design and water efficiency and conservation, with specific performance standards for the reduction or elimination of potable water use for landscaping, as well as for efficient water use in landscape irrigation and buildings.

These and prior efforts have resulted in a number of programs that reduce potable water use at LAX. As noted previously, approximately 35 percent of all landscaped areas at LAX is irrigated by reclaimed water. Much of the irrigation system at LAX is monitored and controlled through a centralized irrigation control center, further conserving water resources. Reclaimed water is used for dust control on LAWA construction projects and at the Westchester Golf Course. LAWA is working with LADWP to expand reclaimed water distribution facilities at LAX to include portions of the airport along Imperial Highway, the Sepulveda/Imperial gateway area, and the Central Terminal Area (CTA). LAWA is also incorporating water conservation into new construction. The recently completed aircraft rescue and fire fighting station (ARFF) achieved LEED® Gold certification in November 2011, in part due to the installation of low-flow plumbing fixtures that will result in annual water savings of 29 percent. The Tom Bradley International Terminal (TBIT) renovation project, which was certified as LEED® Silver in March 2010, was designed and built to use twenty percent less water than a non-LEED® building. In addition, LAWA has installed low-flow fixtures on all toilets and sinks in all LAX terminals and buildings, and recycles water at the LAX fleet vehicle car wash facility. These initiatives resulted in a 14 percent decrease in per passenger potable water use at LAX between 2007 and 2009.<sup>804</sup>

#### **Baseline LAX Water Use**

Site-specific water use data are not collected at LAX. To calculate baseline (2010) water use, usage-based factors were used, as described in Section 4.13.4.2 above. These water use factors were applied to building square footages associated with SPAS, namely concourse areas at Terminals 1, 2, and 3. Based on these factors, baseline water use at LAX for passenger-related facilities is approximately 65 AF/yr (see **Table 4.13.4-1**). This represents 0.01 percent of water use within the City of Los Angeles.

#### **4.13.4.4 Thresholds of Significance**

A significant water use impact would occur if the direct and indirect changes in the environment that may be caused by the particular SPAS alternative would result in the following future condition:

- ◆ An exceedance of regional water supply due to project-related water demand.

This threshold was developed based upon guidance provided in the 2006 L.A. CEQA Thresholds Guide.

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<sup>802</sup> City of Los Angeles, Los Angeles World Airports, [Los Angeles World Airports Sustainability Plan](#), April 2008.

<sup>803</sup> City of Los Angeles, Los Angeles World Airports, [Sustainable Airport Planning, Design and Construction Guidelines for Implementation on All Airport Projects](#), Version 5.0, prepared by LAWA and CDM Smith, February 2010.

<sup>804</sup> City of Los Angeles, Los Angeles World Airports, [Los Angeles World Airports Sustainability Report](#), June 2010.

Table 4.13.4-1  
Baseline (2010) and Projected (2025) Water Use (AF/yr)

Building Components	Baseline Conditions	Alt. 1			Alt. 2			Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7	Alt. 8	Alt. 9
		Airfield/Terminals	Ground Access	Total Alt. 1	Airfield/Terminals	Ground Access	Total Alt. 2							
<b>Terminals</b>														
Terminal 0	NA	330,000	NA	330,000	330,000	NA	330,000	NA	NA	330,000	330,000	325,000	NA	NA
Terminal 1 Concourse	138,000	114,000	NA	114,000	114,000	NA	114,000	See Linear Concourse	138,000	114,000	114,000	114,000	NA	NA
Terminal 2 Concourse	306,000	306,000	NA	306,000	306,000	NA	306,000	See Linear Concourse	306,000	306,000	306,000	306,000	NA	NA
Terminal 3 Concourse	279,000	223,000	NA	223,000	223,000	NA	223,000	See Linear Concourse	279,000	223,000	223,000	205,000	NA	NA
New Linear Concourse	NA	NA	NA	NA	NA	NA	NA	1,400,000	NA	NA	NA	NA	NA	NA
New Passenger Processing Terminals	NA	NA	NA	NA	NA	NA	NA	2,151,000	NA	NA	NA	NA	NA	NA
Bradley West North Concourse Extension	NA	113,800	NA	113,800	113,800	NA	113,800	NA	NA	73,300	113,800	64,400	NA	NA
MSC North Concourse Extension	NA	249,400	NA	249,400	249,400	NA	249,400	NA	NA	204,800	249,400	190,700	NA	NA
<b>Subtotal Terminal Components</b>	<b>723,000</b>	<b>1,336,200</b>	<b>0</b>	<b>1,336,200</b>	<b>1,336,200</b>	<b>0</b>	<b>1,336,200</b>	<b>3,551,000</b>	<b>723,000</b>	<b>1,251,100</b>	<b>1,336,200</b>	<b>1,205,100</b>	<b>0</b>	<b>0</b>
<b>Ground Access Components</b>														
Ground Transportation Center	NA	NA	NA	NA	NA	NA	NA	1,400,000	NA	NA	NA	NA	NA	NA
Intermodal Transportation Center	NA	NA	NA	NA	NA	NA	NA	85,000	NA	NA	NA	NA	NA	NA
Intermodal Transportation Facility	NA	NA	75,000	75,000	NA	75,000	75,000	NA	NA	NA	NA	NA	75,000	75,000
CONRAC	NA	NA	NA	NA	NA	NA	NA	89,000	89,000	NA	NA	NA	85,000	85,000
<b>Subtotal Ground Access Components</b>	<b>0</b>	<b>0</b>	<b>75,000</b>	<b>75,000</b>	<b>0</b>	<b>75,000</b>	<b>75,000</b>	<b>1,574,000</b>	<b>89,000</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>160,000</b>	<b>160,000</b>
<b>Total Building Area (sf)</b>	<b>723,000</b>	<b>1,336,200</b>	<b>75,000</b>	<b>1,411,200</b>	<b>1,336,200</b>	<b>75,000</b>	<b>1,411,200</b>	<b>5,125,000</b>	<b>812,000</b>	<b>1,251,100</b>	<b>1,336,200</b>	<b>1,205,100</b>	<b>160,000</b>	<b>160,000</b>
<b>Total Water Consumption (AF/yr)</b>	<b>64.78</b>	<b>119.72</b>	<b>6.72</b>	<b>126.44</b>	<b>119.72</b>	<b>6.72</b>	<b>126.44</b>	<b>459.20</b>	<b>72.76</b>	<b>112.10</b>	<b>119.72</b>	<b>107.98</b>	<b>14.34</b>	<b>14.34</b>
<b>% of LADWP Demand</b>	<b>0.0117%</b>	<b>0.0177%</b>	<b>0.0010%</b>	<b>0.0187%</b>	<b>0.0177%</b>	<b>0.0010%</b>	<b>0.0187%</b>	<b>0.0680%</b>	<b>0.0108%</b>	<b>0.0166%</b>	<b>0.0177%</b>	<b>0.0160%</b>	<b>0.0021%</b>	<b>0.0021%</b>

Note:

Alternatives 1 through 4 consist of airfield, terminal, and ground access improvements. Alternatives 5 through 7 focus on airfield and terminal improvements only. Alternatives 8 and 9 focus on ground access improvements only. The airfield/terminal improvements associated with Alternatives 1, 2, 5, 6, and 7 could be paired with the ground access improvements associated with Alternatives 1, 2, 8, or 9. Similarly, the ground access improvements associated with Alternatives 1, 2, 8, and 9 could be paired with the airfield improvements associated with Alternatives 1, 2, 5, 6, or 7. The full impacts of any alternative must consider airfield, terminal, and ground access contributions. The airfield, terminal, and ground access improvements associated with Alternatives 3 and 4 are specific to each of those alternatives and cannot be paired with other alternatives.

Source: CDM Smith, 2012.

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#### 4.13.4.5 Applicable LAX Master Plan Commitments and Mitigation Measures

As part of the LAX Master Plan, LAWA adopted three commitments pertaining to water use/public utilities in the Alternative D Mitigation Monitoring and Reporting Program (MMRP). Two of the three commitments are applicable to the SPAS alternatives and were considered in the water use analysis herein.

◆ **W-1. Maximize Use of Reclaimed Water.**

To the extent feasible, LAWA will maximize the use of reclaimed water in Master Plan-related facilities and landscaping. The intent of this commitment is to maximize the use of reclaimed water as an offset for potable water use and to minimize the potential for increased water use resulting from implementation of the LAX Master Plan. This commitment will also facilitate achievement of the City of Los Angeles' goal of increased beneficial use of its reclaimed water resources. This commitment will be implemented by various means, such as installation and use of reclaimed water distribution piping for landscape irrigation.

◆ **W-2. Enhance Existing Water Conservation Program.**

LAWA will enhance the existing Street Frontage and Landscape Plan for LAX to ensure the ongoing use of water conservation practices at LAX facilities.<sup>805</sup> The intent of this program, to minimize the potential for increased water use due to implementation of the LAX Master Plan program, is also in accordance with regional efforts to ensure adequate water supplies for the future. Features of the enhanced conservation program will include identification of current water conservation practices and an assessment of their effectiveness; identification of alternate future conservation practices; continuation of the practice of retrofitting and installing new low-flow toilets and other water efficient fixtures in all LAX buildings, as remodeling takes place or new construction occurs; use of BMPs for maintenance; use of water efficient vegetation for landscaping, where possible; and continuation of the use of fixed automatic irrigation for landscaping.

#### 4.13.4.6 Impacts Analysis

This section describes the impacts related to water supply for the SPAS alternatives. For each alternative, the effects are discussed as they relate to projected water demand. This analysis focuses on water use associated with passenger-related facilities. **Table 4.13.4-1** identifies water demand associated with passenger-related facilities for the SPAS alternatives as well as under 2010 baseline conditions.

##### 4.13.4.6.1 **Alternative 1**

Under Alternative 1, the passenger-related building area would increase compared to baseline conditions. Although concourse areas associated with Terminals 1 and 3 would decrease, there would be new concourse areas associated with Terminal 0 and the northerly extensions of Bradley West and the Midfield Satellite Concourse (MSC). In addition, this alternative would include a passenger service area at the ITF. As shown in **Table 4.13.4-1**, under Alternative 1, water demand from passenger-related facilities would be 126.44 AF/yr in 2025. This would represent less than 0.02 percent of anticipated LADWP water demand in 2025, for which LADWP forecasts sufficient water supplies, as explained below. This increase in demand would not be significant compared to the total future regional water supply.

LADWP's 2010 UWMP projects that there will be adequate water supply to meet City demands through 2035.<sup>806</sup> As indicated above, the LADWP projections are based on the 2008 RTP, which, in turn, includes

<sup>805</sup> Subsequent to the approval of the LAX Master Plan, LAWA prepared the *LAX Street Frontage and Landscape Development Plan Update*. The updated plan addresses water conservation.

<sup>806</sup> City of Los Angeles, Department of Water and Power, *Urban Water Management Plan*, 2010.

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a passenger activity level of 78.9 MAP for LAX.<sup>807</sup> Therefore, LADWP's UWMP projections account for future passenger activity at LAX of 78.9 MAP, the same level associated with Alternative 1.

The WSA prepared by LADWP for the LAX Master Plan indicates that "adequate water supplies will be available to meet the water demands of the project." As noted above, the WSA for the LAX Master Plan is based on the 2001 UWMP, which projected water demand to 2020. The WSA was based on a projected activity level at LAX of 78.9 MAP. Therefore, even though the WSA was based on a UWMP with a 2020 timeframe, as LAX passenger activities in 2025 would be the same as assumed in the WSA, the WSA findings remain valid. Furthermore, passenger-related facilities under Alternative 1 would be substantially smaller than the analogous facilities under the LAX Master Plan (1,411,200 square feet under Alternative 1 compared to 5,125,000 square feet under Alternative 3). As a result, water demand under Alternative 1 would be 73 percent less than under Alternative 3 in 2025. Therefore, the WSA finding that adequate water supplies would be available to meet the water demand of the project would remain unchanged under Alternative 1. This was confirmed by LADWP, which stated that a new WSA is not needed for the LAX SPAS EIR.<sup>808</sup>

Under Alternative 1, LAWA would implement LAX Master Plan Commitments W-1, Maximize Use of Reclaimed Water, and W-2, Enhance Existing Water Conservation Program, to reduce water use associated with Alternative 1. As a result, water demand related to Alternative 1 would not exceed regional water supply, and impacts related to water use would be less than significant.

##### 4.13.4.6.2 Alternative 2

Under Alternative 2, impacts associated with water demand from passenger-related facilities would be the same as described above for Alternative 1. As with Alternative 1, project-related water demand is anticipated in LADWP's 2010 UWMP and would be accommodated by projected future water supplies. In addition, project-related water demand would be reduced through implementation of LAX Master Plan Commitments W-1, Maximize Use of Reclaimed Water, and W-2, Enhance Existing Water Conservation Program. For these reasons, water demand related to Alternative 2 would not exceed regional water supply, and impacts related to water use under Alternative 2 would be less than significant.

##### 4.13.4.6.3 Alternative 3

Under Alternative 3, the passenger-related building area would increase compared to baseline conditions. Terminals 1, 2, and 3 would be replaced with a linear concourse and four new terminals would be built in the central portion of the CTA. In addition, this alternative would include passenger-related facilities at the GTC, ITC, and CONRAC. As shown in **Table 4.13.4-1**, water demand from passenger-related facilities would be 459.20 AF/yr in 2025. This would represent almost 0.07 percent of anticipated LADWP water demand in 2025, for which LADWP forecast sufficient water supplies, as explained below. This increase in demand would not be significant compared to the total future regional water supply.

LADWP's 2010 UWMP projects that there will be adequate water supply to meet City demands through 2035.<sup>809</sup> As indicated above, the LADWP projections are based on the 2008 RTP, which, in turn, includes a passenger activity level of 78.9 MAP for LAX. Therefore, LADWP's UWMP projections account for future passenger activity at LAX of 78.9 MAP, the same level associated with Alternative 3.

The WSA prepared by LADWP for the LAX Master Plan indicates that "adequate water supplies will be available to meet the water demands of the project." As the improvements associated with Alternative 3 are consistent with the LAX Master Plan, the conclusions of the WSA apply to Alternative 3. As noted above, the WSA for the LAX Master Plan is based on the 2001 UWMP, which projected water demand to 2020. The WSA was based on a projected activity level at LAX of 78.9 MAP. Therefore, even though the

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<sup>807</sup> SCAG recently adopted the 2012-2035 RTP/SCS. However, the current UWMP is based on the 2008 RTP. It should be noted that the 2012-2035 RTP/SCS also includes a future (2035) passenger activity level of 78.9 MAP for LAX.

<sup>808</sup> Kwan, Delon, City of Los Angeles, Department of Water and Power, [Personal Communication](#), June 13, 2012.

<sup>809</sup> City of Los Angeles, Department of Water and Power, [Urban Water Management Plan](#), 2010.



WSA was based on a UWMP with a 2020 timeframe, as LAX passenger activities in 2025 would be the same as assumed in the WSA, the WSA findings remain valid.

As with Alternative 1, project-related water demand would be reduced through implementation of LAX Master Plan Commitments W-1, Maximize Use of Reclaimed Water, and W-2, Enhance Existing Water Conservation Program. For these reasons, water demand related to Alternative 3 would not exceed regional water supply, and impacts related to water use under Alternative 3 would be less than significant.

### 4.13.4.6.4 Alternative 4

Under Alternative 4, the only facility that would increase passenger-related building area over baseline conditions and result in an increased water demand would be the CONRAC customer service area. As shown in **Table 4.13.4-1**, water demand for Alternative 4 would be 72.76 AF/yr, which would represent 0.01 percent of anticipated LADWP water demand in 2025. This increase in demand would not be significant compared to the total future regional water supply.

LADWP's 2010 UWMP projects that there will be adequate water supply to meet City demands through 2035.<sup>810</sup> As indicated above, the LADWP projections are based on the 2008 RTP, which, in turn, includes a passenger activity level of 78.9 MAP for LAX. Therefore, LADWP's UWMP projections account for future passenger activity at LAX of 78.9 MAP, the same level associated with Alternative 4.

The WSA prepared by LADWP for the LAX Master Plan indicates that "adequate water supplies will be available to meet the water demands of the project." The passenger-related facilities under Alternative 4 would be substantially smaller than the analogous facilities under the LAX Master Plan (812,000 square feet under Alternative 4 compared to 5,125,000 square feet under Alternative 3). As a result, water demand related to these facilities would be almost 84 percent less than under Alternative 3 in 2025. Therefore, the WSA finding that adequate water supplies would be available to meet the water demand of the project would remain unchanged under Alternative 4.

As with Alternative 1, project-related water demand would be reduced through implementation of LAX Master Plan Commitments W-1, Maximize Use of Reclaimed Water, and W-2, Enhance Existing Water Conservation Program. For these reasons, water demand related to Alternative 4 would not exceed regional water supply, and impacts related to water use under Alternative 4 would be less than significant.

### 4.13.4.6.5 Alternative 5

Alternative 5 focuses on airfield and terminal improvements. Under Alternative 5, impacts related to water supply associated with terminal uses would be similar to those described above for Alternative 1. New concourse areas associated with Alternative 5 would be similar to those under Alternative 1, although approximately 6 percent less square footage would be developed under Alternative 5 due to the more southerly aircraft parking limit line. As shown in **Table 4.13.4-1**, water demand for Alternative 5 would be 112.10 AF/yr, which would represent less than 0.02 percent of anticipated LADWP water demand in 2025. As with Alternative 1, based on LADWP's 2010 UWMP and the WSA prepared for the LAX Master Plan, there would be sufficient water supply to provide for this demand. Project-related water demand would be reduced through implementation of LAX Master Plan Commitments W-1, Maximize Use of Reclaimed Water, and W-2, Enhance Existing Water Conservation Program. For these reasons, water demand related to Alternative 5 would not exceed regional water supply, and impacts related to water use under Alternative 5 would be less than significant.

### 4.13.4.6.6 Alternative 6

Similar to Alternative 5, Alternative 6 focuses on airfield and terminal improvements. Under Alternative 6, impacts related to water use associated with terminal uses would be the same as described above for Alternative 1. As shown in **Table 4.13.4-1**, water demand for Alternative 6 would be 119.72 AF/yr, which would represent less than 0.02 percent of anticipated LADWP water demand in 2025. As with

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<sup>810</sup> City of Los Angeles, Department of Water and Power, [Urban Water Management Plan](#), 2010.

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Alternative 1, based on LADWP's 2010 UWMP and the WSA prepared for the LAX Master Plan, there would be sufficient water supply to provide for this demand. Project-related water demand would be reduced through implementation of LAX Master Plan Commitments W-1, Maximize Use of Reclaimed Water, and W-2, Enhance Existing Water Conservation Program. For these reasons, water demand related to Alternative 6 would not exceed regional water supply, and impacts related to water use under Alternative 6 would be less than significant.

##### **4.13.4.6.7 Alternative 7**

Similar to Alternative 5, Alternative 7 focuses on airfield and terminal improvements. Under Alternative 7, the impacts related to water supply associated with terminal uses would be similar to those described above for Alternative 1, although almost 15 percent less square footage would be developed under Alternative 7 due to the more southerly aircraft parking limit line. As shown in **Table 4.13.4-1**, water demand for Alternative 7 would be 107.98 AF/yr, which would represent less than 0.02 percent of anticipated LADWP water demand in 2025. As with Alternative 1, based on LADWP's 2010 UWMP and the WSA prepared for the LAX Master Plan, there would be sufficient water supply to provide for this demand. Project-related water demand would be reduced through implementation of LAX Master Plan Commitments W-1, Maximize Use of Reclaimed Water, and W-2, Enhance Existing Water Conservation Program. For these reasons, water demand related to Alternative 7 would not exceed regional water supply, and impacts related to water use under Alternative 7 would be less than significant.

##### **4.13.4.6.8 Alternative 8**

Alternative 8 focuses on ground access improvements. Ground access improvements that would increase water demand include the ITF passenger service area and the CONRAC customer service area. As shown in **Table 4.13.4-1**, water demand from the passenger-related components of these facilities would be 14.34 AF/yr, which would represent 0.002 percent of anticipated LADWP water demand in 2025.

LADWP projects that there will be adequate water supply to meet City demands through 2035. As indicated above, the LADWP projections are based on the 2008 RTP, which, in turn, includes a passenger activity level of 78.9 MAP for LAX. Therefore, LADWP's 2010 UWMP projections account for future passenger activity at LAX of 78.9 MAP, the same level associated with Alternative 8.

The WSA prepared by LADWP for the LAX Master Plan indicates that "adequate water supplies will be available to meet the water demands of the project." The passenger-related components of the ground access facilities under Alternative 8 would be substantially smaller than the analogous facilities under the LAX Master Plan (160,000 square feet under Alternative 8 compared to 1,574,000 square feet under Alternative 3). As a result, water demand related to these facilities would be almost 90 percent less than under Alternative 3 in 2025. Therefore, the WSA finding that adequate water supplies would be available to meet the water demand of the project would remain unchanged under Alternative 8.

As with Alternative 1, project-related water demand would be reduced through implementation of LAX Master Plan Commitments W-1, Maximize Use of Reclaimed Water, and W-2, Enhance Existing Water Conservation Program. For these reasons, water demand related to Alternative 8 would not exceed regional water supply, and impacts related to water use under Alternative 8 would be less than significant.

##### **4.13.4.6.9 Alternative 9**

Under Alternative 9, impacts associated with water demand from the passenger-related components of ground access facilities would be the same as described above for Alternative 8. As with Alternative 8, project-related water demand is anticipated in LADWP's 2010 UWMP and would be accommodated by projected future water supplies. In addition, project-related water demand would be reduced through implementation of LAX Master Plan Commitments W-1, Maximize Use of Reclaimed Water, and W-2, Enhance Existing Water Conservation Program. For these reasons, water demand related to

Alternative 9 would not exceed regional water supply, and impacts related to water use under Alternative 9 would be less than significant.

### 4.13.4.6.10 Summary of Impacts

Under all of the SPAS alternatives, the passenger-related building area would increase compared to baseline conditions, resulting in an increase in water demand. The highest water demand would be associated with Alternative 3, as this alternative includes the greatest amount of new building area, whereas the lowest water demand would occur under Alternative 4.

LADWP projects that there will be adequate water supply to meet City demands through 2035. As indicated above, the LADWP projections are based on the 2008 RTP, which, in turn, includes a passenger activity level of 78.9 MAP for LAX. Therefore, LADWP's UWMP projections account for future passenger activity at LAX of 78.9 MAP, the same level associated with the SPAS alternatives. The WSA prepared by LADWP for the LAX Master Plan indicates that "adequate water supplies will be available to meet the water demands of the project." Because it was based on the 2001 UWMP, which was based on a projected activity level at LAX of 78.9 MAP, the conclusions of the WSA are still valid. LAWA would continue to implement and enhance water conservation measures at LAX, in fulfillment of LAX Master Plan Commitments W-1, Maximize Use of Reclaimed Water, and W-2, Enhance Existing Water Conservation Program, which would serve to reduce water use under the SPAS alternatives. For these reasons, water demand under all of the alternatives would not exceed regional water supply, and impacts associated with water use from the increase in passenger-related building area would be less than significant.

### 4.13.4.7 Mitigation Measures

Implementation of LAX Master Plan Commitments W-1, Maximize Use of Reclaimed Water, and W-2, Enhance Existing Water Conservation Program, would ensure that impacts related to water use associated with Alternatives 1 through 9 would be less than significant. Therefore, no mitigation measures specific to SPAS are required.

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